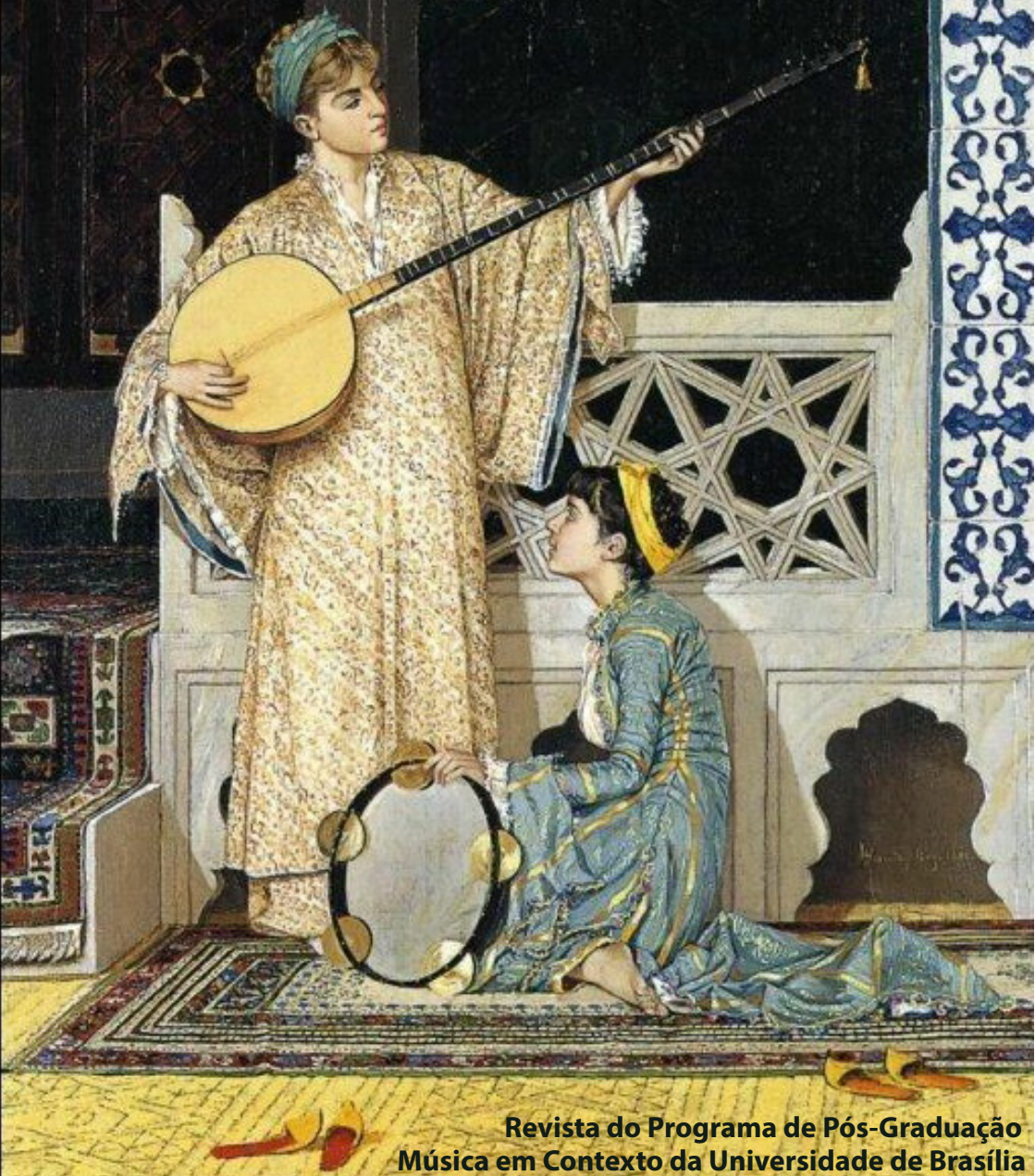


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Two Musician Girls (1880)

Óleo sobre tela, 58 cm (alt) x 39 cm (larg)

https://commons.wikimedia.org/wiki/File:Osman_Hamdi_Bey_-_Two_Musician_Girls.jpg

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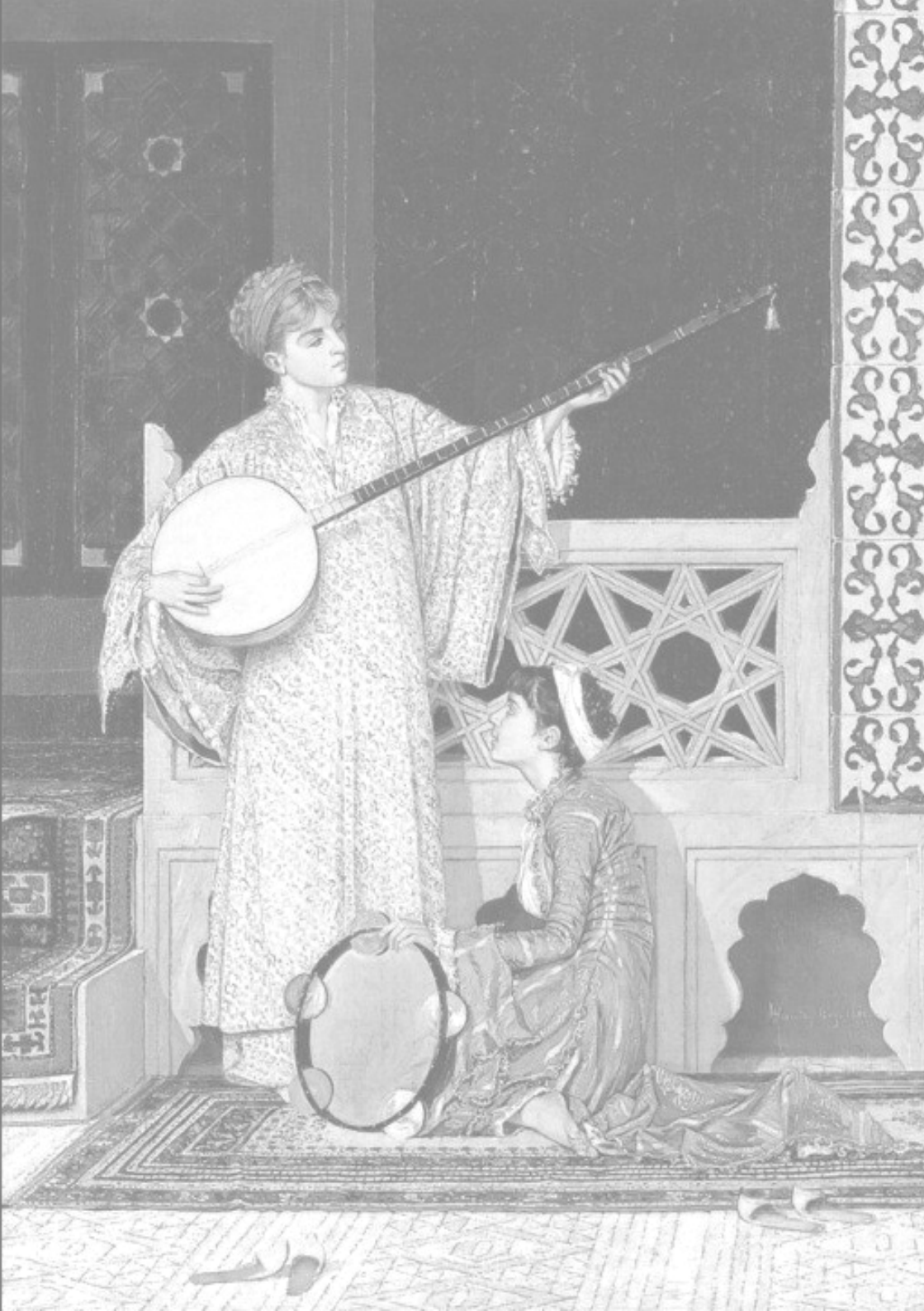


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EDITORIAL

Beatriz Magalhães Castro

Neste número da Revista Música em Contexto convidamos para a leitura dos textos aqui publicados, resultados de colaborações, de uma parte, com o Centro para Estudos Avançados em Música Dr. Erol Üçer (MIAM) filiado à Universidade Técnica de Istanbul (ITÜ) e, de outra, com a seção brasileira da Associação Brasileira de Bibliotecas, Arquivos e Centros de Documentação em Música (IAML/AIBM-Brasil).

A colaboração com o centro de Istanbul surgiu no contexto do interesse conjunto em fomentar o intercâmbio entre nossas instituições estendendo a sua abrangência a países externos aos eixos tradicionais da Europa e Estados Unidos da América.

Alexandros Charkiolakis aborda questões historiográficas sobre a música grega a partir do acesso a repositórios digitais recentes e o impacto sobre a compreensão musicológica entre centro/periferia, remodelando e reconfigurando perspectivas anteriores sobre a história da música na Grécia.

Reuben de Lautour aborda as especulações que surgiram sobre o impacto do fonógrafo inclusive nos escritos de Thomas Edison, revelando uma retórica mitológica e mítica em gramáticas mais profundas de uma *mitopoeses*, um tipo de mitologia fabricada com intuito de construir uma agenda cultural utópica.

Jane Ellen Harrison oferece um estudo sobre as conexões entre Claude Debussy e o filósofo Henri Bergson no contexto do movimento espiritualista. Sua análise utiliza a teoria do campo de Bourdieu e nos revela o alto capital simbólico de ambos expondo as afinidades estilísticas e estruturais observadas nas suas obras.

Robert F. Reigle rediscute similaridades entre a cultura amazônica (Enauene-Naue) e da Nova Guiné (Nekeni) nas transformações da voz humana na voz de espíritos por meio de instrumentos musicais, prática relativamente rara segundo o autor. Discute assim o conceito de mono ou poli gênese e os campos do relativismo cultural, dos universais e dos estudos evolucionistas para evidenciar a importância de estudos comparados em etnomusicologia.

Paul Whitehead aborda aspecto pouco explorado do compositor Igor Stravinsky, qual seja, as fontes que subsidiaram o seu interesse como estudioso da música antiga que o terão influenciado na sua adoção do neoclassicismo mesmo antes de emigrar para Los Angeles (EUA) em 1939.

Publicamos ainda resultados da colaboração com a seção brasileira da Associação Brasileira de Bibliotecas, Arquivos e Centros de Documentação em Música (IAML/AIBM-Brasil) e com grupos de repertórios internacionais como o Repertório Internacional de Fontes Musicais (RISM), estabelecendo diálogo direto e profícuo com a área da Ciência da Informação aplicada à música na preservação, estudo e difusão de fontes musicais.

Valia Vraka e Alexandros Charkiolakis exploram os avanços da digitalização nos arquivos Biblioteca de Música da Grécia Lillian Voudouri, especialmente uma coleção de canções gregas de autoria de compositores ditos periféricos como Kokkinos, Mantzaros, Kaisaris, Karantzas, Spinellis, Tsitsanis, Souyoul e Theodorakis. Os autores discutem a importância e o significado desta coleção para a vida musical e a história da música grega.

Juliana Rocha de Faria Silva, Fernando William Cruz e Lillian Maria Araújo de Rezende Alvares discorrem sobre a representação e recuperação da informação musical sob a perspectiva de Alexander

Mclane (1996) e J. Stephen Downie (2003). O trabalho recebeu premiação como melhor trabalho apresentado no 10º Congresso Brasileiro de Pesquisa e Sistemas de Informação em Música (IAML/AIBM-Brasil), realizado em 2013 na Universidade de Brasília.

Pablo Sotuyo Blanco discute a notação musical no campo da representação da informação musical com foco sobre o seu tratamento na base RISM, discutindo como novas notações, especialmente aquelas geradas a partir do século XX, podem ser abordadas e incluídas a partir da renovação de códigos informacionais.

Por fim, Luciana Grings nos relata sobre o histórico e a situação da Divisão de Música e Arquivo Sonoro (DIMAS) da Fundação Biblioteca Nacional, considerado como o maior centro de documentação musical da América Latina, reportando sobre os seus desafios atuais.

Este número nos oferece assim um amplo espectro das abordagens e campos da musicologia contemporânea expandindo fronteiras mas convergindo em problemáticas comuns. Esta convergência surge nas formas de construção de objetos de estudo e propostas de narrativas historiográficas significativas a países tradicionalmente não alinhados aos principais eixos de produção de conhecimento musicológico.

Desejamos a todos uma ótima leitura.

REFRAMING AND RESHAPING GREEK MUSIC HISTORY

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Abstract: Digitization projects across cultural sectors have revealed and gave the opportunity for researchers to shape and refocus their work around new perspectives. This meant that many new resources have been made available, sources that were not even within the scope of researchers. This has been also valid for musicologists. Through these new resources that were made available not only locally but globally, musicologists gained access into new archival repositories that were based far away or they were unknown. But these practices had another immediate effect and that was the impact that they could have to the understanding of music history in full. This is even more visible when someone is working with subjects that are set on the periphery and somehow away from the center of the established scholarship. Therefore, in this article I will be focusing on how the understanding of Greek music history has been affected and reshaped due to the ongoing revelation and wide access of various resources that have been made available towards these last years.

Keywords: Greek music history, digital repositories, archives, research.

REENQUADRANDO E REFORMATANDO A HISTÓRIA DA MÚSICA GREGA

Resumo: Projetos de digitalização em todos os setores culturais revelaram e deram a oportunidade aos pesquisadores de moldar e reorientar seu trabalho em torno de novas perspectivas. Isso significou que muitos novos recursos foram disponibilizados, fontes que nem sequer estavam no escopo dos pesquisadores. Isso também foi válido para musicólogos. Por meio desses novos recursos que foram disponibilizados não apenas localmente, mas globalmente, os

musicólogos ganharam acesso a novos repositórios arquivísticos distantes ou desconhecidos. Mas essas práticas tiveram outro efeito imediato e esse foi o impacto que poderiam ter na compreensão da história da música de forma plena. Isto se torna ainda mais visível quando alguém está trabalhando com assuntos situados na periferia e de alguma forma longe do centro do conhecimento estabelecido. Portanto, neste artigo, vou me concentrar em como a compreensão da história da música grega foi afetada e reformulada devido a revelação contínua e o amplo acesso de vários recursos que foram disponibilizados para esses últimos anos.

Palavras-chave: História da música grega, repositórios digitais, arquivos, pesquisa.

Greece has been a country that, musically, was at the periphery of Europe both in order of significance but also as a factor of relatively low impact in the European music history. This is more than obvious if one takes a closer look to the corpus of research on the topic internationally and see the amount of publications in the past fifty years or so. However, in the recent years this seems to be changing with a systematic approach to all those European peripheries that could offer new scope for research and bring new interest in the musicological field¹. Therefore, music for peripheries such as Greece, Serbia, Bulgaria and others seem to be gaining a significant amount of attention from the scholarly community. Of course, this is not a coincidence. As I will argue further, I believe that it has to do with two specific conditions that have seen a sense of development in the recent years. The first is the understanding of a holistic approach in

1 See, for instance, the quite recent publication of Samson (2013), which is a perfect example of such an example of a publication from a major scholar. Also, one could refer to the bibliography section of this particular book for a better understanding of all recent research.

the music history of Europe, which, however, I will not go into much detail in this article². The other factor though, in which I am going to focus, has to do with the fact that more resources are currently available. For discussing this issue, I will use the Greek art music world as a case study of how newly available resources have affected our understanding of music history and, in a sense, have reshaped it in order to be more accurate.

First, though, I need to go into a short retrospective narration concerning the history of musicological research in Greece and then, discuss the recent developments of digital music repositories that came as a result of extensive digitization projects held. Through this process I hope that I will be able to draw a clear picture of where we stand today, us who work on this field, and describe the framework within which we research and disseminate information.

The first university music department in Greece was established in the Aristotle University of Thessaloniki in 1984³ and musicology found its long-awaited formal establishment in an academic environment in order to start functioning as a field of study and, most importantly, field of research. Until then musicology was a discipline that applied to individual researchers outside the academic field or it was a topic tendered additionally to other disciplines in university departments such as philosophy, philology, sociology and others, making it obviously difficult to be established as a separate scientific branch of the humanities. In the years to come, three more music departments were established, with the last one being found in the University of Macedonia, again in Thessaloniki, in 1996⁴.

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- 2 It should not go unnoticed the fact that the International Musicological Society has recently established a separate Regional Association under the topic "Study of Music of the Balkans". This specific Association has proven extremely active the past two years with conferences being organized and articles being published.
 - 3 For more information one can see at <http://www.mus.auth.gr/cms/?q=en> accessed 10 October 2015.
 - 4 One can browse the music departments web pages at the following URLs: Ionian University Music Department <http://www.ionio.gr/central/en/maa/>, University of

Since musicology started gaining a valid status, research was being carried out in most of these institutions. This had as a result a series of doctoral dissertations to be produced in the consecutive years and new topics of research to crop up with individual research being initiated in private, but also, public archives. Moreover, musicologists who had the chance to be educated abroad were able to return and offer expertise and, most importantly, methodological foundations in order to train a younger generation of musicologists.

An important addition that serves the whole musicological community was the establishment of the Music Library of Greece "Lilian Voudouri" that was based in the Athens Concert Hall since the Library's establishment. The organized Greek Music Archive that incorporated important archival material from Greek composers and musicians⁵ came to fulfil a need that seemed to be in order for a long time. Archival research has never been a priority before or it was touched upon selectively on an individual basis, apart from some few organized archives that existed and were accessible to the public, such as the Manolis Kalomiris Society for instance⁶. With the establishment of the Music Library of Greece and the close collaboration with researchers from the university music departments, the history of Greek art music started shaping up and many vague and blank spots seemed to be clarifying. This had as a result a more pragmatic and scientifically accurate approach to the historical facts, away from romanticized and superfluous generalisations which were actually the norm for a long time before the establishment of any of the scientific bodies of the ones mentioned above.

Athens Music Department <http://en.music.uoa.gr/> and University of Macedonia Department of Music Science and Art <http://www.uom.gr/index.php?tmima=9> accessed 10 October 2015.

- 5 One can access the list of all the available archives at <http://www.mmb.org.gr/page/default.asp?la=2&id=23> accessed 10 October 2015.
- 6 Manolis Kalomiris' archive has been preserved and maintained by the Manolis Kalomiris Society available at <http://www.kalomiris.gr/> accessed 10 October 2015.

During the beginning of the 2000s a series of digitisation projects were initiated across the board by many cultural establishments: university and state libraries, private and public archives, private specialised libraries, research centres⁷. The outcomes of these digitation projects were uploaded on the web, shared through Europeana on a later stage and quite a few of these had the opportunity to be used and re-used in various research and educational projects. Of course, mishaps were not avoided: digitization committees lacked coordination, therefore there were many incidents where the same material was multiply digitized by different bodies. Also, in some cases procedures were carried out in a haste or without any prior preparation and this had some poor results such as disfunctional material going online, digitized material was uploaded with no english translation of their metadata and others. Moreover, in some cases, the cataloguing and material-describing schemes that were used were not actually in accordance with what was internationally adopted and all these had to change. On the good side though, and besides the fact that some valuable time was lost, most of the material that is now up on the web is noteworthy and fully functional to use after the amendments that have been carried out by providers. In any case, and putting aside the difficulties encountered, the fact is that currently some of the treasures of Greek cultural and artistic life found their way and became available to the public and, most importantly, to researchers in Greece and abroad.

In the field of music now, archival material that became available could be of major importance. Resources such as the music archive of Mikis Theodorakis, a musician and composer who enjoys world fame, became visible and traceable⁸. These procedures revealed more than just music resources though. It was time that some

7 For more information, see Anonymous writer. "Ψηφιακοί πολιτιστικοί θησαυροί στο Διαδίκτυο" [Digitized cultural treasures on the Internet]. *Kainotomia*, issue 7, (March-April 2009): 18-23. <http://www.ekt.gr/content/img/product/77479/18-23.pdf> accessed at 25 October 2015

scientific deduction could be carried forward, and, in many cases from unexpected resources. For instance, to our surprise we found that there were salon music pieces in 19th century literary magazines or a vast amount of music criticisms in newspapers of the 19th and 20th century (Xepapadakou and Charkiolakis 2014). The main point is that all the material available drew a more clear picture and provided valuable information about musical life in Greece from the establishment of a significant art music scene in the beginning of the 19th century.

One should not escape to add to the above, the various digitization projects that were taking place all over the world. Similar material was been made available in parallel. From here onward I will go into a more case-study approach to the phenomenon and I will present some cases in which I happened to be involved, hoping that these will help us understand the potential that was being borne.

It was the year 2009 when Michael Burden, a professor from Oxford University, contacted me asking if I could help him identify the composer and the work in a score in Greek that he had in his possession. In the meanwhile, he had already donated the score to the Barr-Smith Library at the University of Adelaide in Australia. He was kind enough to send me a few pages that he had photocopied before sending the score to Adelaide. After these arrived through regular mail I was surprised to see that it was a spartito score of a Spyridon Samaras operetta, titled *Η πριγκίπισσα της Σασσώνος* [The Princess of Sasson], probably the penultimate work of the composer. The thing

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- 8 As it is mentioned on the database page: "On December 15, 1997, Mikis Theodorakis donated his personal archive to the Music Library of Greece "Lilian Voudouri". The archive, impressive in size and thematic variety, includes manuscript scores and texts, press cuttings, posters, programmes, audio-visual material, dissertations – studies, photographs, medals and various publications. His manuscripts, both scores and texts, as well as part of the music programmes collection are now available online." <http://digma.mmb.org.gr/Collection.aspx?cid=1> accessed on 28 October 2015.

got more interesting for me when I realised that in the Rares Collection of the Music Library of Greece, where I was working at the moment, we possessed a set of orchestral parts of the work. Unfortunately, no full score there. Furthermore, in the archive of the National Opera of Greece I managed to find the full score of the operetta, a setting though that was not the original but a recreation of it with a few added numbers, that reflected the time and place when the work was performed again (Charkiolakis 2011). After some clarifying correspondence with Michael Burden, he gave me all the details of Cheryl Hoskin, who was at that time working at the Rares Department of Barr-Smith Library. I contacted her and asked for a copy of the spartito for our collection in the Music Library of Greece, explaining the situation. She was willing to help and she actually decided to do something even more useful than donating a copy of something that was already in the public domain. The library staff digitized the spartito in two days and added all the metadata available.⁹ After the premiere of the work in the 21st of January 1915 and the consecutive performances of it in the 1950s with a recreated score and parts, we had the chance to have access to the original material of the work, even in a spartito form. With the original set of parts from the premiere of the work and the available material deriving from the spartito, we have a more clear lead towards the recreation of the original score.

Furthermore, at the digital repositories currently available in Greece one can find samples of rarely known or even totally unknown works by composers who later on became famous. Let me refer to a characteristic example that represents this.

In the manuscripts collection of the Music Library of Greece, among many other things, one can trace a literary unknown work by

9 One can access the score at <https://digital.library.adelaide.edu.au/dspace/handle/2440/56535> accessed on 25 October 2015.

Iannis Xenakis, accessible till recently only to those who were able to visit the library's premises. The work, although does not appear yet at the Library's Catalogue but only on the Acquisitions Catalogue, was traceable. After all, cataloguing of the Rares and Manuscripts Department needs to proceed with care and it is inevitably slow. However, when the second phase of a digitization project went forward, this piece, among others, was chosen to be digitized in the "Greek Composers Manuscripts" section¹⁰. There one finds the piece titled *Πάτημα Γοργό και Αυστηρά Ισόχρονο* [Quick Tread and Strictly Timely/Isochronous] that was composed by Iannis Xenakis, in his youth, and more specifically in June 1952, as the composer marks on the right hand corner of the score¹¹. This is a one-page piano work that may contain elements that have been used in other pieces, for instance the unpublished *Seven Piano pieces without title* from 1949/50 or the *Suite* for piano from 1950 that also remains unpublished. The interesting fact though remains that a piece under that specific title does not exist in any catalogue of Xenakis' works. Although it is a common practice that youth works of composers are not included in their official catalogues, most of the times as non-representative of their later work, there is some mention about them. This is not the case for this piece, since I have not managed to find a reference to it.

The Athens Conservatoire was being established in Athens as early as 1871, making it one of the oldest institutions of the sort in Europe. During the 1890s and for a substantial amount of time within the 20th century there was a constant flow of foreign teachers who were hired for their teaching qualities and due to the fact that they were considered as performers of high calibre. By doing so, the Board of Directors of the Athens Conservatoire believed that they would add value to the Institution. Also, one cannot neglect the fact that there

10 See <http://digma.mmb.org.gr/Collection.aspx?cid=4> accessed on 25 October 2015.

11 For the piece see <http://digma.mmb.org.gr/Item.aspx?kkt=ARIBAS000000041>

were no Greek teachers who had the capacity of knowledge in order to teach at this level, especially during the first years of the Conservatoire's function. One of the foreign teachers who was recruited during the last year of the 19th century was Franck Choisy a, swiss-born but from Belgian decent, violinist, composer and conductor who would end up living for a substantial span of his lifetime in Athens and finally dying there. Choisy was born in 1872 and arrived in Athens in 1899 to take the position of violin teacher at the Athens Conservatory. Later on he became the conductor of the Athens Conservatoire Symphony Orchestra and stayed at his position till 1907, year that he decided to return to Geneva. He returned to Athens in 1929 or 1930 and died there in 1966¹². Apparently, Choisy was a gifted musician who became interested with what comprised the folk and ecclesiastic element of Greek music. We observe him being interested for the byzantine melos and traditional folk tunes,¹³ without though being a prototype ethnomusicologist in that sense. He also established an interest on ancient Greek music. We know these from his archival material which is actually split in two parts: one is beign maintained (and has been digitized) in the Music Library of Greece¹⁴ and the other part, mostly non musical but equally interesting, remains at the MIET-ELIA Archive which stands for the Hellenic Literary and Historical Archive and National Bank of Greece Cultural Foundation¹⁵. Although most of the musical part is being kept

12 For Frank Choisy see (Charkiolakis 2012) and also (Lerch-Kalavrytino 2013).

13 For instance, one can revert to a collection of essays that was destined to form a book under the title "Parlons Musique", a project that was not realised as it seems. In any case, quite a few of the typeset pages exist in his archival remains and one can see them here <http://digma.mmb.org.gr/Item.aspx?kkt=CHOISY000000035> and here <http://digma.mmb.org.gr/Item.aspx?kkt=CHOISY000000038> (accessed on 28 October 2015). The first chapters of this book were dedicated to ancient Greece and the music of the period.

14 This is the link to the Frank Choisy Archive at the Digital Greek Music Archive <http://digma.mmb.org.gr/Collection.aspx?cid=5> accessed on 28 October 2015.

15 This is the link to the information about the Frank Choisy Archive that is kept at the MIET-ELIA (Hellenic Literary and Historical Archive) <http://www.elia.org.gr/entry.fds?entryid=9&pageid=103&pagecode=05.06&tablepageid=24&pageno=1&direction>

at the music library, one of the most interesting artefacts, an autobiography of his, is being kept at the counterpart MIET-ELIA Archive and it is currently on the process to be digitized (hopefully, translated as well since it gives interesting information of the Athenian musical life). Focusing on the digital part of the archive to which one has access to, we come across his rather small but significant compositional output, and more specifically to a symphonic work titled *Exile du Patre, Suite Grecque pour petite orchestre*, a work that was probably composed around the end of 1902 or the beginning of 1903 and got performed on the 7/20 March 1903. In this work, Choisy uses a tune deriving from the Greek dance "Tsamikos" at the second movement. In a sense, the "Tsamikos" that the composer is using plays a significant role of a dance part resembling for this movement only with the baroque suite trends. Moreover, he inserts the main theme of the Greek national anthem in the third and last movement of the work, which is titled "Le Soir". In order to make it more visible, he actually records it on the score. All these do not say much if you see them separate from Greek music historiography. However, all takes a different spin when one realises that this work was performed almost a year before the *First Hellenic Suite* by Dionysios Lavrangas (1904, conducted by Choisy), and four years before *The Feast* (1907) by Georgios Labelet. These two works that I have just mentioned have been considered the first works of the Greek nationalistic movement that will rise in the years to come and will prevail under the dominating figure of Manolis Kalomiris. But, it seems that it was actually a Swiss who was the first that introduced audiences to this national sound, a fact that would have continued to be neglected if the archive was not digitized and widely disseminated.

[=asc&orderby=&langid=2&showresults=true&letter=&onoma_titlos=choisy&apo=&mexri=&tupoi_arxeioid33=&uemata_katalocoid40](#)= accessed on 28 October 2015. Also, one can refer to Stamatogiannaki (2012).

As I mentioned earlier in this article, due to the digitization projects that have been carried forward, one is now able to find interesting material deriving from other, not necessarily musical, sources as well. As it has been revealed, and this is something that musicologists were suspecting that existed but resources were scarce and difficult to accumulate and therefore not much research has been conducted, Greek literary magazines and periodical publications of the late 19th century contain certain musical sections with salon music pieces solely by Greek composers (Charkiolakis 2011). Although, salon music as a genre is something commonly underestimated in the Greek musical historiography, it seems that there was actually a market and an audience that would be entertained by them. Publications of the sort would include one-page items inserted at the literary periodicals of the time. These were pieces that would appear later on as sheet music (mostly 4-page pieces) that would be sold separately at the music shops that were established. It was only when I was engaged in a research project through the University of Athens from 2013 onwards¹⁶, which had in the centre of focus those literary publications that have been widely digitized but not thoroughly researched for their musical aspects. Credits mainly go to Dr. Avra Xepapadaku for this revelation since she was the first to pinpoint this issue and discussed it with me within the scope of this research projects. Furthermore, what we have been trying to do since then was to signify the impact salon music had in Greek musical matters and the actual fact this genre was something alive in the Greek music scene. Currently, we are working towards a book on the subject that will probably appear later in 2016.

During the first twenty or so years of active and institutionalized musicological research revolving around Greece and

16 For this project see <http://excellence.minedu.gov.gr/thales/en/thalesprojects/375892> accessed 28 October 2015.

Greek music we have been struggling to resolve issues that had to do with national identity, hellenicity, issues that have to do with positioning our art-music world and epoch within the framework of the modern hellenic state that has been established, enlarged, diminished and, finally, stabilised in the 20th century. During the 1990s and beginning of 2000s most of our conferences were held in Greek, had mostly a national character and articles existed mainly in the native language with only just a few exceptions.

By the mid 2000s though the approaches seemed to be changing. Maybe because we were past our "childhood illnesses" that one inevitably has to go through, partly also because younger generations with more up to date interests were taking the lead, the fact is that Greek musicology has been going forward. Hand in hand with this though goes the fact that from then onwards we had far more many resources to rely on. Digital resources that were developed and await to be used accordingly.

Earlier on I gave a few hands-on examples of what is available and how all these new resources could potentially widen our understandings in our field. But the most important factor I think comes from the realization that all these are part of a wider perspective, the fact that what was happening in the Greek musical world of that time, is in fact a part -even a small one- of a wider phenomenon that one can identify as a European musical framework. A periphery which still bears resemblance to its European counterparts, a periphery where music moves, although sometimes in a more staggered way, towards Europe. By acknowledging the above, the Greek musicological perspectives changed, partly because of what I explained before (young scientists, different methods and modern perspectives) but also due to the wider availability of archival material. We managed to shift, and I hope that we will continue doing so, from

an introvert to an extrovert musicology with our understanding of things shifting towards new paths, widening our horizons. By releasing new and under-researched or, even more importantly, never-researched material that one could access from a distance gave researchers the opportunity to dig and harvest information that would have taken far longer to unearth, if it was ever to be unearthed. Continuing in this path is obviously the only way forward, and I am sure that more fragile and undocumented myths that have been taken for granite will be replaced, reformed and reshaped in order to give a clear and accurate picture. Furthermore, new and exciting facts could be revealed, new paths could be drawn in order for us, musicologists to be more accurate when we discuss a two centuries old musical scene, that encapsulates a variety of musical styles and genres, which also bears a significance not only of national but of international value, that awaits to be explored even further.

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SOUND, REPRODUCTION, MYSTICISM: THOMAS EDISON AND THE MYTHOLOGY OF THE PHONOGRAPH

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Abstract: This paper examines texts written about the phonograph from the time of its invention in 1877 up to about 1890, a period when its existence was common knowledge but before it became a fixture in public life. During these years of public scarcity, many authors, in particular Thomas Edison speculated on various utopian transformations that the phonograph might effect on society. These texts were often presented as scientific discourse, but at the same time included frequent references to classical mythology and mysticism. I argue that these references to myth and mysticism are more than superficial rhetorical flourishes, and that at a deep level these texts function as mythopoeia, a kind of fabricated mythology with a clear and consistent thematic structure. I describe this structure and show how authors deployed it to support a utopian cultural agenda. Through another body of contemporaneous texts I also identify complimentary patterns of cultural anxiety that, while seemingly written in opposition to the “utopian” texts, rely on the same engagement with myth and mysticism and incorporate many of the same themes.

Keywords: Phonograph, Edison, Myth, Sound, Technology.

SOM, REPRODUÇÃO, MISTICISMO: THOMAS EDISON E A MITOLOGIA DO FONÓGRAFO

Resumo: Este artigo examina textos sobre o fonógrafo desde o momento de sua invenção, em 1877, até aproximadamente 1890, período no qual a sua existência era amplamente conhecida mas antes de tornar-se um acessório na vida pública. Durante estes anos de escassez pública, vários autores e em particular Thomas Edison, especularam sobre as várias transformações utópicas que o fonógrafo poderia ter sobre a sociedade. Estes textos foram frequentemente apresentados como discurso científico, mas, ao mesmo tempo, incluíam referências frequentes à mitologia clássica e ao misticismo. Discuto que estas referências ao mito e ao misticismo são mais do que floreios retóricos superficiais, e que, em um nível mais profundo, estes textos funcionam como mitopoeses, um tipo de mitologia fabricada com uma estrutura temática clara e consistente. Descrevo esta estrutura e demonstro como autores a desenvolveram para apoiar uma agenda cultural utópica. Por meio de outro corpo de textos contemporâneos também identifico padrões complementares de ansiedade cultural os quais, enquanto aparentemente escritos em oposição aos textos “utópicos,” se apoiam sobre o mesmo engajamento com o mito e misticismo e incorporam muitos dos mesmos temas.

Palavras-chave: Fonógrafo, Edison, Mito, Som, Tecnologia.

Story as Invention

For a machine that generated unprecedented interest around the time of its invention, the phonograph initially didn't make a lot of noise. Although news that Edison had successfully recorded sound began to circulate during the summer of 1877, most people would wait a very long time to hear it. For many months the only way to witness the phonographic miracle outside Menlo Park was by attending private demonstrations limited to a select group of scientists, journalists, politicians, businessmen, and other people of influence. Limited public exhibitions began gradually during the first

half of 1878 under the auspices of the newly formed Edison Speaking Phonograph Company, but these were tightly controlled events and limited by the fact that relatively few exhibition instruments were built. After initial interest in the new invention died down, it languished for another decade before Edison announced his “perfected phonograph” in 1888. Still more time passed before Edison’s phonograph and other methods of sound reproduction became public fixtures through “concerts” and the proliferation of coin-slot phonographs during the 1890s (Musser 1990, 56-62). In the intervening years phonographic devices were, to a large extent, publicly inaudible.

The sonic vacuum surrounding the “talking machine” quickly filled with other voices. Even before its first private demonstration, a slew of speculative articles, letters, and essays penned by journalists and curious members of the public appeared, most of them responding to technical drawings or second hand accounts of exhibitions. From the very beginning, it seems, people told stories about the phonograph. As the New York Times put it:

Indeed, the imaginative and the inventive have entered so much even into descriptions of the instrument and accounts of its experimental working, that some matter-of-fact people have been disposed to question its actual existence, and to regard it as a myth concocted by enterprising reporters. (“Practical Uses of the Phonograph,” April 28, 1878)

These words could easily have been written about another of Edison's mythical inventions, one that also famously failed to materialize many years later. In 1920 during an otherwise routine interview the inventor confided that he was constructing an “apparatus” that might intercept communications from the afterlife, or what he described more strictly as the personality-residues of the dead (Forbes 1920). Newspapers dismissively dubbed it the “spirit

phone" ("French Fancy Busy on Spirit Machine" 1920) and following a flurry of publicity it was largely forgotten. No plans were ever found, and the whole episode is generally regarded as a quirky (and perhaps embarrassing¹) footnote to the story of a great American inventor ("The Psychophone" 2009).

But whether or not Edison seriously considered building it, the story of the spirit phone can tell us much about the role of public discourse and scientific texts in shaping the social meaning of real inventions. The story is a rare example of discourse as technology—a narrative without a machine—one that shares many resonances with the various stories told about the phonograph. Besides the fact that both were described as mythic objects, the spirit phone and the phonograph had much in common. The spirit phone was apparently something like a hyper-sensitive sound recording device (Desmond 1922; Armagnac 1927; Sconce 2000, 82), and the idea of communion with the dead was also popular in early writings about the phonograph². Skepticism and disbelief in the phonograph were expressed just as they were for the "apparatus," and both machines were surrounded by controversy and remained out of the public eye and ear following disclosure of their existence (in the case of the spirit phone, permanently).

In this paper I argue that like the spirit phone, the phonograph was indeed mythic; or to put it another way, its social context—how it came to be understood, how it was used, even what it was and how it functioned—was to a large degree created by the kinds of stories that were told about it. By examining the form that these stories took, who

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- 1 For the record, there is some evidence that Edison was interested in phenomena, such as telepathy, that might be considered pseudoscience today (Conot 1979, 428).
 - 2 For example *Scientific American* wrote: "We have already pointed out the startling possibility of the voices of the dead being reheard through this device..." ("The Talking Phonograph" 1877:300).

told them and how, a complex picture emerges of the changing relationships between science, myth, and the status of inventors during the late 19th century.

The Myth of the Spirit Phone

James Lastra has shown that many seemingly far-fetched scenarios involving the phonograph or other inventions entertained in “vernacular discussion” of the late 19th century were part of a public process of imagining the social context and reception of the new devices (Lastra 2000, 16-21). On the other hand, myth, to use Bernard Dupriez’s definition, is a “symbolic narrative in which characters, speeches, and action aim to establish a balance in spiritual and social values in which there is room for everyone and which offers an interpretation of human existence” (Dupriez and Halsall 1991, 292). I propose that many texts written about Edison’s phonograph incorporate a bit of both; they are certainly attempts to initiate or manage cultural change, but beyond being merely persuasive, at a deep level they function more like traditional mythology.

The story of the “spirit phone” will help to illustrate my point. In the interview mentioned above as well as many others, Edison framed its announcement with a complex “theory of life units,” in which he postulated the immortal existence of “swarms of intelligences,” microscopic entities that composed all living matter. In the case of humans, these minute entities carried a trace of the personality of the complete individual. If these “intelligences” were able to survive the death of an individual human, Edison proposed that it might be possible to intercept communications from them. Given the fact that he seems to have had no intention of ever constructing such a machine, and considering the amount of trouble his apparently false disclosure caused him, why did Edison construct such an elaborate

story, one he repeated insistently in a series of interviews in the early 1920s (Forbes 1920, Rothman 1921, Desmond 1922) and never publicly retracted³? Considered as part of scientific discourse, the incident was problematic for Edison; but read as myth, the story of the spirit phone and the theory of life units begin to make sense.

Anthropologists and literary theorists have proposed many possible explanations of the social function of mythology. To summarize some of the most common ideas: First, through metaphor, allegory, or symbolism, mythologies negotiate changes in societal customs and practices (Doty 2004, 3); Second, myths define nature and articulate humanity's relationship to it (Andrews 2000, xi); Third, mythologies offer a worldview, a logical and comprehensive structure for understanding the known universe that can accommodate and explain confusing, frightening, or painful experiences, thus mollifying anxiety (Stambovsky 1996, 68; R. A. Segal 1999, 45; Hatina 2008, 18); Finally, myths offer the hopeful possibility of a better (although usually remote) form of existence, for example the religious idea of heaven (Coupe 2009, 9).

Edison's theory satisfies all of these conditions to an extent. It attempts to incorporate scientific, rational thought into existing human belief systems; defines a natural process (life and death), and explains how humans fit into it; and offers a comprehensive theory of existence for all living things. Perhaps most importantly, both the theory of life units and the promise of the "apparatus" were in part an

3 Several years later the *New York Times* reported a comment from an anonymous associate claiming that "the whole thing was a hoax" ("Edison Now Admits the Soul May Exist" 1926), although it seems Edison himself never publicly disavowed or retracted his statements about the device. Staff at Menlo Park spent a great deal of time responding to inquiries about the machine from all over the world, but according to Douglas G. Tarr of the Edison National Historical Site, neither the machine nor any plans have ever been found (Martinelli 2004, 36-7).

attempt to make sense of the incomprehensible suffering caused by the First World War, as Edison himself stated:

I was thinking of the war and the cruelty of nature. Billions of human prayers have been sent up, yet without apparent results. Millions have died. Malignant cruelty was apparent. I thought there might be a way of determining whether nature is as cruel as she appeared... Somebody has to explain this problem. Somebody has to start working on it scientifically. (Rothman 1921, 6)

Papering over gaps in his theory that could not be explained by scientific knowledge of the time, Edison improvised a complex hypothesis of the cycle of life and death—to all intents and purposes, a sophisticated reincarnation myth. The theory of life units is part of a much larger body of texts in which authors combine science with *mythopoeia*, fabricated myths or underlying mythic themes that attempt to create a logical framework for dealing with anxieties arising from real or anticipated cultural change.

Primary Texts

Phonograph mythopoeia was constructed in novels, poems, philosophical essays, short stories, correspondence published in newspapers and journals, and interviews (with Edison and others), as well as popular science journals, a type of publication that emerged during the nineteenth century and which by the 1920s numbered more than 10,000 titles globally (Young, 2002). The sudden explosion of these journals meant that hitherto private discussions among professional scientists were now conducted in public for the entertainment of a non-specialist audience. The readership of these magazines could directly contribute to debates and discussions about

new technologies, but more importantly the scientific community, in particular the newly ascendant industrialized sciences of which Edison was a figurehead, had a forum through which to influence public opinion on new inventions or innovations. Beyond writings that immediately concern the phonograph, a body of works described by historian Howard Segal as “technological utopian” literature deserves mention. Technological utopianism was “a mode of thought and activity that vaunts technology as the means of bringing about utopia” (H. P. Segal 2005, 10). Although these texts do not specifically concern the phonograph, Segal’s analysis helps to illuminate many themes shared with phonograph mythopoeia.

All of these texts blended science and myth in novel and entertaining ways, and the boundaries between the two were usually blurred. As Segal shows, “technological utopian” writers all described similar kinds of utopias, whether fiction or non-fiction. All used the same matter-of-fact, rational voice, and presented their ideal societies as entirely plausible, even the most fanciful ones (H. P. Segal 2005, 19-21). Popular science journals, along with mainstream newspapers and periodicals, did much more than publish news and information about scientific discoveries. They also contained a large amount of speculative or outright fantastical material, and became the primary forum for disseminating, discussing, and contributing to the growing body of texts concerning the phonograph.

Phonograph Mythopoeia

Phonograph mythopoeia was based on a powerful literary strategy (shared with many other scientific texts of the same era including the technological utopian literature) whereby content laden with rich symbolism and nature metaphors was narrated in a

detached and ostensibly neutral voice. Many authors displayed a detailed knowledge of classical mythology; frequently invoked themes or figures included the Veil of Isis (“Phonomine, Autophone, and Kosmophone” 1878), the legend of Prometheus (Landon 2002, 42), and the Judeo-Christian creation myth (Morton 2000, 2). In contrast, the preferred narrative type was the “observer,” an impersonal presence who started to appear in scientific texts of the 18th and 19th centuries. Modestly communicating facts to the reader, the observer formed part of a style of writing that Scott Montgomery calls the “scientific voice.” Constructions like the passive voice (“it will be shown,” “as can be seen”) and the universal pronoun “one” constituted a “range of first-order, nonnegotiable grammatical codes [that] also serve as conventions for the blank face of the narrative persona” (Montgomery 1996, 13). With these constructions writers obscured their own voice, a process Montgomery describes as the “literary nullification of the self” (106). This obfuscation of the individual narrator created a powerful sense of authority, allowing writers to present observations or opinions as inherent truths purged of “any overt traces of both a private and a social process”; the reader was presented with “Truth, not a claim for it; the Scientist, not a particular individual; Data, not writing” (13).

As William Stahl shows in “God and the Chip,” the bland rationalism of the scientific voice conceals an ideological process, a deeper structural engagement with myth and mysticism than occasional references to classical mythology in these texts suggest (Stahl 1999, 2). The mysticism in texts written about the phonograph is ignored or passed off as superficial rhetoric, just as stories like Edison’s spirit phone are ignored or forgotten. I agree with Stahl that myth plays a far deeper role in scientific texts of this era. Writers such as William Blake and W. B. Yeats also incorporated fabricated mythologies into works of intricate fiction; conversely, in scientific mythopoeia, the underlying mythology is hidden under the neutrality

of the “observer,” with literal references to myth and mysticism disguised as little more than superficial rhetorical flourishes. On closer examination of these scientific texts, however, these coherent and more substantial themes do emerge. Seldom expressed as complete “stories” like the theory of life units or traditional myths, they appear fragmented across multiple sources and texts. Some themes recall existing mythologies, while others are uniquely modern, specifically geared to the idea of technological progress.

Thomas Edison: Alchemist, Faber, Mythologist

Myths require godlike characters, “beings who embody ... forces of nature, aspects of genius or of the human condition” (Dupriez and Halsall 1991, 293), and the political and social situation in post-civil war America helped to provide them. As W. Bernard Carlson remarks, during the 1870s, under the influence of a combination of factors including the aftermath of civil war, the strains of adjusting to the occupation of new territories, a shaky political situation, and general strikes and labor unrest, the American public “may have shifted their hopes for progress from social and political institutions to invention and science”. Around this time, the invention of the phonograph seemed to stoke confidence in the ability of science to overcome social upheaval. As one commentator remarked: “The invention has a moral side, a stirring optimistic inspiration. ‘If this can be done,’ we ask, ‘what is there that cannot be?’” (Carlson 2001, 44).

As Theresa M. Collins and Lisa Gitelman note, “In the context of such strife, the figures of inventors like Edison and Bell sounded a reassuring note...Their dazzling achievements suggested a better, shared future, guaranteed by technological change, which was

dressed up and saluted as ‘progress,’ a hopeful abstraction to answer any doubts about the future” (Collins 2002, 11-12). Anything seemed possible, and engineers were invested with divine powers: “Americans... regarded engineers as demigods who performed feats previously deemed impossible... One engineer, when asked about his work draining the Florida Everglades, said, ‘God didn’t finish his work down here so we are doing it’” (Miller 2012, 144). They enjoyed unprecedented celebrity and their opinions on a wide range of topics were frequently solicited, their words “taken as gospel” despite being far removed from their own fields of expertise (H. P. Segal 2005, 172). Thus inventors and engineers became a source of inspiration for a society in the midst of a painful transition, and were one of the principal forces driving America towards the territorial, military, economic, and social aspirations expressed in the popular concept of “manifest destiny.”⁴

A “master of public relations” who in his youth ran a successful newspaper business, Edison skillfully engineered his public persona, presenting himself as a self-educated hero who pushed the boundaries of science but still embraced old-world values (Moran 2003, xviii). Edison followed stories of himself and his inventions closely, and read newspapers for several hours every day (Baldwin 2001, 287). The phonograph marked an important shift in Edison’s public status, a kind of apotheosis from famous and respected inventor to the “Wizard of Menlo Park.” He began to resemble certain archetypal mythic characters like the alchemist or *homo faber*, a character in metallurgic societies who is granted divinity after manufacturing tools or weapons for the gods. For historian of religion Mircea Eliade, the apotheosis of the *faber* or divine smith “presages his

4 In 1870 the United States became the world’s biggest economy, and achieved the highest per capita income by 1900 (Bodvarsson and van den Berg 2009, 243). This went along with territorial and military expansion in the years leading up to Spanish American War (Tucker 2009, 339; Healy 1976, 43). For further discussion see David S Heidler & Jeanne T Heidler *Manifest Destiny* (2003).

supremacy in the industrial ages to come” (Eliade 1978, 101). Neil Baldwin writes that “no article on Edison is constitutional without an allusion to the theft of fire from heaven” (Baldwin 2001, 398), and summarizes some of the many mythic references from eulogies written for the inventor following his death: “One of our Immortals”; “Conqueror of the Unknown”; “Foremost Among Creators”; “By his work we know him”; “If we had a mythology, Mr. Edison would be placed in that gallery of gods which includes Prometheus”; “Prospero is dead” (408-409).

An Invention without a Story

It is often forgotten that the phonograph was only ever half-finished. The first half, capturing and storing sounds, was supposed to be completed with another device that would transcribe those sounds into written language. After the problem of speech transcription proved more difficult than anticipated, Edison satisfied himself with a device that recorded and played back sound (Morton 2000, 1-3), so the phonograph entered the public sphere as an incomplete machine without a clear function—an invention in need of a story. A public that had been expecting something more like a modern speech-to-text application now had to be convinced of the utility and relevance of an essentially different device.

Edison initiated this process by penning two essays, “The Phonograph and Its Future” and “The Perfected Phonograph,” which responded directly to public speculation (Morton, 2000, 3, Lastra 2000, 17). He followed their dissemination carefully by cutting out copies from various publications and pasting them in scrapbooks⁵.

5 The scrapbooks can be viewed through the digital archive of the Thomas Edison Papers, for example see the *Miscellaneous Scrapbook Series 1876-1878* (The Thomas

“The Phonograph and Its Future” became one of the most widely read and syndicated documents ever written by a scientist or inventor (Miller 2012, 144).

Edison’s essays about the phonograph are an entertaining mixture of science and colorful rhetoric, especially when compared to his rather prosaic efforts on the topic of the (arguably much more useful) incandescent light, published during the same decade (Edison 1880, Edison 1889). The first essay proposes little in the way of new information, technical or otherwise; Edison had already described most of the possible uses for the phonograph in interviews and other articles published well before May 1878⁶. Faced with the problem of merely restating the phonograph’s mechanical principles, Edison set a reverential tone by presenting his technical description as a series of rhetorical question and answer statements that resemble Christian catechism. Although promising to focus on actualities, the remainder of the essay is exclusively devoted to predicting what the phonograph would enable society to accomplish.

Most importantly, Edison cleverly turned the phonograph’s lack of utility to advantage by stating that it was not a machine in the usual sense but rather a mechanical realization of a “universal principle” with almost limitless applications. Freed from the social specificity of the unrealized telephonic transcription device, Edison re-imagined the phonograph as a kind of mythic object that would soon appear everywhere and transform daily life. Ten years later, with his second essay Edison announced the arrival of the “perfected phonograph;” but it contains only a single paragraph describing improvements upon the earlier, less-than-perfect phonograph⁷. Instead, Edison amplified his concept of the phonographic principle to

Edison Papers 2010).

6 Precise descriptions of the mechanics of the phonograph, as well as all of Edison’s proposed social applications, are found in three interviews with *Scientific American* (“A Wonderful Invention” 1877, “The Talking Phonograph” 1877, “The Speaking Phonograph” 1878).

link it to everything from the most contemporary topics in science, philosophy, mathematics, music, and ancient history (Edison 1888, 641-2).

Primacy, Surrogacy, Transcendence

Three central themes stand out in Edison's nascent phonograph mythopoeia: First, the essay suggests primeval origins for the phonograph; Second, the title of the essay suggests an entity with its own destiny, a kind of technological anthropomorphism oddly similar to the Romantic personifications of nature that John Ruskin had criticized as "pathetic fallacy" several decades earlier (Rosenberg 2000, 61-72); Third, the machine offered the means for society to transcend various imperfections and achieve a utopian state. These themes, which for convenience I will label *primacy*, *surrogacy*, and *transcendence*, appear repeatedly in a large number of texts from various sources⁸.

Historians of myth have argued that assigning primeval origins to myths provides a powerful means of validating cultural phenomena of many kinds (R. A. Segal 1999, 44). Similarly, Edison described sound reproduction as a "universal principle," something so fundamental and simple that it he came across it "almost accidentally;" recording was like an ancient elemental process that had finally been unlocked (Edison 1888, 642). Several other ideas supported the theme of phonographic primacy: the inherent simplicity of the phonographic principle, the notion of sound as a kind of physical substance, and the

7 The two main improvements were an electric motor and a return to the wax cylinders used in the original experiments instead of tin foil (Edison 1888, 644).

8 My mythic themes of "primacy" and "surrogacy" owe much to James Lastra's tropes of phonographic "inscription" and "simulation" (Lastra 2000, 16-60).

idea of phonography as “sound writing,” an autographic transcription of nature.

The phonographic mechanism was straightforward enough for almost anyone to understand, and journalists seeing the invention for the first time, struck by its mechanical simplicity and lack of electricity, questioned why it had not been invented earlier (cf. “The Speaking Phonograph” 1878). Unlike the telephone, they could describe the mechanical logic of the phonograph to readers without resorting to technical language (cf. “Telephones and Their Use” 1877). This simplicity seemed to support the idea that the phonograph had not been invented but discovered, a mechanical embodiment of a natural phenomenon.

Sound was understood as a natural substance like water or air that could be gathered and stored up for future use, prompting humorous descriptions of sound connoisseurs using the phonograph to “bottle up” speeches or other types of sounds (“The Phonograph” 1877). Sound waves were an audible part of a larger primordial phenomenon described by wave theory, as early phonograph theorist Rudolph Lothar wrote: “Rhythm is the most supreme and sacred law of the universe; the wave phenomenon is the primal and universal phenomenon” (Kittler 1999, 71). Edison emphasized the phonograph’s connection to this “natural” phenomenon, writing that recording sound waves was like “the tide ... recording its flow on a sand beach,” and in recording music and the speeches of “great men,” the phonograph captured the “poetry” of sound (Edison 1888, 645-6). By recording super- and infra-sonic sounds and rendering them in the audible range, the phonograph could also reveal the inner workings of the universe (1888, 642).

The theme of surrogacy comes from the understanding of the phonograph as a “talking machine” linked to earlier forms of speaking automata. In October 1878, more than a year after its invention, a

certain M. Bouillard invited ridicule from his learned colleagues when he contested the existence of the phonograph at a meeting of the Paris Academy of Sciences. Bouillard made the simple point that the phonograph could not possibly “talk,” since talking also implied thinking (“Not a Thinking Machine” 1878). The idea that the sound of the voice could be detached from the act of thinking was evidently a strange one, and the intuitive association of speech with thought informs the theme of surrogacy; as Edison wrote, hearing recorded speech on the phonograph was “just as if the machine itself were speaking.” (1888, 643). Speech was only one aspect of phonographic surrogacy; through a carefully crafted repertoire of quasi-human behaviors, exhibitors of the early phonograph, including Edison himself, presented it as a social entity that sang, joked, told stories, listened, memorized, and pranked hapless skeptics (cf. Feaster 2001, 74, “The Speaking Phonograph” 1878, “The Talking Phonograph” 1877).

Howard Segal identifies what I call the transcendent theme in “technological utopian” texts of the late nineteenth and early twentieth centuries, which emphasize harnessing the power of science to transform society and control nature (H. P. Segal 2005, 24). The utopians did not consider themselves romantic dreamers and insisted that their predictions were valid and inevitable (21). Comparably, phonograph mythopoeia did not promise heaven, or hope for a better but distant future—it insisted that the future had all but arrived, and that the phonograph was about to transform society at the present time. Many texts included prophecies where technology enabled power over nature and a more orderly society. One *New York Times* columnist predicted an “era of the phones” where phonographic devices were “...destined to give us a complete mastery over all the sounds of nature” (“Phones of the Future” 1878). Phonographic technologies would unlock the secrets of the universe by recording previously inaudible sounds like the movements of the

smallest insects, the motion of atoms, the sounds of environmental processes such as the growing of grass, or mythical sounds like the music of the spheres. Just as angels “[mediated] between the realm of the sacred and the profane realm of time and space” (Doniger 1999, 55), the Gramophone Company logo’s angelic scribe suggested that the phonograph would too. Sound would also become a means of social control, performing somewhat less joyous functions like noise management, punishment, and torture (“Phones of the Future” 1878). In a similar vein, technological utopian authors “assumed that technology would solve other, more recent and more psychological problems as well: nervousness, rudeness, aggression, crowding, and social disorder, in particular...” (H. P. Segal 2005, 21).

Several ideas supported the theme of transcendence in phonograph mythopoeia, which I label immortality, universality, and faithfulness. Phonographic immortality was boldly announced in the very first description of the phonograph in a letter to *Scientific American* by Elridge Johnson: “Speech has become immortal” (“A Wonderful Invention” 1877). For Johnson, preserving the voice after death and enabling the living to hear it granted a kind of immortality to the speaker. Immortality became one of the most potent phonographic myths, and for generations of listeners “Phonographic devices offered not an encounter with a machine, but a kind of spiritual communion” (Wurtzler 2009, 124). Advertisements for various gramophones and phonographs often featured ghostly performers or singers standing next to them (Schwartzman 1993, 65).

Universality was a way of presenting the phonograph as a universal civilizing force. Phonographic demonstrations made use of multiple dialects or languages, as well as musical numbers (Feaster 2001, 82), and in its attempt to record and reproduce equally well all of these different utterances the phonograph expressed the familiar democratic hope of technology transcending inequality and unifying

people across social and national boundaries (Burnett, Senker and Walker 2009, 15). Sound recordings were also touted as potential universal written languages; from the first articles about the phonograph up until the work of Theodor Adorno, various critics claimed that with practice it would be possible to read the grooves inscribed in the record⁹.

Histories of the phonograph or sound recording usually understand Edison's term "faithfulness" to mean accuracy or intelligibility in recordings, something like a precursor of the concept of "fidelity" that emerged after the 1920s (Guberman 2011, 431). But "faithfulness" was a rich term with a variety of meanings, and accuracy and intelligibility were often subordinate to other connotations such as truthfulness or piety. Edison suggested that the phonograph could be used for surveillance in business, romance, legal proceedings, or to expose political scandals and financial scams ("The Speaking Phonograph" 1878). Faithfulness was the prevention of deceit, and the phonograph a moral touchstone.

Even in silence, the phonograph was admired for its "spirit of modesty" and the "example it sets many garrulous and wearisome individuals" ("The Phonograph" 1878, 249). Edison's ideas about morality and dislike of frivolous social discourse informed his approach to sound and communications technologies. For him, technical mediation provided an opportunity to improve social communication beyond merely facilitating it. He described his deafness as a blessing that filtered out undesirable noise or conversation, his preferred mode of communication the simple

9 *Scientific American* wrote optimistically that "there is no doubt that by practice, and the aid of a magnifier, it would be possible to read phonetically Mr. Edison's record of dots and dashes..." ("The Talking Phonograph", 300). Theodor Adorno also hoped that phonograph records could be a kind of universal writing (Adorno 2002, 279-280), while James Lastra links ideas like these to Alexander Melville Bell's "visible speech" project (2000, 30-31).

ticking of the telegraph (Runes 1968 [1948], 48), or the tapping of Morse code (Runes 1968 [1948], 54-55). With the help of the phonograph, he promised, "We shall now for the first time know what conversation really is..." (Edison 1888, 648-9).

These three themes and complexes of sub-themes coalesced over time into a powerful mythology that supported a utopian vision of a society transformed by the phonograph. But not everyone was ready to accept this vision, and for many the promises of Edison and the other utopians were a source of great anxiety (cf. "An Electrical Outrage" 1877, "Miseries of the Phonograph" 1878). Interestingly, these anxieties often ran parallel to the utopian myths, also exploring themes of nature, immortality, faithfulness, and surrogacy.

Anxious Reactions to Phonographic Utopia

Many critics argued that, ironically, the phonograph's "faithfulness" would destroy society by revealing human *infidelities*. In Edison's utopia there would be no escape from the machine's prying ears, and it would irreparably damage trust and confidence in social relations ("Miseries of the Phonograph" 1878, 249, "The Aerophone" 1878). As for phonographic immortality, Ivan Kreilkamp notes that hearing the voices of the dead was for many less transcendent than profoundly disturbing (Kreilkamp 2005, 189).

Perceptual inadequacy is a common theme in nineteenth century discourses of media technologies, where technical processes like photography and sound reproduction were seen to outstrip human physiology. As James Lastra notes: "Time and again, representational technologies are described as 'more perfect' than human senses, able to 'make up for' previously unnoticed 'deficiencies'" (Lastra 2000, 23). Edison maintained that the

phonograph corrected pronunciation in the recorded voice by adjusting for “mutilations” caused by “imperfection of mouth and lip formation” (Edison 1878, 528).

The idea that the body could be dismantled and interchanged in part or whole with machines was as present in the public imagination in the 1870-80s as it is today. For example, it would have been common knowledge to readers of popular journals that Bell’s telephone used a real human ear as a prototypical microphone. In an article about the phonograph, *Scientific American* reported the “preparation of the human ear made by Dr. Clarence J. Blake, of Boston, for Professor Bell, the inventor of the telephone. This was simply the ear from an actual subject, suitably mounted and having attached to its drum a straw, which made traces on a blackened rotating cylinder” (“The Talking Phonograph” 1877). But when incorporated into the telephone or the phonograph, the eardrum could receive and transmit. This meant that the phonograph could speak as well as listen, and had “got ahead of the ... human body” (“The Phonograph” 1878). It is tempting to draw a link between these anxieties and texts where authors described technology violently breaking the body apart, for example Rilke’s grisly image of the phonograph needle tracing the coronal suture in “Primal Sound” (Kittler 1999, 40-41), or Wolfgang Scherer’s comment on the role of anatomy in early sound studies: “Thus the real answered from dismembered bodies” (Kittler 1999, 74).

Phonographic anxieties moved quickly beyond the physiological. In his 1880 essay *Memory and Phonograph*, Jean-Marie Guyau argued that the phonograph was the latest and most perfect in a series of technological models for human memory (Kittler 1999, 30). Compared to the brain, the phonograph lacked only one thing: the ability to recognize its own memories, a capacity for conscious

thought. It could not experience wonder or surprise at its memories, could not tell its own voice from that of another, Guyau explained—thus its memory was purely mechanical, the physical storage of vibrations. The phonograph lacked the two things that enabled the human brain to interpret and respond emotionally to its memories: a mind and a soul. But Guyau’s sentiment, repeated somewhat obsessively throughout the essay, seems like an anxious reassurance. The idea of remembering without thinking was probably just as difficult to grasp as the idea of a talking machine that could not think, as M. Bouillard of the Paris Academy of Sciences had argued two years earlier to perhaps unfair ridicule.

A contemporary of Guyau, the French symbolist author Villiers de l’Isle-Adam, made the logical mythic jump that if the phonograph can have memories, and if it can talk and listen, then with a little help from science it could surely think and feel too. In his 1886 novel *L’Ève Future*, it is no surprise that Villiers chose the grand alchemist of modern science, Thomas A. Edison, as the protagonist who invents what might be the first android in literature. Hadaly, the fictional Edison’s remarkable creation, not only has a mind and a soul—which incidentally are contained in two miniature phonographs installed in the android’s torso—but Edison had managed to perfect the soul as well as the body and the mind (Willis 2006, 183), and offers Hadaly to the character of Lord Ewald as a perfect romantic companion¹⁰.

One by one the things that were held to be essentially human—the body, perception, memory, self-awareness, and finally the soul—the phonograph first imitated, then superseded. Like myths,

10 Villiers may have based his physical description of Hadaly on Edison’s all-female phonographic dolls, which he manufactured from as early as 1878 (Herlocher 2005, 72). His disturbing tale of Edison “fixing” a flawed human being recalls a passage of equally unsettling misogyny in Edison’s diaries, where he mentally creates a perfect composite woman “à la Galton” (presumably Francis Galton, the founder of eugenics) by substituting his fiancée Mina’s less perfect features for those of two other female acquaintances (Runes, 1968 [1948], 3).

anxieties have their own logic: when a perfect soul can be synthesized with a pair of phonograph players, then the very idea of the soul is threatened. Or, as the real Edison reasoned, if the brain is like a phonograph, then both are “Machinery, pure and simple” (Marshall 1910). Without the existence of a soul, humans are left only with physiological inadequacy, requiring the help of science to achieve even a compromised state of existence: In the technological utopian texts, Segal notes that “...the inhabitants of utopia remain flawed by nature—save where, as in some utopian fiction, they are perfected through genetic engineering (H. P. Segal 2005, 11).

Myth, Anxiety, and Belief

Fidelity turns to betrayal, technology overtakes humanity, immortality extinguishes the soul. Dystopian nightmares stalk the utopic aspirations of late 19th century science. Rather than relieve anxiety, phonograph mythopoeia seems to have provoked it—but how? Claude Lévi-Strauss suggested that myths attempt to create a logical model that can overcome contradictions in order to alleviate anxiety (Fiske 1990, 122). But phonograph mythopoeia rested on a contradiction, because science and myth of the time operated through radically different and conflicting modes of belief. Scientists aspired to describe the actual, the real, the rationally plausible, whereas myths are works of powerful imagination (de Lautour 2012).

The emerging scientific worldview in the 19th century encouraged doubt and the pursuit of unequivocal proof of theories or hypotheses (Knight and Eddy 2005, 154). In the practical world, belief in a principle of science was often tied to immediate experience. As David Knight writes: “Beliefs are not abstract and untestable convictions, but concern how things should be done” (Knight and

Eddy 2005, 10). By comparison, mythic belief is both adaptive and comprehensive. The extent to which certain myths are believed, in what senses they are “true,” has been the subject of continuing discussion and revision since the known origins of mythology (Frye and Macpherson 2004, 275). While myths literally contain fantastical claims or narratives, their structure often relates to real issues through obvious use of allegory, metaphor, or symbolism. Or, as M. H. Abrams and Geoffrey Harpham put it, “mythology is a religion which we do not believe” (Abrams and Harpham 2012, 230), meaning that accepting the structure of a myth is perhaps more important than believing the story through which it is expressed. One can believe in the essence of the myth of Prometheus—that interfering with nature can have disastrous consequences—without literally accepting that a living being of that name stole fire from the gods.

Authors writing about Edison’s phonograph appear to have used mythopoeia as a way of compensating for scientific doubt, with myths stepping in to explain the unexplainable. But this mixture of belief systems creates problems, and Edison’s Theory of Life Units is a case in point. The structure of the myth provided a logical (if unlikely) explanation for the existence of the soul, at least enough to offer hope in the idea of life after death. But the mythic “spirit phone” never appeared, and however more “rational” and scientific in its voice, without the ultimate proof that the device could provide, scientific belief in Edison’s theory was impossible. Myths must provide only the hope of a better life “just beyond the present time and place” (Coupe 2009, 9), but if science promises heaven it is obliged to deliver it in the here and now.

Phonograph mythopoeia encountered similar conflicts. While insisting, like the technological utopian authors, that the type of society he presented was completely rational and plausible, Edison’s texts required both scientific belief as an intellectual recognition of

plausibility, but also a much more active and adaptive mode of mythic belief. In the latter part of “The Perfected Phonograph,” Edison painted a colorful picture of a society transformed by the phonograph (Edison 1888, 649). But the various functions that he described—exchanging phonograph cylinders between continents, phonographs attached to telephones as proto-answering machines, phonographic “pay booths” for those who did not own a machine themselves, the ability to record phonograph cylinders while using public transportation (1888, 646-9)—would require significant infrastructural and societal adaptation before they could be realized. More than rational acceptance or intellectual recognition was expected of the citizens of phonographic utopia—belief would require financial as well as emotional investment. Edison both encouraged and tacitly assumed the devotion of the pre-phonographic society, an act of religious faith.

In scientific mythopoeia, both machines and utopias are brought to life through human participation. Lord Ewald is denied ideal love when the android Hadaly perishes in a fire at the end of *L’Eve Future*—but the machine can only “die” because it has been invested with the soul of Edison’s mysterious assistant Sowana.¹¹ And as Howard Segal notes, in technological utopian literature the only link from the existing world to the utopian turns out to be through the supernatural—protagonists arrive in the perfect society “through mystical rather than practical means: dreams, hypnosis, death, prophecy, and time capsules” (H. P. Segal 2005, 22). When science stumbles, myth takes over. In all cases—the never-quite-perfect phonograph, the theory of life units, science fiction stories—scientists can envision utopia, but require our faith to get us there.

11 Mary Hélène Hue discusses the significance of the character of Sowana in “Monstrous Imagination” (1993, 230-1).

Conclusion

Texts written about the phonograph in the latter decades of the 19th century contain a mythic structure overlaid with an objective, detached narrative voice, a style of writing I call phonograph mythopoeia. Sound theorists from the post-Edison era up until today often employ a similarly dispassionate scientific voice to articulate their theories, but their writings can be oddly superstitious and include frequent appeals to the mystic, the mythic, Nature, or notions of some transcendent phonographic truth¹².

Themes that seem to recall one or other of the central ideas of phonograph mythopoeia also exist outside of theories sound and recording, for example in popular culture or recent science journalism¹³. This is a coincidence that warrants serious consideration, since it suggests that the kinds of narrative strategies adopted by Edison and other authors, both the anxious and the utopian, may have set the tone for discussions of the relationship between culture, nature, and science that followed.

Utopian promises in marketing campaigns for cars, smartphones, computers and other novel gadgets are commonplace today; just as familiar are dystopian anxieties about technology run amok or threatening various human enterprises or aspects of culture with redundancy. As perhaps was true in the early years of the phonograph, this polarization of discourse concerning technology and culture into the utopian and dystopian, mythopoeia and anxiety,

12 For two recent examples, see Eric W Rothenbuhler & John Durham Peters, "Defining Phonography: An Experiment in Theory" (Rothenbuhler and Peters 1997), or Greg Milner's assesment of analog versus digital reproduction technologies (2010, 195-196).

13 Recent titles from magazine articles recall the anxiety of surrogacy as ("Will the internet become conscious?" 2012, "Will men and machines merge?" 2012), as does the appearance of androids in science fiction films (Pyle, 2000, 124-137).

may be obstructing a more considered—even rational—debate about what technology is and what kind of world we envision with it.

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THE SPIRITUALISTE CONNECTION: STYLISTIC AFFINITY AND STRUCTURAL HOMOLOGY BETWEEN BERGSON AND DEBUSSY

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Abstract: This article proposes some reasons for the striking similarity many authors have found between Claude Debussy's music and Henri Bergson's philosophical writings, by situating them in the spiritualiste movement. With the aid of Bourdieu's field theory, Bergson's and Debussy's leading positions as spiritualistes are shown to be homologous. Eschewing institutional and political power and instead focusing on creative works that emphasized individual freedom, the philosopher and the composer took relatively autonomous positions with high symbolic capital in their fields. The alignment of their positions may explain the stylistic, substantive, and functional connections others have perceived in their works.

Keywords: Spiritualiste, Debussy, Bergson, Bourdieu, Homology.

A CONEXÃO ESPIRITUALISTA: AFINIDADE ESTILÍSTICA E HOMOLOGIA ESTRUTURAL ENTRE BERGSON E DEBUSSY

Resumo: Este artigo propõe algumas razões para a impressionante similaridade encontrada por vários autores entre a música de Claude Debussy e os escritos filosóficos de Henri Bergson ao situá-los no movimento espiritualista. Com o auxílio da teoria do campo de Bourdieu, as posições dominantes de Bergson e Debussy como espiritualistas são expostas como homólogas. Evitando abordar o poder institucional e político e, ao invés disso, focando sobre as obras criativas que enfatizavam a liberdade individual, o filósofo e o compositor assumiram posições relativamente autônomas com alto capital simbólico nos seus campos. O alinhamento das suas posições

podem explicar as conexões estilísticas, substantivas e funcionais percebidas nas suas obras.

Palavras-chave: Espiritualismo, Debussy, Bergson, Bourdieu, Homologia.

Introduction

Let's begin with what was for me a pivotal moment. I had been investigating the phenomenon of "*debussisme*", the name French music critics used to label a community of adorers and imitators of Debussy's music that they perceived to have sprung up soon after the premiere of *Pelléas et Mélisande* in 1902 (Harrison 2011). In accordance with these writers, I had seen that indeed, dozens of composers were to varying degrees employing sounds and formal techniques reminiscent of Debussy. But, I disagreed with critics such as Pierre Lalo (1906) who wrote that this creative phenomenon was best understood as mindless imitation of Debussy. I thought that this shared set of techniques was being used to depict, celebrate, and stimulate the interior life of the unconscious or instinctive mind, as French intellectuals envisioned it =around 1900 (Harrison 2011, 98-156). To me, the form and character of subtle, unpredictable, intertwining textural streams in unconventional, processual forms that this *debussyste* music so often took bore an intriguing similarity to Henri Bergson's descriptions of the *durée pure*, the finely detailed and spontaneous complexes of mental activity that he claimed constituted pre-conscious thought. I was not the first music scholar to sense a connection between Debussy and Bergson: such remarks have been made by Vladimir Jankélévitch, Jann Pasler, and Daniel Shanahan, who have used Bergson's prose as an interpretive lens for this music. What none of these scholars have yet addressed in a satisfying way is the how and why of these connections. How had this

uncanny similarity between Debussy's music and Bergson's philosophical writings occurred, given that being born only three years apart, neither one could serve as a predecessor to the other? Furthermore, there is no evidence that they had a personal relationship or knew much about each other's work.

My pivotal scholarly moment occurred one afternoon when I found some clues in Pierre Bourdieu's essay, "The field of cultural production: or, the economic world reversed". In the midst of treating his main subject, 19th-century French literature, Bourdieu formed the outline of a web connecting Debussy, Mallarmé, and Bergson. I say "outline of a web" because the connections were faint. In one long aside on the need to examine Mallarmé's positions and dispositions, Bourdieu mentions Fauré and Debussy, connecting all three figures to contemporaneous trends of mysticism, irrationalism, nostalgia of certain audiences for "lost grandeur", and a struggle against Naturalism, scientism, and positivism. Here he also mentions the philosophers Fouillée, Lachelier, and Boutroux, the teacher of Bergson (Bourdieu 1994, 57). A short while later, Bourdieu validates Bouglé's labeling of Bergson as a "representative of the 'spiritualist initiative'" (Bourdieu 1994, 59). Keeping with his idea that relationships among professional positions is dynamic, Bourdieu does not draw strong lines between these figures, yet the suggestion of a relationship between Bergson and Debussy is there, within the context of Mallarmé's professional autonomy, and the key word seemed to be "spiritualism". That word will be a focal point of this article.

The lack of attention given to spiritualism in contemporary philosophical scholarship may relate to the bad name that "spiritualism" has acquired in the English-speaking world, as the label for the religious movement centered in the U.S. that occurred at roughly the same time. Its mediums and astrologers eventually acquired a negative reputation as con artists and delusional

necromancers. The *spiritualisme* Bourdieu refers to was an intellectual movement in opposition to the dominance in late 19th-century Europe of the natural sciences, nascent scientific method, and mechanistic or atomistic theories that many people believed could account for all aspects of human life (Knight 1986). In French, the word *spiritualisme* derives from “*esprit*”, which since the 17th century referred to the human faculties of reasoning and imagination as well as to the supernatural. Bergson, for example, opposed Herbert Spencer and his contention that all phenomena could be explained by a universal law of evolution (Gallagher 1970, 17). French and English-language primary sources starting around 1900 are pervaded by references to Bergson as a leader of this intellectual movement. As an American academic summarized it in 1915, in opposition to the “radical empiricists” within philosophy

Bergson erects the free and enduring movement discoverable in our inner life into the metaphysical substrate of all being...For Bergson found that in proportion as the mind devotes itself to practical thinking, submitting to the limitations of matter and of space and to the laws of logic, it becomes incapable of grasping reality—metaphysically impotent. (North American Review, 1915)

To distinguish this intellectual movement in France from American popular spiritualism, I use the French term *spiritualisme* in this article¹.

My primary argument in this article is that the main substance of the resonances between Debussy’s and Bergson’s texts are not primarily textual (not a matter of texts’ influence or inspiration over

1 Although distinctive, this philosophical *spiritualisme* circulating among European and American academics did overlap with spiritualist religion. Bergson’s sister married an occultist and magician, and Debussy maintained a relationship with occultist Edmond Bailly and his circle during the 1890s.

other texts or of ideas being traded among texts) but sociological. By “text” I mean any bounded result of creative activity that has survived in a fixed form, including musical scores, books, letters, interviews, and recorded memories. The links between these texts result from the relatedness of Debussy’s and Bergson’s socio-professional positions at a particular moment in history. Drawing from other sociologically-oriented studies on these fields in *fin-de-siècle* France, I aim to show how the fields of philosophy and music composition can be understood to have aligned in certain ways. The theoretical framework for these claims rests on Bourdieu’s particular notions of “field”, homology between fields, and the principle of autonomous hierarchization of the field. *Spiritualisme* will thus be revealed as a social phenomenon: group of people who participated in a shared discourse, a way of understanding the nature of reality, an affinity for individual and professional autonomy, and a generally similar position within the wider French socio-political structures. Bergson’s and Debussy’s roles as leading French *spiritualiste* figures will also come to light as one potential explanation for the congruencies of style and content their contemporaries and recent scholars have perceived between them. The main goal of this article is to delineate a social-structural web, leaving little space for musical analysis. Yet, concrete musical details will necessarily receive some attention, because musical creativity is of course central to composers’ professional activity.

The Limits and Possibilities in the Textual Connections

Before turning to Bourdieu, we will review any extant textual sources in which Debussy spoke of Bergson, or vice versa. Debussy was completely silent concerning Henri Bergson, aside from a joke in a letter from a family friend that shows Debussy’s awareness of

Bergson's reputation as a *spiritualiste* (Lockspeiser 1978, 198). This joke, however, gives us no idea of what Debussy knew of Bergson's writings or what he thought of them. On the other side, Bergson never wrote about Debussy's music, even though he enjoyed using musical metaphors to explain his ideas. When asked in 1910 by a journalist about the seeming affinity between his philosophy and some "modern art" movements, we do find a few relevant remarks. In response he first mentioned the Symbolists, with whom other journalists had already connected Bergson, but he was careful to phrase his answer to protect the autonomy and originality of his thought. He then turned to consider Debussy, again using a certain strategy to enact a simultaneous movement towards and away:

"I was also told," M. Bergson continued, "how much the music of M. Debussy and his school is a music of durée, due to the employment of continuous melody which accompanies and expresses the unique and uninterrupted current of the dramatic emotion. I have, incidentally, an instinctive predilection for the work of M. Debussy."² (Bergson 1910/1972, 843)

As with the Symbolists, Bergson admitted a relationship but mitigated its potency by leaving the observation of it to unstated others, a likely reference to the publications of some of his students who were interested in connecting Debussy and Bergson, especially Vincent Biétrix (1909). While Bergson believed in some connections among himself, literary Symbolists, and Debussy, this attribution is hardly substantial evidence for a case of influence. Examining their cultural products and discourse, we cannot find any strong textual evidence, that smoking gun of the musicology world, that Bergson

2 On m'a aussi signalé, poursuit M. Bergson, combien la musique de M. Debussy et de son école est une musique de durée, par l'emploi de la mélodie continue qui accompagne et exprime le courant unique et ininterrompu de l'émotion dramatique. J'ai d'ailleurs une prédilection instinctive pour l'oeuvre de M. Debussy.

and Debussy directly influenced each other. The situation is analogous to that observed by Alexander Carpenter between Freud and Schoenberg, who lived in the same neighborhood in Vienna but managed to ignore each other (Carpenter 2010).

Some Concepts from Bourdieu

Although French composers and philosophers working during this period were on the whole more similar than they were different, many of them were articulating their professional identity in terms of their distinctions from others. Such discourse pulls us into the orbit of Bourdieu's notion of professional fields. Over the course of several books, Bourdieu advocated a methodology for treating work, workers, and the products of working based on his notion of a dynamic field in time (Bourdieu 1979, 1990, 1993, Bourdieu and Wacquant 1992). Professional fields exist because individuals and groups of individuals take up positions therein, agreeing to collude and compete in what Bourdieu describes as a kind of social game with high stakes. Vigilance against nominalism is at the heart of his approach, as these fields consist of a configuration within one job category of relations oriented towards certain types of power and capital (economic, social/political, cultural/institutional or symbolic), not the people and the products taken in isolation from each other (Bourdieu and Wacquant 1992, 96-100)³. I will thus be concerned with the exterior, social life of intellectuals and their cultural products, but this emphasis on relational content should not be interpreted as a devaluation of the unique richness and nuanced complexity of the lives of these

3 In this sense, Bourdieu can claim that fields consist of objective facts. They consist of positions whose meanings are the relationships to the other positions in that field and other fields. The "true nature" or individual essence of a certain person or a certain work can remain hidden in Bourdieu's system, because it is explicitly sociological, concerned with constructed relationships (Bourdieu and Wacquant 1992, 97).

individuals, their work, or the reception of their work. Each professional field is constantly changing, and each one can be constituted by the researcher as the sum of a unique set of positions, relatively independent of other fields. Therefore, though there might be similarities between the fields of music and philosophy, their structures cannot be confused as mirror images.

Across his oeuvre Bourdieu provides a wealth of strategies and important considerations for re-constructing a field; here we will mention just a few of the points most relevant to the fields under our immediate consideration. Firstly, a person enters a field by taking a clear position in it or by clearly affecting others' pre-existing positions, most obviously by gaining a certain job or position within an institution. For a modern composer or any other worker tending towards freelance activity without permanent institutional affiliation, the point of successful entrance into the field might be difficult to determine. Bourdieu categorizes such occupations as "fields of cultural production", and they are characterized by fluidity of boundaries, positions, and relationships among positions (Bourdieu 1993, 43). As a result, fields whose workers produce culture, which includes all of the arts and literature, offer great possibility as well as risk. Due to the typical ambiguity of these fields in relation to the larger social structure, energetic struggles over the nature of the field and the way in which its products are evaluated are frequent. In the absence of decisive economic and political value of cultural works, cultural producers have the ability to declare evaluative criteria in ways that enhance their own prestige. Music scholars can immediately recognize in this description the bitter wars of words over the nature of music between rival groups that have been a mainstay of European and Eurogenetic (Reigle 2014, 234) musical culture since the late 16th century.

At the outset, we must examine the boundaries for membership in the field of “music composition” in Paris around 1900. Who counted as a member of the field of work called “composer” (as opposed to a pedagogue)? For Bourdieu this claim can be evaluated by bearing in mind that, “There is no other criterion of membership of a field than the objective fact of producing effects within it” (Bourdieu 1993, 42). Anyone desiring a position as composer at this time in France needed to at least have one composition performed by one of the prestigious Parisian performing institutions, winning a major honor such as the Prix de Rome, or becoming a persistent subject in the French musical press. Composers typically desired affiliation with musical institutions (performing venues, schools, administrative entities, powerful publications) that were for the most part directly connected to the government. What about someone who as a newcomer to the field had not yet achieved such honors, positions, or elite premiers? We can also search a different kind of “effect”, wherein other people who already hold clear positions in the field grant a measure of symbolic capital to a newcomer simply by paying attention to him or her as distinctive from the rest at a basic level. Through positive or negative discourse, a person implicates another person as necessary to consider, someone who has to be dealt with and cannot be ignored (Bourdieu 1993, 58). For that reason, Pierre Lalo’s vociferous attacks on Ravel as an imitator of Debussy starting around 1905 are a sign that Ravel had truly taken a legitimate position in the field of French music composition. Serious critics could not ignore Ravel, even though he had failed as a composition student and had produced no dramatic vocal works by that date!

The hierarchy of positions within an occupational field is a significant issue, because it has a preponderant influence on how much of the different kinds of capital the positions could bring to whoever holds them. Despite their importance, the principles of hierarchization are arbitrary; that is, the hierarchy can be determined

at a certain moment in the history of the field according to various criteria. In many fields prestige is a matter of quantitative measures such as salary amount, sales figures, or website views. Based on certain criteria, specific people holding specific positions come to be regarded as the most prestigious, admired, powerful members of their fields. These prestige positions then act as poles that generate the hierarchy of large numbers of other positions based on proximity or distance from these poles. The poles act as magnets for prestige and capital, a positive pull that usually relates diametrically to an opposite pole. Very often, the powerful poles in financially lucrative fields align with political and economic power (Bourdieu's "field of power"), so that generally, the more money someone makes, the higher up they are in the hierarchy of positions. Conversely, Bourdieu notes that fields of cultural production have greater possibility of orienting towards the field of power in various ways, even simultaneously:

It would be found that one of the most significant properties of the field of cultural production, explaining its extreme dispersion and the conflicts between rival principles of legitimacy, is the extreme permeability of its frontiers and, consequently, the extreme diversity of the 'posts' it offers, which defy any unilinear hierarchization. (Bourdieu 1993, 43).

For example, during Debussy's lifetime, other French composers like Alfred Bruneau had strong relationships with political elites and cultural institutions. The positions of Erik Satie and Ravel, on the other hand, were markedly independent of such ties, especially before World War I. We also find examples of French composers garnering the respect of their peers based on institutional power and the prestige of their works at the same time, such as Gabriel Fauré. In French music history, poles understood as masterful individuals defined by sets of binary oppositions have played an especially strong role in organizing the hierarchy of positions: struggles over the true

nature of music that involved sizeable constellations of people were frequently articulated as one major composer against another, such as Lullistes—Ramistes, Gluckistes—Piccinistes, or Debussy—Ravel. To an outsider these debates might have seemed like splitting hairs, yet if we realize that many of the people in these debates were competing for a limited number of positions in their musical sub-fields, the hair splitting becomes meaningful and even necessary, much as mere split seconds decide the finishing order of a competitive sprint.

The hierarchy of a field tends to relate strongly to other fields, especially the hierarchy of the field of power, which Bourdieu calls the “heteronomous” principle of hierarchization. However, in cultural production autonomous hierarchical organizations can also arise. That is, some composers, while they may have to take up some form of institutional position or pedagogical work to earn money, are more fundamentally concerned with the symbolic capital that comes with creating works that other composers hold in high esteem, based on criteria relatively free from political and economic forces (Bourdieu 1979, 253-256). Bourdieu calls such an organization autonomous, meaning resistance towards the poles of the field of economic and political power (Bourdieu 1979, 40; Bourdieu 1993, 39). “Art for art’s sake” or any claim that some music possess only formal meaning exemplify autonomous discourses in Eurogenetic music history. As Pasler notes, after the Franco-Prussian War music producers were under special threat of dominance and pressure from the new Republican government, which sought to use music as a tool for creating national strength and public unity (Pasler 2009, xii). In that climate, the heteronomous pole in the music composition field was quite strong; going against it would be difficult, but by the same token very rewarding in symbolic capital.

The final term to touch on is homology, which in Bourdieu’s scholarship extends flexibly to various sorts of alignments of positions

in different fields. Seeming to conceptualize the various professional fields as overlapping in imagined three-dimensional space according to the alignment of analogous poles or sources of power and capital, Bourdieu labeled positions that were structurally similar homologous positions. He gave special emphasis to homologues by virtue of matching relationship to poles of power, for example noting that cultural producers often feel solidarity with the lower socio-economic classes, because they both tend to be in economically weak positions (Bourdieu 1993, 44). In another place he comments on the homology between radicalized college students and professors keen to attack science and authority in France during the tumultuous 1960s (Bourdieu 1992, xxv).

Before setting out to explore the homologies between the positions of Debussy and Bergson, it is pertinent to observe the structural similarities and differences of their respective fields. The most significant difference is that for the last several centuries, philosophers have had more possibility to move closer to the pole of political power than art music composers. Philosophy departments existed and still exist at the elite and politically powerful *Grandes écoles* while music education has always been confined to the conservatory system. A total of 43 philosophers, including Bergson, have been elected to chairs at the Académie Française; music's generally weak position in French intellectual life is signaled by its distinction as the only branch of the arts to have never held a single chair. Several French philosophers such as Voltaire and Renan wielded influence in political affairs, but the same cannot be said for composers.

In other ways, however, music and philosophy shared characteristics. Since the 17th century, French intellectuals have repeatedly designated music as secondary to the other arts, as a kind

of derivative of literature (Cowart 1981). This marginality was compounded with a worry among French composers that their field had been overrun by foreign—especially German—influence in the aftermath of the Franco-Prussian War (Digéon 1959). The traditional prestige of philosophy was also under threat of marginalization in the late 19th century, as recent school reforms, shifts in academic life, and the invasive dominance of medical and natural science discourse had dislodged it from its crowning position among the intellectual fields (Pudal 2011, Kennaway 2012). Bergson and Debussy would both lay claim to positions in their fields as leaders whose ideas could rectify these structural weaknesses. Finally, we must note the emphasis on mental creativity and its precise expression and communication in texts in the nature of the work of modern philosophy and music composition. Both fields offered positions with high symbolic capital, and because of the aura of belief surrounding the creative abilities of both types of worker, composers and philosophers could appropriate their own products with apparent seamlessness to their identities (Bourdieu 1993, 34). As a result of their specialization in producing complicated texts, both philosophy and music require a high level of education, creative ability, and a certain self-awareness, all of which furthermore implicate a lifestyle with a great deal of leisure time and isolation. These similarities already point towards many possible homologies involving *spiritualiste* ideology between the two professional fields.

Debussy's *Spiritualiste* Autonomy

Claude Debussy exemplifies a pole of autonomous hierarchization within the composer field in early 20th-century France, as he moved from outsider in the 1880s and 1890s to a reputation as a celebrated composer of innovated masterworks by 1906. To enter his

field he did capitalize on some institutional links, such as winning the Prix de Rome in 1884. Opera had been the most prestigious genre in France since the era of Louis XIV; we can see the instant upsurge in the attention of the press to Debussy starting in 1902, with the first reviews of *Pelléas*, as clear evidence of how important completing the opera was to his career (Trilling 1983, 221). At the same time, Debussy was distinguished among his peers because, besides a minor advisory post at the Conservatoire in 1909, he did not take any institutional positions. He instead focused on creating cultural products to the point that he hardly took any private composition students and eschewed steady work as a music critic, lowering his potential income (Herlin 2011). Since his student days Debussy's anti-institutional discourse caused him trouble with authority figures, such as the displeasure of the committee at the French Institute as they received his compositions from the Prix de Rome villa. Maurice Emmanuel, who was a few years behind Debussy at the Conservatoire, remembered his reputation there as an "eccentric" and "worrisome propagator"⁴. *Pelléas* eventually became a classic piece at the Opéra-Comique, but Debussy composed his opera without the support of older composer mentors, agreements with performance venues, or publishers for the score (Grayson 1981). While Debussy was composing in the French genre most allied with political and economic interests in the 1890s, he harbored suspicions of the opera genre, desiring a markedly innovative and personalized final product (Emmanuel 1927, 34-36)

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- 4 Maurice Emmanuel remembers Debussy entering his classroom and astounding the students with wild improvisations at the piano. At one point he reported that Debussy shouted at them, "*Etés-vous incapables d'entendre des accords sans réclamer leur état civil et leur feuille de route? D'où viennent ils? Où vont ils? Avez-vous besoin de le savoir? Écoutez: ça suffit! Si vous n'y entendez goutte, allez dire à M. le Directeur que je gâche vos oreilles!*" "Are you incapable of hearing sounds without demanding their civil status or their travel papers? Where did they come from? Where are they going? Do you need to know? Just listen, that is sufficient! If you don't hear anything, run and tell the director that I am ruining your ears!" (Emmanuel 1927, 39).

and worrying about its reception in the Republican-dominated public sphere (Grayson 1981, 76). As will be discussed later, after achieving success, Debussy sought to maintain a reputation for unwavering creativity and innovation until his death in 1918.

By contrast, Debussy's peer Gustave Charpentier followed a more conventional path to professional power and success. Unlike Debussy, Charpentier attached himself after graduation to his network based around the Paris Conservatoire, especially the devoted relationship he maintained with his composition teacher Jules Massenet (Branger 2013). Following Massenet's lead, Charpentier focused his creative energy on opera according to the 19th-century French conventions. He also supported the ruling government's Republican ideal of universal education with the founding of the Conservatoire Populaire Mini Pinson and received multiple awards, forms of official sanction of his value to the French state. In contrast to Debussy's continued emphasis on the creative activity of composing music, Charpentier composed less and less after the success of *Louise*; after World War I his professional life consisted mostly of leadership roles in institutions for mass musical education.

By 1901, Debussy had constructed a controversial anti-establishment discourse that provided a specific interpretive frame for his music and his personality. Throughout his published music criticism and interview responses he defined the best kind of music through a dichotomy between natural versus conventional, freedom versus limitation. A good composer, he maintained, must be sensitive to the interior movements that exterior stimuli provoke in him, especially the trees, flowers, winds, sunsets, and waters of natural life (Potter 2003). One must express or represent those interior sentiments, guarding vigilantly against the conventional structures of thought that society emits, which could so easily pollute and distort one's pure memories and reactions. Debussy gave this pollution of the

individual inner sanctum a variety of epithets such as “books,” “rules,” “musical writing,” “formulas,” “scientific instruments,” “extreme complication,” “useless clamoring,” “thematic or symphonic development,” and “domestication.” His stigmatization of the term “métier,” as a composer constrained by his occupation, is especially telling (Debussy 1909/1971, 281). This idealization of his profession remained consistent over the course of his career. Debussy also refrained from warmly praising any other composers and attacked many of the canonical masters while still a newcomer to the field (Donnellon 2003, 43). With this discourse, Debussy created and claimed a new kind of position in the field of French composition around 1900, rejecting the typical route to success of hitching one’s star to powerful educational or performance institutions, or to another composer who already commanded respect in the field.

Debussy’s aesthetics of nature bears clear parallels to the *spiritualiste* faction in philosophy. To start with, the tone in each case is polemical, with explicit statements made about which people and ideas are being opposed. In both discourses, professional position is made into a self-reflexive issue, as the individual who has tapped into his fertile instinct must battle with the entrenched and inflexible conventions of the establishment to do meaningful work. The binary opposition is in both cases anchored in the concept of the instinct, which connects to the older notion of *esprit* and the more modern medical theory of the unconscious as the mysterious yet tangibly felt essence of human mental creativity (Harrison 2011, 120-126).

In the case of Bergson, the connection to *spiritualisme* is more obvious, since one of the traditional purviews of philosophy is the mind. In the case of French composers, the subject of musical inspiration had become an important topic in the burgeoning industries of music journalism and historical scholarship during the

19th century. In Debussy's discourse and musical texts, we also observe a crisis of poesis similar to the one experienced a bit earlier by the Symbolists, who came to suspect the codes and forms received from French Romantic poetry as unable to guarantee true expression or its communication to other people. Their discourse also questioned the possibility of inspiration untainted by societal conditioning (Potter 1990, Huebner 2007), which Silvermann (1989) construes as related to an elite sub-culture of interiority among artists in response to the anonymizing tendencies of modern urban life in Europe. The influence of the Symbolists on Debussy's aesthetics and musical techniques has been stated so often that it does not need repeating here. What is most pertinent is that one of Debussy's solutions to this crisis was to emphasize individual subjectivity, introspection, and the poetic freedom to invent whichever forms were necessary for effective expression. Based on those points he not only made the case to others for the value of his creative products, he also came into alignment with *spiritualiste* philosophers. Debussy's vision of natural processes in and outside of the human body as the supreme arbiter of the value of musical products could furthermore serve as a principle of autonomous hierarchization, because it was in theory a mechanism that circumvented social intervention of all types.

The visibility he achieved with the premiere season of *Pelléas* helped to push Debussy into a dominant, autonomous position, against the heteronomous direction of economic and political power, as large numbers of young composers, music critics, and other intellectuals responded to Debussy's discourse of artistic autonomy by participating in its circulation. They looked towards Debussy as a kind of prophet figure who could lead French music to new cultural resonance at home and prestige abroad (cf. Inghelbrecht 1953, 160-161, Ravel 1913/1990, 366-368). This youthful following was a prime example of Debussy making effects in his field, and the emergence of his following was effectively the creation of a pole at his position. One

such group of followers was the Apaches, a collective of composers and other artists who came together at the premieres of *Pelléas*, with the initial aim of studying the score of *Pelléas* and Debussy's aesthetic ideas. In addition to Debussy, the Apaches were also interested in other potential agents that as outsiders to the French musical mainstream could change the governing ideologies and power structures of their fields, such as esoteric Symbolist aesthetics and the music of the Russian nationalists (Pasler 2007). As reviewed in Harrison (2011), several other relatively young composers outside of the Apaches circle also affiliated publically with Debussy, such as Paul Le Flem, Maurice Emmanuel, Raymond Bonheur, Jean Huré, and Charles Koechlin.

Socio-Structural Homologies between Debussy and Bergson

In a like manner, Bergson's affinity to a spontaneous, unique individual instinct drew a large following in the philosophy field and was conducive to his relative professional autonomy. Pudal (2011) has asserted that Bergson was drawn to alternatives to the Third Republican government's preferences for rationalism, empiricism, and "*scientisme*" after their successful partitioning of church and state. *Scientisme* was thus aligned with the French field of political and economic power. Born in 1859, Bergson's education took place in a thick materialist environment; he first accepted but then took an opposing position to materialism, articulating a weakness in the theory that all human behavior and experience could be explained in terms of chain reactions of the movement of tiny particles. That weakness was time, which he claimed the recent materialists and philosophers since Kant had grown accustomed to conceptualizing

erroneously in terms of space (as in a clock pendulum tracking time by moving between two spatial points), and moments in time as static moments placed side-by-side (Bergson 1889, 169-182). Out of this argument grew Bergson's complex notion of the *durée pure* (pure duration), the intuitive experience of time that anyone can experience upon introspective observation of her/his own mental states. These states were, in his view, constantly changing, with the past lingering into the present moment, the present calling memories out of a kind of substrate. Bergson emphasized the spontaneous, ever-new character of the duration of thought, and its status "not as a thing that changes, but the changing itself" (Gallagher 1970, 19). While conventions of language and logic were necessary for facilitating social interaction and communication, these conventions could not be equated with the true reality of human thought, nor could they properly explain it. Thus there is, as with Debussy's frequent attacks on conventional, rationalistic formula imposed on the mental act of music composition, a strong and sustained current of anti-rationalism in Bergson's philosophical texts. Both men took up a public struggle against the dominant personalities within their fields in the late 19th century, whom they identified with empty rationalism.

The anonymous American author cited above, who in 1915 delineated Bergson's ideological position as opposite to that of the "radical empiricists", supports Pudal's version of historical events. In 1914, politician and historian Gabriel Hanotaux summarized Bergson's influence similarly, finding that, "He alone could oppose materialist determinism with such a strong and straightforward refutation" and agreeing with Bergson that concrete experience of the "*durée vivante*" provided the ultimate guarantee of the liberty of human consciousness from the conventions of language and academia (Hanotaux 1914). With the loss of the prestige of Spencer's and other evolutionists' theories in France after 1905, Bergson's *spiritualisme* rose to a dominant position; yet, before this point, when still writing his

first two books between 1889-1898, he faced an uphill fight for the validity of his ideas. These early 20th-century authors make it clear that an autonomous reversal of power away from the pole of political and economic power had occurred with Bergson at the lead, and that Bergson had come to be identified with the individual's mental autonomy from societal control.

In an intellectual climate favoring scientific empiricism as the proper foundation for the epistemology of all of the human body including the mind (Kennaway 2012), Bergson's turn to *spiritualisme* was fortuitous in another way. As he argued that the true nature of thought lay beyond mechanistic theories and medical experiments, he also safeguarded philosophy's classic introspective method and metaphysical perspective, which also happened to be Bergson's own working method; in "Introduction to Metaphysics" Bergson places these two methods in direct opposition (Bergson 1903). Thus, as in Debussy, we see a threefold iteration of autonomy in Bergson's textual content, discourse, and position in his professional field. Bergson also looked to nature in his "*données immédiates de la conscience humaine*" for validation of his theories. To be sure, Bergson had more socio-political power and less autonomy than Debussy, especially after 1910. This distinction of degree of autonomy is illustrated by Debussy's disinterest in making statements of any kind about Bergson, whereas Bergson made limited moves to sanction Debussy's work, as discussed previously. Yet, the path, direction of movement, and eventual powerful positions they gained in their respective professional fields were all homologues.

While at the height of their careers starting around 1905, more homologies can be found between Debussy and Bergson. After publication or performance of their first major works between 1889 and 1902, the two were quickly appropriated by "the establishment",

as their positions truly became poles that attracted others seeking positions that offered similar symbolic capital and relative autonomy. The names of Bergson and Debussy proliferated in the press, as a search of their names in Gallica periodicals indicates: entries for Debussy in French literature and arts periodicals sharply increased in 1901, and starting in 1906 his name proliferated outside of music and Paris, in provincial journals and social science fields.⁵ According to a Gallica search for his name, Bergson became increasingly more interesting to the French press with each of his book publications, until around 1905 he was generally accepted as an authority on human psychology. By 1912 Debussy and Bergson were being used in the press as household names.

Starting in 1909 some authors even began to explicitly formulate ideological and formal similarities between Bergson and Debussy, whose names had acquired such capital and cache that music critics and philosophers with an interest in musical aesthetics could use sophisticated discussions about them as a springboard for gaining their own professional power and success. Most of them, such as Biérix (1909), Bazailas (1910), Laloy (1914), Petit (1925), and Marcel (1925), did so through a stance of alliance, identifying the Debussy—Bergson—autonomous pole as sharing a *spiritualiste* perspective on the human mind and ascribing to that position. Biérix, for example, proclaimed that Debussy's music originated "in the very facts of consciousness" as described by Bergson. Although it was less common, others including Parès (1902) and Cor and Berys (1912) placed themselves in opposition to this pole and therefore gravitated towards the conventional—institutional—heteronomous pole. By suggesting hierarchical logics for or against *spiritualisme* that could be

5 This search was made at www.gallica.bnf.fr, which holds a large number of digitized periodicals, by inputting only the last name, since first names were frequently omitted in French publications at this time. The search results were then sorted through, to remove the results that came up for other people with the same last name.

applied to the works of contemporaneous composers, these writers, none of whom were composers, made claims for symbolic capital by relating their own cultural products and discourses to distinctive positions within the composers' field.

Even as they accepted the honors, renown, and increased capital that came to them after 1908, Debussy and Bergson maintained that their creative work was a highly specialized activity of greater significance than other official positions or popular renown. Upon reading Hanotau's observations about his popularity with the general public, Bergson immediately penned a letter published in *Le figaro* the next day, protesting that "I have never made the shadow of a concession to the 'general public'; my teaching is addressed to specialists" (Bergson 1914). Debussy reacted repeatedly against the claims proliferating in the press after 1905 that he had accrued a sizable school of imitators and admirers (cf. Debussy's comments in a 1911 interview in Debussy 1971, 296). After World War I, Debussy and Bergson, who had truly become dominant in their fields, both became targets of attack for younger professionals hoping to shake up hierarchy of the field in their favor. Durkheim, for example, felt the need to distance himself from Bergson (Pudal 2011, 765) and the dismissal of Debussy by Erik Satie and members of the Les Six group as overly sentimental have been well-documented in the musicological literature (Perloff 1991, 1-17).

Stylistic Homologies at the *Spiritualiste* Pole

Within this framework, the correspondences of style and content that other scholars have previously noticed between Debussy and Bergson take on a decidedly sociological as well as aesthetic dimension. As other scholars have already noted, Bergson's

description of the temporal quality of the *durée pure* do show remarkable overlap with Debussian time: the metric heterogeneity and consistent thwarting of hyper-meter structures in many of the piano preludes (Shanahan 2011), a strikingly subjective, immobilized sense of time in the ostinato of “Des pas sur la neige” (Rings 2008), and a playful sense of time in *Jeux* (Pasler 1982). Pasler finds a particular wave shape that subtly persists and unifies the many motives of *Jeux*, recalling Bergson’s contention that the past persists in the spontaneous present. This observation as well as her comment that development of material seems to take place outside of the score seem related to the notion of memory substrate and activation that Bergson treated extensively in *Matière et mémoire* (1896), a *spiritualiste* reaction to Ribot’s materialist account of memory in *Les maladies du mémoire* (1881). Debussy’s tendency to bring back shadows of previous material in a final, markedly slow and quiet coda section (see the ends of *Prélude A l’après-midi* and *Nuages*) suggests the mental sensation of time slackening as one struggles to keep hold of fading memories, consistent with Bergson’s belief that the rhythm of the *durée pure* could change according to the amount of tension in the nervous system (Harrison 2011, 131; Bergson 1896, 342).

Going beyond analogies between Bergson’s descriptions and Debussy’s sounds, Raphaël Cor contended that the qualities of diffuse imagery and detailed descriptions in Bergson’s writing style were “shimmering nuances analogous to *irisations* [term referring to material that shows the colors of the human iris] of thoughts, that perhaps call for a comparison with the *debussyste art*” (Cor 1912, 11). Though he is often dismissed as a conservative archrival of Debussy, Cor’s contention of a broad stylistic kinship between the forms of Debussy’s and Bergson’s texts is suggestive. We can also broaden our perspective on *spiritualiste* musical style to consider the many similar compositions by other French composers who gravitated Debussy’s position in the field to varying degrees. These include Apaches

members (Ravel, Caplet, Inghelbrecht, Sévéric, Ladmirault), Maurice Emmanuel, Charles Koechlin, and Paul Le Flem, who for several years after 1902 were particularly committed to such techniques.⁶ Figures such as Gabriel Grovlez, Louis Aubert and older composers such as Ernest Moret and Henri Woollett displayed their affinity for these techniques a bit later in time and only in select compositions (Harrison 2011). We might also consider young music intellectuals who rallied to the *debussyste* cause in the press, such as Jean Huré, Émile Vuillermoz, and Louis Laloy, as part of this movement. If we admit these additional music composers and writers into this discussion of *spiritualiste* music, we arrive at the possibility that the *debussyste* set of techniques and the discourse being produced in reference to those techniques not only helped French music professionals to express a certain way of life but also afforded its users a means to signal their identification with the Debussy—autonomous—*spiritualiste* pole of their field.

A particularly concrete example of the Bergson-Debussy homology manifesting in musical sounds and discourse comes from the compositions and writings of Paul Le Flem. Upon moving from Bretagne to Paris in 1899, Le Flem enrolled at the Paris Conservatoire and also began regular attendance at Henri Bergson's public lectures (Le Flem 1967). In 1902 he quit the Conservatoire with disgust, discouraged by his teachers' suppression of the Breton folk music he treasured and wanted to use in his music. Yet, in 1902 Le Flem encountered Debussy's compositions for the first time during the *Pelléas* premiers. Reminiscing later in his life, Le Flem claimed that in contrast to the environment at the Conservatoire, after hearing *Pelléas*

6 Representative *spiritualiste/debussyste* compositions for these individuals are as follows: Ravel, *Oiseaux tristes* (1905); André Caplet, *Paroles à l'absent* (1909); Desiré-Émile Inghelbrecht, *Automne: Esquisses symphoniques* (1906); Déodat de Sévéric, *En Langédoc* (1904); Ladmirault, *Vers l'église, dans le soir* (1909); Maurice Emmanuel, *Musiques* (1908); Charles Koechlin, "Améthyste" from op. 35 songs (1909); Paul Le Flem, *Par landes* (1907).

he felt like himself (*"Je me suis senti moi-même"*; Bernard-Krauss 1993, 14). He recalled the premier season of Debussy's opera as a seminal moment in his development, as he took part in a charge led by Debussy and shared among many young composers to challenge the musical establishment consisting of their teachers and the "old masters" they were instructed to follow. Themes of rebellion against the stifling rules of academic institutions, the importance of finding one's individual essence, and Debussy as renovator of French music recur in Le Flem's writings and radio transcripts.⁷ Le Flem took both Bergson and Debussy as models for his professional goal of composing music based on his unique, personal, interior states. While Bergson and Debussy may not have actively pursued a relationship with each other, Le Flem acted as a third person who perceived the two as related according to their professional life style and the nature of their creative products.

Between 1902 and 1912, Le Flem composed pieces that contain many techniques primarily associated with Debussy and which resonate strongly with *spiritualiste* style and ideas. Consider, for example, *Par landes*, written for piano solo in 1907 and shown in part in Example 1. With innovative harmonies (called *trouvailles* or *recherches harmoniques* by French critics), egregious infractions against classical voice leading, and unpredictable metric heterogeneity, Le Flem puts individual freedom of expression above socialized conventions. This temporal play, along with persistent

7 Consider, for instance, the tone and language of this characteristic quotation from Le Flem: "*Certains jeunes compositeurs, las des ronronnantes formules que de vénérables maîtres essayaient de leur imposer comme articles de vérité, avaient trouvé dans la féerie debussyste une esthétique, une direction, et même une syntaxe leur permettant de se renouveler, de se libérer d'habitudes surannées et de prescriptions à court de souffle*." "Some young composers, tired of the droning formulas that venerable masters were trying to impose on them as articles of truth, had found in the magic of debussysme an aesthetic, a direction, and even a syntax that allowed them their self-renewal and their liberation from outmoded habits and winded instructions". In "*Dans le souvenir de Debussy*", undated, unpublished radio transcript at the Fonds Paul Le Flem, Médiathèque Mahler, Paris, France.

motivic shapes, reminiscence coda, and formal process in which figures continually recombine in new ways echo Bergson's characterizations of the *durée pure*. In the overwhelmingly soft dynamics, detailed figures, and performance indications calling for nuanced and delicate sounds, Le Flem perhaps touched on the broad stylistic unity of Debussy and Bergson noted by Cor.

The image displays three systems of musical notation for piano. Each system consists of a grand staff with a treble and bass clef. The first system begins with a tempo marking *mais un peu plus rapide* and a dynamic marking *p*. The second system includes markings for *pp*, *f (avec passion)*, and *M.G.*. The third system features *ff* and *M.G.* markings. The notation includes various rhythmic values, accidentals, and phrasing slurs, indicating a piece with intricate harmonic and dynamic textures.

The image displays a musical score for Paul Le Flem's piece "Par landes" (1907), measures 42-59. The score is written for piano and bass. It begins with a treble clef and a key signature of one sharp (F#). The time signature is 4/4. The first system shows a melody in the treble clef starting with a half note G4, followed by quarter notes A4, B4, and C5, with a slur over the last two notes. The bass clef part consists of a steady accompaniment of chords. Dynamics include *mf* (mezzo-forte) and *M.G.* (mezzo-giochiato). The second system continues the melody with a slur and a fermata over the final note. Dynamics include *p* (piano) and *retenu* (retained). A performance instruction reads "*P(plus calme et un peu plus lent)*". The third system is marked "*Au Mouvement (assez lent)*" and "*pp M.G. (jointain et bien fondu)*". The bass clef part continues with a similar accompaniment. The score concludes with a key signature change to two flats (Bb major) and a final chord.

Example 1. Paul Le Flem, *Par landes* (1907), mm. 42-59

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Conclusion

Interestingly, it is Debussy and not Bergson whose works have stood the test of time into the modern era, even though during their lifetimes Bergson was more influential. This has been the case even

though their *spiritualiste* perspectives, which Bergson rightly recognized as a kind of metaphysics, generally fell out of favor in the intellectual climate after World War II. Discovering why Bergson came to be regarded as a minor figure in philosophy while Debussy has continued to occupy a major position in Eurogenetic musical culture would require still more research forays into the relational fields of positions within philosophy, music, and the field of power. The perennial characterization of music as non-representational in the scheme of European thought often leads to the socio-economic marginalization of musicians during their lifetimes. At the same time, this quality of ambivalent signification lends a certain flexibility to the meaning of musical products and the identities of producers that perhaps makes them more adaptive to the changing conditions of professional fields.

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MONO- VERSUS POLY-GENESIS OF MUSIC COSMOLOGIES IN AMAZONIA AND NEW GUINEA

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Abstract: For more than a century, anthropologists have marveled at the remarkable parallels between Amazonian and New Guinean cultures. How might one account for such similarities? I discovered astonishing parallels between the music cosmologies of Papua New Guinean Nekeni and Amazonian Enauene-Naue peoples, based on the transformation of human voices into spirit voices using musical instruments. Voice modifiers, relatively rare among the world's instruments, take the form of long tubes for only a few cultures in the world, with both peoples discussed herein applying them in similar contexts. In this paper, I discuss the growing importance of comparison in ethnomusicology and then present observations of two geographically distant music cultures, which support a theory of either mono- or poly-genesis.

Keywords: Amazon, monogenesis, music cosmology, New Guinea, voice modifier.

MONO- VERSUS POLI-GÊNESIS DE COSMOLOGIAS DA MÚSICA NA AMAZÔNIA E NOVA GUINÉ

Resumo: Por mais de um século, antropólogos têm se arrebatado com os notáveis paralelos entre as culturas Amazônicas e Nova Guineenses. Como podemos avaliar tais similaridades? Descobri surpreendentes paralelos entre as cosmologias musicais dos povos Nekeni de Papua Nova Guiné e os Enauene-Naue Amazônico, baseado na transformação de vozes humanas em vozes espirituais usando

instrumentos musicais. Modificadores de voz, relativamente raros entre instrumentos no mundo, tomam a forma de longos tubos somente em poucas culturas no mundo, com os dois povos aqui discutidos aplicando-os em contextos similares. Neste trabalho discuto a crescente importância da comparação na etnomusicologia e logo apresento observações de duas culturas musicais distantes, o que apoia uma teoria que seja tanto mono- ou poli-gênese.

Palavras-chave: Amazônia, monogênese, cosmologia música, Nova Guiné, modificador de voz.

The Value of Contextualization

... the doctrine of cultural relativism, [. . .] carried to its logical conclusion, glorifies the very incomparability of cultures. Such cultural insularity is, in our view, a fantasy; but it has contributed to what has become a very real intellectual insularity among cultural anthropologists, and on the part of anthropology vis á vis important allied disciplines; this insularity--or, if you will, fragmentation or lack of common cause--underlies the malaise or post-paradigmatic sense of crisis one detects in current anthropology. (Gregor and Tuzin 2001, 342)

Musical universals, classification, replicators, and the musical map of the world, are critical concerns that contemporary ethnomusicology has either ignored or simply rejected. In our opinion, ethnomusicology has not met its calling. (Brown, Merker, and Wallin 2000, 20)

Biomusicologists ... can convince musicologists in general of the legitimacy of evolutionary studies, and do their best to ensure that no one ignorant of music is allowed to pontificate on the topic. (Derek Bickerton 2000, 155)

Striking parallels between the geographically and historically distant religio-sonic systems of Nekení people (Serieng village, Papua New Guinea) and Enauené-Naué of the Brazilian Amazon fascinated *bikmen* (Tok Pisin, “important men”) and people of all ages, from a number of villages around Serieng. In this paper, I situate those parallels within a wide framework, after first presenting ideas about the potential value of comparative work. Rather than argue for a particular definitive answer, my goal is to raise pertinent questions about the complex relationships between Serieng music and Enauené-Naué music, as suggested by apparent musical and cultural parallels. I am suggesting the revival of an avenue of investigation that many American ethnomusicologists have neglected since the late 1960s, only gradually returning to comparative work since the turn of the 21st century.

Why is it important to consider individual musics globally? In my view, the world's musics constitute important components of history, religion, philosophy, and anthropology. Scholars in the humanities are typically assumed to have a sophisticated overview of the latter disciplines, but not of music, to the detriment of all concerned. Furthermore, as interdisciplinary studies continue to grow (for example, Klein 1990, Hayles 1991), the sciences increasingly reunite with and reconfigure religion, philosophy, and the humanities. Regarding new bridges between language, music, and biology, Brown, Merker, and Wallin argue that music is important because of its universal and multifunctional presence, because of parallels between music and language, and because it can act as a marker for migration and contact patterns (2000, 4). From an anthropological perspective, Thomas Gregor and Donald Tuzin evaluate comparative strategies as follows:

In summary, comparison is the bread and butter of anthropology. It is inherent in the act of classification, by which we identify unfamiliar behaviors, describe institutions, and communicate the

results of our work to others. We cannot describe one society without having others in mind, for comparison is the recurring alloy of our basic analytical tools. Comparison establishes and refines a common discourse among scholars working with different cultures (cf. Strathern and Stewart 1998: 251); it stimulates and provokes new perspectives on findings from particular cultures; and, it allows us to search for general principles through controlled comparison. Comparison elevates the level of our work to the quest for principles of human life that transcend any one culture, even as it accepts the importance of culture in forming people's interests and the views they have of others. (Gregor and Tuzin 2001, 7)

Three revolutionary innovations have made it possible to reclaim music's role in the sciences and humanities: the invention of recording technology, computerization, and advances in communications. Recording capability spurred a major leap in the quality and substance of representations of music. For the first time, particular experiences of sound-pressure waves on the body could be transported in space and time; scholars no longer had to rely on words and musical notation to represent sounds. This greater accuracy now permits a far more reliable understanding of music, substantially reducing many of the problems inherent in transcription and description.

Armed with ever-improving sound recording devices, ethnomusicologists have amassed an enormous database of the world's musics. Most of the scholars who attempted classificatory and historical studies, however, published their work at a time when only a fraction of today's information was available. There is now a need to return to this type of work, if ethnomusicologists are to participate fully in today's interdisciplinary world. Again, Gregor and Tuzin's

assessment of cultural anthropology seems apropos to ethnomusicology:

The Boasian critique discredited the search for universals of human experience and culture, thus leaving cultural anthropology ill-equipped, intellectually and methodologically, to incorporate eventual (especially late twentieth-century) discoveries in psychology, evolutionary biology, neuroscience, and genetics, all of which operate comfortably at the interface of universal and particular humanity. (Gregor and Tuzin 2001, 342)

A musicologist, linguist, or historian who wishes to find out basic information about instrument distribution, for example, would still have to rely on outdated works because ethnomusicologists of the past four decades have focussed on individual studies, and detailed scholarly overviews do not exist. Classic studies by Sachs (1940, 1953, and 1965), Collaer (1960), and Szabolsci (1965) evaluating instruments and melodies as global phenomena, have scarcely been updated. For example, the most recent overview of the distribution of shell trumpets appeared in 1916 (Jackson), and Henry Balfour's survey of voice-modifying instruments remains the only global consideration of these instruments (Balfour 1948), other than a dictionary entry (Reigle and Niles 2011).

Through a consideration of the relationships between Serieng music and the Enauené-Naué musics, we can take a step towards developing a deeper understanding of the role of voice-modifiers around the world. Considered together with genetic and linguistic studies, the multidimensional music parallels described herein invite a reconsideration of the possibility of cultural practice maintaining continuity over an extraordinary length of time.

Near-Universals and Migrations

Very few characteristics of music appear in every culture. Bruno Nettl has recently suggested that ethnomusicologists, who have shown little concern with comparative work over the last four decades, once again take up an interest in universals (2000, 471). I believe that the complex task of avoiding over-generalizations can now be tackled effectively, because we now have a vast literature and audio-ture to draw from (for a similar view from cultural anthropology, see Gregor and Tuzin 2001), along with high-speed analytical and communications techniques. Perhaps the term "near-universals" should replace the misleading word "universals," as the latter is so circumscribed as to have little practical value. The description, determination of limits, and mapping-out of all things musical are more useful than the identification of true universals.

Several intangible aspects of Serieng and Amazonian musics do appear to function, to greater or lesser degree, both around the world and across modalities. These include the creation/exercise of ambiguity, the use of melody as a deeply emotive memory trigger, the social functions of group music making, and the mystical source of music compositions (cf. Sullivan 1988; Hill and Chaumeil 2011).

While ambiguity appears to me the most important near-universal aspect of Serieng music, the particular melodies, timbres, and instruments associated with it are not near-universals. Delineating the sonic aspects of Serieng music has value, however, not because of its few near-universal characteristics, but because it is a constituent of a global phenomenon, and understanding this phenomenon requires perspectives on both its components and its entirety. Thus, having access to a description of the world's musical diversity (of which recordings constitute one of the most accurate

forms) is prerequisite to any work towards a broader understanding of music.

Along with description, history can provide information needed to make sense out of the many relationships, both in close proximity and widely separated, perceived between different musics around the world. Mapping out the locations of instruments and musical styles can tell us a great deal about migration, particularly when instrument distributions are contrasted with the locations of languages, material culture, food production, trade routes, and now genetic codes. Ideally, all of these markers should be compared at many different time points through history.

In "oral" cultures, the absence of writing has obscured the understanding of events to a greater degree than it has in areas with writing. For that reason, I think it is particularly important to consider all possibilities with an open mind when trying to reconstruct pre-histories of oral societies. Theories of prehistoric contact and/or migration have led to controversy in ethnomusicology (Nettl 2005, 259-71, 320-38; Jones 1964; Messner 1989) and in anthropology (Dillehay 2000; Davis 2000). Victor Grauer, a co-creator with Alan Lomax, of cantometrics, revived interest in the possibility that some aspects of musicking may remain intact or traceable over extraordinarily long time spans (Grauer 2011). Two issues of *The World of Music* (courageously edited by Jonathon Stock) presenting Grauer's ideas and responses to them, point to an open-mindedness too often absent from ethnomusicological discourse (Stock 2006A, 2006B). In his excellent book exploring music from evolutionary perspectives, Iain Morley indirectly critiques the possibility of long-term survivals in the musics of Native Americans, African Pygmies, and Australian Aborigines (Morley 2013, 11-31).

Genetics offers one of the most promising resources, used in combination with other markers, to evaluate and reconstruct contact

and migration theories. Dividing the world's peoples into nine groups according to the analysis of one hundred ten genes, Cavalli-Sforza and his colleagues posited a common origin for Melanesians, Pacific Islanders, and Southeast Asians (Cavalli-Sforza and Cavalli-Sforza 1995, 118-19). In harmony with this theory, recent genetic and archeological evidence lends support to surprising alternative models of the settlement of the Americas (Owsley and Jantz 2000; Schurr 2000), including the possibility of early contact between South America and Asia via Melanesia (Dixon 2000; Nemecek 2000, 86). Archeologists Walter Neves and Joseph Powell suggest that the Brazilian "Luzia," one of the oldest skeletons found in the Americas (13,500 B.P.), may share a common ancestry with Melanesians (Nemecek 2000, 86). The evidence for ancient contact between Melanesia and South America is especially provocative because of the remarkable parallels between Brazil and Melanesia reported by anthropologists and ethnomusicologists (cf. Gregor and Tuzin, eds., 2001; Knauft 1999, 157-94; Veiga 1981, 22-23, 27, 33; Picken 1980). In the first edition of *The Study of Ethnomusicology*, Bruno Nettl wrote that "the historical relationship of Melanesian and South American panpipes remains a possibility." (1983, 230). In the second edition, however, he deleted that comment (2005, 324-25).

In addition to breakthroughs in genetics, linguistic research has mushroomed in recent decades. Comparative work in linguistics draws from several disciplines and has produced sophisticated reconstructions of proto languages, including proto-oceanic. The most powerful reconstructions of migration history have combined genetic, linguistic, and archaeological data (e.g. Cavalli-Sforza 2001). Adding music to the mix has the potential to contribute additional markers in support of, or contradiction to, the evidence from those disciplines (cf. Brown et al. 2014; Savage and Brown 2014).

Parallel Characteristics

In this section, I briefly discuss characteristics of Serieng music (its sounds plus sociological components) in terms of parallels with Enauené-Naué music. I consider seven characteristics: repetition, melody, instruments, performance practice, ambiguity, religion, and language. The value of intercultural work such as this is twofold: First, understanding how a musical attribute functions globally may illuminate or suggest hitherto unnoticed functions in Serieng music; second, in reconstructing music histories, the greater the number of analytical components available, the more reliable the proposed history. In the simplest terms, following Ockham's razor, a single parallel similarity gives no clue as to whether the attribute appears through independent genesis (a biological or spiritual basis for the attribute) or diffusion. On the other hand, the question may be more easily evaluated where similarities appear between a number of attributes that can be compared across cultures.

First, let us consider repetition. An instruction-composition, written for an improvisation ensemble in Seattle, illustrates what I believe is a significant difference between American and Serieng musical experience in regards to repetition:

Repetition does not exist.

Repetition does not exist.¹

The Seriengs' greatly expanded tolerance for musical repetition, as compared with Eurogenetic listeners², is suggested by the way they perform their relatively small repertoire of melodies

1 Robert F. Reigle. 1994. "Repetition Does Not Exist." Copyright Acoustic Levitation Publishing, Los Angeles.

2 I use the term "Eurogenetic" as a more precise descriptor, also calling attention to the value-ladenness of our received dichotomy, "Western" and "non-Western." The latter terminology is commonplace in both American and Papua New Guinean scholarly discourse.

during nine-hour performances³. Typically, Seriengs may repeat a short melody dozens of times in succession. Many of the American listeners for whom I played recordings of *Kaapu* said that this repetition made them feel bored. They felt a similar boredom, however, with the music of American composers such as John Cage and Steve Reich, who have developed new pathways into the appreciation of non-developmental and repetitive forms. While Cage embraces the boredom itself, in a move to transcend it, Reich works with shimmering textures that encourage listeners' focus to drift among different levels of the formal structure.

I believe that Seriengs avoid redundancy to an extent similar to Americans, and their reception of repetition parallels, to some extent, the kind of focus Steve Reich works with in many of his compositions. An important difference lies, however, in the focus of attention. The polyrhythmic repetitions in many of Reich's compositions—music that is largely self-sufficient, intended for both the concert hall and the disembodied form of a recording or broadcast—tend to focus one's attention on the movement and interrelationship of the work's component sounds. The familiar repeated melodies of Serieng sacred songs, on the other hand, guide local listeners to vary their focus among the spectacle of performance, the accompanying social functions, memories associated with past performances, and the sound of the *singsing*. In the music of Serieng (and of Steve Reich), repetition over a long period of time permits a focusing and participation on a deeper level, and may accumulate to alter consciousness in the form of a second wind.

3 I base the observation of low tolerance for repetition by Eurogenetic listeners on the evidence of the history of musical style, and the role and reception of repetitive forms when they were finally introduced under the label "Minimalism" in the 1960s.

Similar uses of repetition appear in many traditional musics around the world, such as the twenty-four second Wayãpi song from French Guiana "The Toucan," that is repeated for five minutes (Beaudet 1998, 27-28). A great deal of Native American music repeats in order to match the duration of a specific activity. In Serieng, however, song leaders determine the length of a song performance first of all according to their own personal choice, and only indirectly according to the requirements of the evening's activities (i.e. the *singsing*). Repetition to this extent does not appear in European notated music until the 1890s, other than in compositions created for repeating over and over on a mechanical instrument such as a *laterna*. During 1893-1895 Erik Satie composed "Vexations," a theme and two variations lasting just under a minute, but to be played eight hundred forty times. After "Vexations," Eurogenetic composers did not take up this idea again until the 1960s, with the development of Minimalism.

There are a number of biomusicological implications related to the use of repetition. In the case of Serieng and probably many subsistence-economy cultures, the capacity for musical repetition may relate to repetition in other facets of life, such as diet. While a large number of foods are eaten during the course of a year, there is a great deal of repetition from day to day. The variety of foods is limited, and tubers, especially sweet potatoes, constitute a large proportion of the diet. The repetition of eating sweet potatoes is compounded by the fact that a large quantity of them must be eaten to obtain adequate protein, thus there is repetition both within a meal and from meal to meal.

A second biomusicological implication of repetition is that of symmetry. Drawing from both scientific and philosophical sources, astronomer John Barrow argues that humans are attracted to symmetrical forms because of the survival value of pattern recognition (Barrow 1995, 104-05). A repeated melody has a built-in

symmetry—one that evolves with the number of repetitions the melody undergoes. Viewed in this way, the symmetry of repetition raises a question of ontology: At what point does the seed unit become different from the entire performance. I believe that in Serieng, the part and the whole are not easily separable because "repetition does not exist" and because of the presence of clan melodies during times of upheaval as well as during day-to-day activities.

A third biomusicological implication of repetition concerns altered states of awareness. Some writings by Eurogenetic scientists cast a generally negative light on repetition. For example, in *Scientific American*, Woodburn Heron conducted an experiment to study the effects of a monotonous environment (i.e. one of sensory repetition), and found that "The individual's thinking is impaired; he shows childish emotional responses; his visual perception becomes disturbed; he suffers from hallucinations; his brain-wave pattern changes." (Heron 1972, 64). Such altered states of consciousness, while producing negative results in some situations, play an important role in religio-sonic systems around the world. Although most of the work on altered states in music has focussed on tempo and rhythm, perhaps equally important for changing states of consciousness are the widespread practices of performing all night, and of repeating melodic (as opposed to rhythmic) patterns. In the case of Serieng music, alterations in consciousness brought about through repetition are inevitably intertwined with memories associated with clan melodies. Such memories, I believe, play a role in the way each Serieng responds to every repetition in the different performances heard and participated in during the course of her/his life.

We have considered melody as an object that can be repeated; now let us move to some of the characteristics of melody itself. Serieng music fits in with the melodic shape that typifies the world's music systems: descent (Sachs 1965, 57; Kolinski 1965; Kunst 1967, 7; Spearritt 1979: 440-41). Descent is a near-universal to the extent that a melody with prominent ascending components may be perceived as ascending even though a majority of the intervals descend and the melody ends with a descent. The ending interval carries greater weight than most internal intervals because in terms of memory it is the most recently perceived interval. While most Serieng melodies start at a high pitch and end lower, the melodic shape of *pakung* flute melodies seems to come from the acoustic qualities of the instrument itself. Serieng's *pakung* melodies start low, go high, and end low, following the instrument's natural harmonics. Every single melodic cell, however, consists descending intervals.

The group of melodic cells that make up Serieng music overlaps with cell repertoires in many styles of music around the world. For example, *Kaapu naing* songs typically start with a held note at the bottom of the male vocal range, and then skip up to the main tone of the song, often approximately a fifth higher. Until more sophisticated and complete analyses of the world's melodies become available, however, it is difficult to evaluate the relative prominence and hence the significance of particular melodic cells⁴.

4 Eugene Narmour has set forth a theory that could produce a viable system for cataloging melodic cells. In one book he discussed basic melodic structures, and in another he proposed a "genetic code" of some two hundred seventeen melodic archetypes as the basis of complex melody (Narmour 1992). A book edited by Walter Hewlett and Eleanor Selfridge-Field points out some of the difficulties of such an approach, and offers many ideas on how to work with melodic comparison (1998). New Guinea is probably comparatively rich in terms of melodies. For example, Serieng village with a population of one hundred twenty has thirty-five melodies, or one for every four people; extrapolated to New Guinea's six million people, the potential number of melodies would exceed one million.

Serieng as well as people from nearby villages perceived similarities between local melodies and Brazilian Indian melodies. During my 1997 research trip I discussed and played a recording of the music of the Brazilian Enauené-Naué (Fernandez 1995) with people in Serieng. As word spread in nearby villages, people began to come to my house and ask to hear the Brazilian recordings. As few as one and as many as twenty people came at a time. They came from four villages, one of which speaks a different language (Ngaing). The listeners unanimously remarked that the music sounded like their own sacred music. Several of them sang along with particular tracks, remarked that the music made them feel very *sori* (Tok Pisin for sadness/longing/nostalgia), or smiled when they heard the instruments that are similar to their own.

In addition to melodies, the Brazilian music exhibited similarities in instrumentation, the third of nine parallels discussed in this section. Both Nekení and Enauené-Naué use voice-modifiers; the Nekení *tereri* is virtually identical with the Enauené-Naué *toreukuri*, except that the former is made of bamboo, and the latter of reed. The *tereret* voice modifier of the Brazilian Arara is even more like the Nekení instrument, being made of bamboo (Estival 1995, 21). The similarity between the names of the instruments could be explained in terms of onomatopoeia, but it is only one of many parallels between the Brazilian and New Guinean religio-musical systems. In addition to similar melodies and the split-tube voice-modifiers, both the Enauené-Naué and Nekení use more than one type of voice-modifier and both make voice-modifiers out of gourds. In the Nekení area, men forbid females from seeing the sacred instruments, so accordingly, when I played the Brazilian recordings to mixed groups of males and females, the New Guinean men forbade females from seeing the photographs of the Brazilian instruments.

Although many cultures use voice-modifying instruments, sacred voice-modifiers made of gourd are rare. Outside of Africa, gourd voice-modifiers have only been reported among a few groups in Papua New Guinea (Niles 1989a) and Brazil (Fernandez 1995). On the other hand, scholars have reported the use of gourd voice-modifiers in a number of central African nations, including Cameroon (Balfour 1948, 50), Republic of Congo (Norborg 1989, 339), Gabon (Norborg 1989, 231-32, 339), Malawi (Balfour 1948, 59-60; Tracey n.d., Track 17; Tracey 1973[1], 67), Mozambique, and Zaire (Tracey 1973[1], 67). Additional locations of the instrument will probably be identified in the future. The only worldwide study of voice-modifying instruments appeared more than half a century ago, and was limited to mirlitons (voice-modifiers that produce a buzzing sound, such as kazoo) (Balfour 1948).

In Serieng, the secret nature of the instruments shapes performance practice: The *Kaapu naing* are always used at night, when they can be more easily hidden from women. Before contact, the instruments were kept in spirit houses in the center of the village, a practice also found among the Enauené-Naué and Nhambiquara of Brazil. The former allow women to see the instruments, while the latter do not (Fernandez 1995, 25, 28). The neighboring Myky perform ritual music all night (ibid. 29), as do many New Guinean peoples, including the Nekení. Many large cities around the world have clubs where people dance all night, perhaps facilitating altered states of consciousness similar to those in Serieng. Music's duration and the use of repetition are closely tied to the unusual length of such marathon performances. Either a large quantity of songs must be performed, or songs may be repeated in order to fill up the many hours of performance. Writing about the *latmul* of the East Sepik Province, Gordon Spearritt suggests that the long duration and repetitive nature of a typical performance produce a feeling of

"timelessness," and that both latmul and outsiders may experience it (Spearritt 1979, 455).

Ambiguity, a fifth characteristic of Serieng music, constitutes both a function and a *modus operandi* of many styles of music around the world. Its importance in religious thought holds implications for musical systems, such as the Fang of Cameroon as discussed by Boyer (1994), and the Nekení. Furthermore, ambiguity is a key attribute of a substantial portion of Eurogenetic notated music, described eloquently by composers Leonard Bernstein (1976) and Jonathan Harvey (1999, 23-46), as well as music educators Reimer and Wright (1992, 212-20).

The central ambiguity of Serieng music concerns the source of the spirit voices. Much of the discourse on ambiguity in notated music, on the other hand, deals with delayed expectancy and adherence to norms. Harvey's book, accompanied with a compact disc, is exceptional in that he illustrates concepts of spiritual ambiguity with specific musical examples. At an informal meeting, he told me that the spiritual ambiguity of Serieng music as I described it did indeed share a similarity with the concepts he expressed in his book.⁵

Ambiguity functions in nearly all religions, often manifesting as mysticism or counterintuitive belief. Sound plays a key role in the exercising or playing out of ambiguity, as evidenced by the importance of music and the correct pronunciation of sacred texts in the world's religions. Voice-modifiers constitute a particularly direct method for transforming a human voice into that of a spirit or spirits, thus ambiguating both the sound and its creator.

5 I accompanied music critic Steven Koenig when he interviewed Jonathan Harvey in New York in November 1999.

The central story of Serieng traditional religion, that the women first owned the *Kaapu* instruments and the men took them away, was imported from a neighboring language group, as was the flute ritual of the Brazilian Nhambiquara people (borrowed from the Pareci; Fernandez 1995, 28). In both cultures, men forbid the women from seeing the instruments.

The final attribute of Serieng music I wish to consider here is that of language. Terms that may have been used as substitutes for, metaphors of, or in conjunction with key religious words (possibly shifting to an adjacent meaning when passed across languages) include those denoting spirit, song, trumpet, gourd, flute, drum, and ancestor. Some intriguing similarities between key musico-spiritual terms point to the possibility of potential cognates for a cluster of terms that may have been used to refer to a concept similar to the Nekení *Kaapu*. Most striking of these is the Amazonian term *kapu* (Waiwai language, “heavenly realm”) (Sullivan 1988, 116). A preliminary search of instrument names from around the world suggests that a widespread onomatopoeia shaped the naming of wind instruments because many of their names incorporate phonemes, such as /bu/ or /pu/, which reenact playing techniques when pronounced. In light of the multidimensional meaning of Nekení *Kaapu*—musical instrument, ancestor spirits, and song—the phoneme /pu/ is particularly interesting because of its widespread use both as the onomatopoeic sound/imitation of blowing (Osmond and Ross 1998, 107) and as a component of terms for grandfather/grandparent (Philsooph 1990, 103-105).

Parallel Styles

The seven components of Serieng music, discussed above in terms of parallels with other musics, together form a style that

represents Nekeni music. A few brief comments regarding parallels between Nekeni and other musics may provide an opportunity to evaluate the nature and extent of similarities and differences between the musics, as well as a chance to reflect on the sources of particular musical characteristics (diffusion or independent creation).

In addition to ethnomusicologists who typically develop profound insights into two or more music cultures, a few visionaries have been able to fully integrate a large number of very different musical systems in their listening. That is, they found commonalities below the surface, developing appreciations of underlying components of musics that may not appear obvious in the sound. Some of the most remarkable of these visionaries include Robert Cogan, Pozzi Escot, Peter Michael Hamel, Mickey Hart, Alan Lomax, Maurius Schneider, and Bence Szabolcsi. Finding similarities between one or several characteristics, as these musicians have, can provide the starting point for understanding and appreciating a new style, and expand a listener's aesthetic base with new perspectives.

Perhaps the key characteristic that links Serieng music to styles outside of New Guinea is that of ambiguity. In the case of Eurogenetic classical music, ambiguity in the form of spiritual mysticism constitutes a central motivating factor in the function, detail, and inspiration for a substantial portion of written music. Most of the oldest notated music has to do with religion, mythology, or mysticism. No longer limited to Christian doctrine, many post-World War II composers refer specifically or obliquely to the importance of ambiguity in their views on spirituality (cf. Leonard Bernstein, John Cage, Jonathan Harvey, György Ligeti, Olivier Messiaen, Luigi Nono, and Giacinto Scelsi).

Similarly, many jazz artists have spoken eloquently on spiritual inspiration (cf. Leonard 1987; Spellman 1966; Such 1993; Wilmer 1977).

Jazz musicians notable for prominent spirituality in their work include Albert Ayler, John Coltrane, Duke Ellington, Milford Graves, Cecil Taylor, and David S. Ware.

The sound of jazz and classical music differs greatly from that of Serieng music. The types of ambiguity also differ, but all of these musics may produce ambiguity per se in listeners. In Serieng music, the ambiguity concerns the identity of the source of particular sounds; in much of the specifically spiritual classical and jazz creation, the ambiguity has to do with transcendence.

Musics closer in sound to Nekeni music come from societies in the Amazon and Africa. Dan music from the Ivory Coast, for example, has a number of characteristics remarkably similar to Nekeni music, particularly in the use of voice modification. The musics differ substantially in sound, however, especially in their rhythms and in the relatively slower tempi of Nekeni music.

Musics that share with Nekeni music both similar types of voice modification and typical melodic, rhythmic, and tempo characteristics exist, I believe, only in the Amazon basin and in northern Papua New Guinea. Taken together with the similarities in traditional religion and gender concepts, the parallels between Amazonian and New Guinean cultures in general, and Enauené-Naué and Nekeni music in particular call for some explanation. At this stage, despite the growing genetic and archeological evidence supporting early contact between Melanesia and South America, independent creation appears more likely than diffusion. Biomusicological research combining musical, linguistic, anthropological, psychological, and religious studies is needed to evaluate cross-cultural parallels and their sources, in order to investigate why these widely separated cultures developed such similar religio-sonic systems.

The musics closest in sound to Nekení music come particularly from lowland South America, but also from societies in Africa. Some groups in Brazil's Mato Grosso use musical systems with many components similar to those of *Kaapu*. These parallels include musical instruments (bamboo and gourd voice modifiers, and sacred flutes), terminology (e.g. Nekení *tereri* = Enauené-Naué *toreukuri~Arara tereret*), protocol (ceremonial hut, hiding instruments, all-night performance), and melodies.⁶ Individually, such parallels are meaningless. Taken together, however, they suggest some sort of common agency or influence such as tropical living conditions, flora, and fauna. Diffusion or contact in the far distant past cannot at this point be ruled out, but archaeologists and geneticists have so far presented only meager evidence in its support. In the future, comparative musicological studies may contribute towards the solution of precisely this type of question, particularly where scholars can combine research from a number of disciplines, such as archaeology, comparative linguistics, and anthropology.

The Serieng religio-sonic system evinces striking parallels with a number of similar musics in the Amazon region. Although I have refrained from a detailed comparison of Serieng and Amazonian melodies, the anecdotal evidence of New Guinean village elders is compelling in its own right because it provides an emic view of the familiarity they report when listening to the Amazonian recordings. Taken together with parallels of musical instruments, terminology, legend, and performance practice, relationships among melodic types when placed in geographic, historical, and environmental contexts may provide clues towards distinguishing musical genotypes from phenotypes.

6 Fernandez 1995; Estival 1995, 21.

Conclusion

In his review of the remarkable album of New Guinean music, *Sacred Flutes!* (Johnson and Mayer 1977), biologist/ethnomusicologist Laurence Picken raised the question of diffusion versus biogenesis (Picken 1980). Written at a time when comparison was unpopular among American ethnomusicologists, his query did not spark any response. Discovering the remarkable parallels between Nekeni and Enauene-Nau musics rekindled my interest in Picken's question. Now, in light of a few more decades of advances in genetics, linguistics, and ethnomusicology, the question seems more pertinent than ever. Genetic variation, language, and archaeology have constituted the pool of evidence for reconstructing human evolution before the use of writing (cf. Cavalli-Sforza 2001). Can we add music to our toolkit for studying the distant past?

The striking parallels between Amazonian and New Guinean musics lend weight to the possibility of monogenesis. Although a time span in excess of 10,000 years seems to exclude the possibility of continuous musico-spiritual practice, nonetheless it cannot be ruled out if we are to adopt a scientific attitude of examining all possibilities. Indeed, it is exactly the spiritual practices that are likely to be most stable over time, particularly, it seems, in small-scale societies. It is my hope that comparative ethnomusicological work as garnered through genetics, linguistics, and archaeology, will contribute to our understanding of the distant past.

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STRAVINSKY AS SCHOLAR: EARLY MUSIC AND THE AMERICAN WORKS

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Abstract: Igor Stravinsky's interest in early music intensified after his emigration to the United States, where the music that he studied included newly published pedagogical anthologies and other items. He refers to early music at several points in the "conversation" books and elsewhere, yet rarely broaches directly the influence of early music on his own. Nevertheless, features of Stravinsky's music can be seen to engage with the contents of the various early-music sources available to him. This aspect of his style can be studied as an interesting component of his late-stage neo-classicism and early serialism.

Keywords: Stravinsky; early music; anthology; Mass; Orpheus; Agon; Canticum sacrum

STRAVINSKY COMO ESTUDIOSO: MÚSICA ANTIGA E AS OBRAS AMERICANAS

Resumo: O interesse de Igor Stravinsky sobre a música antiga se intensificou depois da sua emigração aos Estados Unidos, onde a música por ele estudada incluiu antologias pedagógicas recentemente publicadas e outros itens. Ele se refere à música antiga em vários momentos nos livros de "conversa" e em outros lugares, porém, raramente admite abertamente a influência da música antiga sobre a sua própria. Contudo, pode-se observar aspectos da música de Stravinsky engajando com o conteúdo de diversas fontes de música antiga então disponíveis. Este aspecto do seu estilo pode ser estudado

como um componente interessante do seu neoclassicismo tardio e primeiro serialismo.

Palavras-chave: Stravinsky, música antiga, antologia, Missa, Orfeu, Agon, Canticum sacrum.

The post-World War II years were a time of vigorous scholarly activity in the area of early music, notably in the United States, where emigré European scholars encountered a receptive academic environment and performing ensembles found stimulation in a steady exploration of early-music repertoires hitherto little known. The years following Igor Stravinsky's arrival in America in 1939 coincided fruitfully with the endeavours of performers, academics, and publishers in this field (both American and European), and his exploration of their monographs and music editions (particularly anthologies) makes for an interesting area of study. Harry Haskell mentions Stravinsky's contacts with performers Noah Greenberg and Safford Cape (while also noting that Stravinsky's earlier moves towards neo-classicism, in the 1920s, had had nothing to do with the early-music performance movement) (1988, 76 and 206). Scholars of early music who interested Stravinsky included Edward Lowinsky, and he also admired Ernst Krenek, a fellow emigré composer who had made a study of the music of Ockeghem, and whose own interactions with early music provide some interesting parallels with Stravinsky's. Looming largest among his closest associates is, of course, Robert Craft, the composer and writer whom he met in 1948 and who undoubtedly played a much larger role than the tag of "assistant" would imply. Craft in later years insisted that his close relationship with Stravinsky had assumed one of guidance as regards artistic

direction, and we can be sure that he facilitated many of Stravinsky's explorations of early music.¹

Stravinsky's neo-classical phase had taken hold many years before his move to the United States, and formed a background to his ongoing interaction with early musics after his emigration. The critical work, the ballet *Pulcinella*, had been premiered in Paris in 1920, and was famously described by the composer as "my discovery of the past, the epiphany through which the whole of my late work became possible" (1962, 113). The comment is intriguing, and since this work is based on actual music (by Pergolesi and others) rather than merely its style (and a style that, moreover, Stravinsky was inclined to disparage in later years), it sets an incomplete precedent for his later endeavours, both before and during his American period.

Indeed, the stylistic spectrum of Stravinsky's early-music interests in the American years spanned a wide range, and engaged in diverse ways with the techniques of his late-stage neo-classicism and eventual move towards serialism. The discussion below will rest on three premises: that Stravinsky's comments on the relevance of his early-music discoveries for his own compositions are deliberately cryptic, and leave many relevant connections "behind the scenes," as it were; that the individual works of Stravinsky discussed here each present their own unique complex of ingredients, in which input from early-music sources varies in type (and arguably in relevance); and that in Stravinsky's transitional music of the 1940s and 1950s archaisms and modernity nestle side by side in mutual complementarity.

Stravinsky's public and private American writings (the former represented most volubly by the so-called "conversation" books co-authored with Craft) demonstrate an avid interest in music dating

1 The situation is summarised in Pasler 1983. The importance of Craft for Stravinsky has emerged as a field of study in itself.

back to the Middle Ages (and indeed, beyond), one that took hold in earnest during the period immediately following arrival in the United States.²

As an area for investigation, however, the relationship between his consumption of early music, as auditor and browser, and his own compositional output can soon become tangled and vague. At the very least, the role played by early music in the works of these years, rather than forming any systematic pattern, was sporadic and tailored to the characteristics of the specific work in question. Often it is not a question of model transformation in any explicit sense; indeed, any influence usually went unacknowledged by Stravinsky, if not denied outright, in one or other of the conversation books.

According to Craft, Stravinsky acquired as many of the standard music anthologies as he could find. These almost certainly provided the material on which Stravinsky based his impressions of much early music, as well as sources for the name-dropping sprinkled throughout the conversation books. He would almost certainly have had access to the widely circulated American pedagogical anthologies which appeared from the 1940s onwards, such as the *Historical Anthology of Music* (hereafter *HAM*),³ *Examples of Music before 1400*,⁴ and *Masterpieces of Music before 1750*.⁵ But these American publications were by no means the first music anthologies, and Stravinsky may well have had access (either before or after his emigration) to such earlier

2 These are: *Conversations with Igor Stravinsky* (1959), *Memories and Commentaries* (1960), *Expositions and Developments* (1962), *Dialogues and a Diary* (1963), *Themes and Episodes* (1966), *Retrospectives and Conclusions* (1969), *Themes and Conclusions* (1972; a reprint of *Themes and Episodes* and *Retrospectives and Conclusions*).

3 Ed. Archibold T. Davison and Willi Apel, 2 vols., "Oriental, Medieval and Renaissance Music," and "Baroque, Rococo, and Pre-Classical Music" (Cambridge, Mass.: Harvard University Press, 1946 (rev. 1949) and 1950). I am grateful to Professor Richard Taruskin for first alerting me to the significance for Stravinsky of these and other collections.

4 Ed. Harold Gleason (Rochester, N.Y.: Eastman School of Music Publications, 1942).

5 Ed. Carl Parrish and John F. Ohl (New York: W. W. Norton, 1951).

publications as Johannes Wolf's *Geschichte der Mensural-Notation von 1250-1460*,⁶ Hugo Riemann's *Musikgeschichte in Beispielen*,⁷ Alfred Einstein's *Beispielsammlung zur Musikgeschichte*⁸ and Arnold Schering's *Geschichte der Musik in Beispielen*.⁹ (In addition, Wolf's *Sing- und Spielmusik aus alterer Zeit*¹⁰ was republished in New York (probably in 1946) as *Music of Earlier Times*.¹¹)

These anthologies played an important role in education during the 1940s and 1950s (and indeed, beyond: *HAM* was still commonly used as a teaching aid up until the 1980s). Inevitably, considering the huge repertoire these collections represent, their sheer selectivity can appear as a handicap. They undoubtedly introduced their readership to many composers and style periods for the first time, but simultaneously circumscribed that exposure to rather few exemplars. Indeed, the already highly selective content of the collections would often overlap. Johannes Ockeghem's chanson "Ma bouche rit," for example, appears in both *HAM* and Wolf's *Music of Earlier Times*, while the Agnus Dei I of Guillaume de Machaut's *Messe de Nostre Dame* is found in both *Examples of Music Before 1400* and *Masterpieces of Music Before 1750*.

Alongside these high-circulation items, a considerable additional amount of early music of varying vintages was published and available by the 1940s and 1950s. In fact, they include publications from which many of the anthologized items were sourced. The notably thorough Commentary in *HAM* provides source references for all of the featured works, along with details of any available sound recordings. Apart from primary manuscript and print sources, the editions cited include the series *Denkmäler deutscher*

6 Leipzig: Breitkopf & Härtel, 1904.

7 Leipzig: Breitkopf & Härtel, 1925.

8 Leipzig: B. G. Teubner, 1930.

9 Leipzig: Breitkopf & Härtel, 1931.

10 Leipzig: Quelle & Meyer, 1926.

11 New York: Broude Bros.

Tonkunst,¹² *Denkmäler der Tonkunst in Bayern*,¹³ and *Denkmäler der Tonkunst in Oesterreich*,¹⁴ along with Volumes 1 and 3 of Friedrich Ludwig, ed., *Guillaume de Machaut, Musikalische Werke*,¹⁵ Volume 1 of Dragan Plamenac's collected works of Ockeghem,¹⁶ Leonard Ellinwood, *The Works of Francesco Landini*,¹⁷ and Thomas Marrocco, *Fourteenth-century Italian Cacce*.¹⁸ Influential and pioneering textbooks published in the United States around this time are also cited in *HAM*: notable are Willi Apel, *Notation of Polyphonic Music*,¹⁹ and Gustave Reese, *Music in the Middle Ages*,²⁰ the latter hailed by Paul Echols and Maria Coldwell as "the first great milestone in American early-music studies."²¹

Apart from printed materials, gramophone recordings, again commonly in the form of anthologies, would also have been available to Stravinsky. Chief among these was probably the French *Anthologie sonore* series, begun in 1934 by Curt Sachs, who also provided many of the accompanying notes.²² By 1948 fourteen volumes had been issued, each comprising ten twelve-inch records. This early-music series ultimately comprised twenty volumes, and it rivals in scope the printed series cited above; in fact, several works featured in music anthologies were subsequently (or had been previously) recorded for *Anthologie sonore*. The set is cited several times in the notes on

12 Leipzig: Breitkopf & Härtel, 1892–1931.

13 Leipzig: Breitkopf & Härtel, from 1924 Augsburg: Filser, 1900–31; *HAM* gives the end-date as 1913, presumably a misprint.

14 Vienna: Artaria (and other publishers varies); *HAM* gives the dates as 1894-1938.

15 Leipzig, 1926 and 1929.

16 Leipzig, 1927.

17 Cambridge, MA: Mediaeval Academy of America, 1939.

18 Cambridge, MA, Mediaeval Academy of America, 1942.

19 Cambridge, MA, Mediaeval Academy of America, 1942.

20 New York: W. W. Norton, 1940.

21 Paul C. Echols and Maria V. Coldwell. "Early-music Revival." *Grove Music Online*. Oxford Music Online. Oxford University Press. Web. 17 Oct. 2015.
<<http://www.oxfordmusiconline.com/subscriber/article/grove/music/A2235052>>.

22 A useful history and description of the *Anthologie sonore* series is provided by Pierre-F. Roberg at <http://www.medieval.org/emfaq/cds/ans99999.htm>

available recordings included in the *HAM* commentaries (examples include Guillaume de Machaut's "Je puis trop bien," *HAM*, vol. I, no. 45, *Anthologie sonore*, record 67, and Giovanni de Florentia's "Io son' un pellegrin," *HAM*, vol. I, no. 51, *Anthologie sonore*, record 8).

As in *HAM*, source references were conscientiously provided throughout the accompanying notes to *Anthologie sonore*. While overlapping to some extent with those for *HAM*, these tend to focus more on such older European publications as Sir John Stainer's collections *Early Bodleian Music*,²³ Henry Expert's *Collection Anthologie Chorale*,²⁴ the J. A. Fuller Maitland and William Barclay Squire edition of *The Fitzwilliam Virginal Book*,²⁵ and the *Publikationen älterer Musik* series.²⁶

Various other record anthologies were already available in the 1940s, though invariably on a more modest scale than the *Anthologie sonore*. They included the *Columbia History of Music through Ear and Eye* (a chronologically organised set whose first three volumes feature Renaissance and Baroque music),²⁷ HMV's *French Masters of the Middle Ages* (including examples of organum, and the Kyrie and "Qui propter nos" sections of Guillaume de Machaut's Mass),²⁸ the Parlophone series *2000 Years of Music* (an earlier project of Curt Sachs, lasting from 1931-33), and the two sets of *Seven Centuries of Sacred Music* recorded by Yves Tinayre in 1937 for the Lumen label.²⁹

23 London, Novello: 1898 and 1901.

24 Paris: Alphonse Leduc, from 1900.

25 London and Leipzig, 1894-99.

26 Ed. Theodor Kroyer (Leipzig: Breitkopf & Härtel, 1926-1940).

27 Supervised by Percy Scholes (London: Oxford University Press, H. Milford, 1930-38). These collections were listed in *The Gramophone Shop Encyclopedia of Recorded Music*, 3rd edn. (New York: Crown Publishers, 1948), 614-17.

28 A significant later project was HMV's *The History of Music in Sound*, compiled by Gerald Abraham, from 1953 to 1959. Including detailed accompanying notes and musical examples, the set was apparently designed to complement the *New Oxford History of Music*, Vols. II (1954) and III (1960).

29 Haskell (1996, 73-130) provides a useful history of the rediscovery of early music during this this period.

Although much of this material would be found wanting by modern standards of scholarship (the performances on the sound anthologies particularly, whatever their huge documentary importance, are mainly of curiosity value today), it is nonetheless clear that the years following Stravinsky's arrival in America were by no means a dark age with regard to early-music availability. And it seems that Stravinsky readily took advantage of at least some of the resources available. It is known, for example, that he owned *Anthologie sonore*, and it is perhaps no coincidence that Josquins's *Duke Hercules Mass*, referred to in *Conversations with Igor Stravinsky*, 25, should appear in vol. III (record 73) of that set. As a further Josquin example, the second (three-voice) *Agnus Dei* of the *Missa l'Homme armé*, cited admiringly for the composer's handling of rhythm in *Memories and Commentaries* (107), is another *HAM* item (vol. I, no. 89). Among the instrumental repertoire, the "Stravaganza" of Giovanni Macque, mentioned in *Memories and Commentaries*, 116, is likely to have been the *Consonanze stravaganti* included as *HAM*, vol. I, no. 174 (incidentally, Giovanni Trabaci, referred to in *Themes and Conclusions*, 191, in relation to the chromatic tendencies of Macque and Gesualdo, is discussed in rather similar terms in the *HAM* commentary on this piece). And, noting Stravinsky's suggestion in 1956 of a "ricercar for 4 trombones" for inclusion in the concert program in which his *Canticum sacrum* would be premiered, we can observe that such a piece (though lacking any instrumental designation) is featured in *HAM* (vol. I, no. 136).

It is also quite possible that Stravinsky became alerted to otherwise obscure composers by a chance reference in *HAM* or in one of the other wide-circulation sources, and that this then provided the impetus for a more detailed exploration of their oeuvre or style. In *Memories and Commentaries*, 101, for instance, Stravinsky comments on a fragment from Baude Cordier's chanson "Pour le deffault de dieu

Bacchus,” almost certainly quoted from Gilbert Reaney, ed., *Early Fifteenth-Century Music*.³⁰ It is highly likely that he first discovered Cordier through *HAM* (vol. I, no. 48), or from Apel’s *Notation of Polyphonic Music* (pp.175, 427).

In fact, the inventory of books and music, manuscript or published, owned by Stravinsky and sometimes in signed copies (drawn up in the assessment of the Stravinsky estate) includes a number of specialist publications of renaissance and pre-renaissance music. Books and articles in the library included Manfred Bukofzer’s *Speculative Thinking in Medieval Music*³¹ and Edward E. Lowinsky’s *Secret Chromatic Art in the Netherlands Motet*.³² Early-music publications included Vol IV (*Cantiones sacrae*) of the Opera Omnia of Nicolai Gombert,³³ vol. II (comprising masses and mass sections) of the Collected Works of Johannes Ockeghem,³⁴ the *Opere complete* of Giovanni Pierluigi da Palestrina,³⁵ and *Le Manuscrit de Musique du Tresor d’Apt (XIV-XV siecle)*.³⁶

This section of the estate comprises, in part, material inscribed to Stravinsky. Admittedly, this included gifts and complimentary copies of works which he might not otherwise have exerted himself to obtain. Yet his correspondence with publishing houses does show that he took an active interest in what was on the market, making an effort to acquire whatever interested him. In a letter to Boosey and Hawkes of July 1959, Stravinsky refers to the catalogue of H. Tiedemann of Berlin, requesting thirteen items (specified in the letter by catalogue number and a very abbreviated description, such as

30 Rome: American Institute of Musicology, 1955, p. 2.

31 Offprint from *Speculum*, no. 17 (1942). This is most probably the article referred to in V. Stravinsky and Robert Craft 1978, 645.

32 New York: Russell and Russell, 1946.

33 Ed. Joseph Schmidt-Görg (Rome: American Institute of Musicology, 1951).

34 Ed. Dragan Plamenac (New York: American Musicological Society, 1947).

35 Ed. Raffaele Casimiri and Lino Bianchi (Rome: Scalera; Rome: Istituto Italiano per la Storia della Musica, from 1939).

36 Ed. Amédée Gastoué (Paris: E. Droz, 1936).

“Neumes,” “Reaney,” “Willaert,” “Borren. Orlando di Laso”).³⁷ Earlier, in August 1954,³⁸ he had contacted Edgar Bielefeldt (also of Boosey and Hawkes) with a view to buying three items from the catalogue of Musikantiquariat Hans Schneider as soon as possible. These were: no. 73 “Guillaume de Machaut,” no. 75—“Luis Milan—Sämtliche Werke,” and no. 77—“Schütz—Sämtliche Werke.”³⁹ As a final illustration of Stravinsky’s keenness to obtain editions of early music, in October 1955 he asked Bielefeldt to acquire for him Anton Webern’s edition of the second book of Heinrich Isaac’s *Choralis Constantinus* in the DTÖ series.⁴⁰ Stravinsky already had Book III in his possession—a Christmas present from Robert Craft in 1952—and he may well have been alerted to Webern’s edition by Louise Cuyler’s reference to it in her Introduction (p. 16).⁴¹ It is known that Stravinsky had a particular fondness for the music of Isaac, claiming in a 1952 interview with the *Herald Tribune* that “between his musical thinking and my own there is a very close connection,” and describing the *Choralis Constantinus* as “a great work” (quoted in Joseph 2002, 221).

When we turn to Stravinsky’s actual remarks about early music, especially in the Stravinsky/Craft conversation books, we can see that they emphasize a number of pet interests and theories. One of these is the approach to “tonality” outlined by Edward Lowinsky. Stravinsky

37 Craft 1985, 421. “Neumes” (catalogue no. 1012) might refer to a publication such as Michel Huglo, “Les noms des neumes et leur origine,” *Études grégoriennes* n. 1 (1954). “Reaney” (no. 1117) is probably a reference to *Early Fifteenth-Century Music*. “Willaert” (1518) is probably the *Opera omnia*, ed. H. Zenck and W. Gerstenberg, *CMM* 3, Vols. I-III (1950), IV (1952) or V (1957). “Borren, Orlande de Lassus” (808) is almost certainly a reference to that author’s monograph on that composer (Paris: Librairie Felix Alcan, 1920). Of the additional items listed in the letter, “Banchieri” (105) might mean Francesco Viatelli, ed., *Adriano Banchieri: Musiche corali*, in the series *I classici musicali italiani* (Milan, 1919); Schering (1931) includes as no. 151 a “Sinfonia für vier Instrumenten” by Banchieri.

38 Craft 1985, 382.

39 Stravinsky’s interest in Milan might have been aroused by his appearance in the *Anthologie sonore* (Vols. II (Record 17) and IV (Record 40).

40 Ed. A. von Webern, *Denkmäler der Tonkunst in Österreich*, xxxii, Jg.xvi/1 (1909).

41 Ed. Louise Cuyler (Ann Arbor: University of Michigan, 1950).

was familiar with Lowinsky's work on the Renaissance motet (he apparently even corresponded with him), and he comments approvingly and in some detail in *Expositions and Developments* (121-23) on that author's *Tonality and Atonality in Sixteenth-Century Music*.⁴² In *Memories and Commentaries* he talks specifically about chromaticism, contending that "the century of chromatic development, from Clemens Non Papa ... to Macque ... and Gesualdo, exceeds in sureness of harmonic movement and in the use of dissonance the chromaticism of the operatic composers of the seventeenth century" (111).

At the same time, he points out that "our whole approach to sixteenth-century music is apt to be slanted toward a chromaticism that was really no more than a tiny development" (110)—in recognition, perhaps, that it is so often the atypical and exceptional among early-music repertoires that most often peaks the interest of later composers.

Often, and of course most intriguingly for us, Stravinsky's references to early music are made apropos his own. They therefore form a strand of discourse by which the ever voluble composer chooses to provide for his reader a kind of erudite contextualisation of his works, and to hint obliquely at his techniques of composition. Numerous quotes from the conversation books could be given; together they present an unsystematic invocation of historical examples designed primarily to illuminate some of the different facets of Stravinsky's style as it evolved up to the 1950s. But at virtually no point does the composer detail any specific influences of early music upon his own compositions. Rather, he seems to have taken a riddling delight in continually evading this issue, offering instead a sparkling facade of anecdotes and suggestive comparisons with his own works—all of a *post hoc* nature.

42 Berkeley: University of California Press, 1961.

Thus, in connection with Lowinsky's observation that repetition of cadence "keys" at other points in the form was entailed in certain forms of dance music (*Expositions and Developments*, 121), Stravinsky suggests a parallel with his own use of "tonality repetition" in ballet scores "versus my development, in *Threni*, for example, of a kind of 'triadic atonality'" (122). And in *Conversations* (19) he professes to having studied Palestrina's complete service, and the Lamentations of Tallis and Byrd, prior to composing *Threni* (although denying that there is any influence of these works on his own music). In *Memories and Commentaries* (99), though, he does posit a vague structural parallel between a Baroque work and his *Epitaphium*: "as I worked the music out, it became a kind of hymn, like Purcell's Funeral Music for Queen Mary."

Stravinsky's comments, mentioned above, on a Josquin Agnus Dei and on the music of Baude Cordier (*Memories and Commentaries*, 107) are apparently made to provide parallels (not "equivalents," he stresses) to the polyrhythmic complexities found in *Movements for Piano and Orchestra*. His explanation is characteristically cryptic, yet seemingly reflects his deliberations, around this time, on the changing nature of the vertical/horizontal tensions generated by the encroaching serialism in the music of this typically harmony-oriented composer. Stravinsky continues here a tendency to stress the vertical dimension of his music: "My polyrhythmic combinations are meant to be heard vertically ... I hear harmonically, of course, and I composer in the same way I always have" (*Conversations*, 22).

The question of atypicality has already been broached, and it is not surprising that, for instance, these Josquin and Baude Cordier excerpts should display metrical and rhythmic complexities hardly typical of their eras. Stravinsky's notation of the Cordier, in fact, heightens visually the marked linearity of the music through a liberal

use of time signatures not present in the original Reaney edition.
(Example 1.)

Example 1: Baude Cordier, “Pour le deffault de dieu Bacchus,” as presented in
Memories and Commentaries, 107.

The comments provided above suggest that Stravinsky was casting around for examples of how previous composers and styles addressed the crucial issue of how the vertical and horizontal dimensions relate to one another. Thus, while the restrictions of serial writing differ little from the rigidity of the great contrapuntal schools of old, they simultaneously “widen and enrich the harmonic scope.” Just a few lines later, though, Stravinsky re-affirms the basic distinction between the two orientations: “We are located in time constantly in a tonal-system work, but we may only ‘go through’ a polyphonic work, whether Josquin’s *Duke Hercules Mass* or a serially composed non-tonal system” (*Conversations*, 23).

The various denials of influence that typify Stravinsky’s remarks about earlier composers’ music need to be handled carefully, however. Significantly, we have it from Robert Craft that during the parts of the year occupied with composition, Stravinsky listened to music which he considered “directional” to his work (1957, 7). It would therefore seem legitimate to explore some features of Stravinsky’s postwar

works with a view to the potential significance for them of these early-music collections.

An obvious starting point here would be the Mass, both as regards its highly traditional genre and its dates of composition. It was begun in 1944—the Kyrie and Credo date from this year—and the remaining three movements were completed in late 1947 and early 1948. Stravinsky himself pointed out that the work was conceived in terms of liturgical function: “My Mass was not composed for concert performance but for use in the church. It is liturgical and almost without ornament” (quoted in Craft 1949, 201).

These words suggest that stylistic purity and economy of means were intrinsic to the work, and to an austere and solemn vision of Mass worship. More specifically, the Mass was “provoked,” as he put it, by some masses by Mozart that he came across in a second-hand music store in Los Angeles: “As I played through these rococo-operatic sweets-of-sin, I knew I had to write a Mass of my own, but a real one” (*Expositions and Developments*, 65).

This “negative” influence alerts us to the presence of important alternative traditions in the work. The Mass is actually one of Stravinsky’s most consciously archaic works, appropriately enough in genre so steeped in tradition. But at the same time, his engagement with the techniques of more remote musical pasts would return, in diverse configurations, among several of his later pieces. As Stephen Walsh puts it (2015), the Mass “linked to a certain archaism of sound and technique, in which respect it looks not only backward but also forward in Stravinsky’s own work.”

Stravinsky offered following denial: “I was not influenced in my Mass by any ‘old’ music whatever, or guided by any example” (*Expositions and Developments*, 65). This amounts to a veritable throwing down of the musicological gauntlet. Craft (1949) outlines

some of the work's reflections of earlier traditions, particularly regarding textural features and modal elements. He also suggests that that the concertante-ripieno vocal style employed in the Gloria and Sanctus "reconstitute the oldest Psalmis Graduale-Response idea of the liturgy." And beyond the employment of responsorial techniques lie a broader range of early stylistic procedures. At several points in the work, for example, the melodic style can be said to approach that of plainsong. If we consider the rhythmically supple vocal line at the beginning of the Gloria, for example, we see that it consists of two melodic statements (each performed "preferably solo") of limited melodic range (a fourth), moving by step with written-in decorative inflections (triplets) and, significantly, relatively little rhythmic vitality (at least as compared to the instrumental parts at this point). The second statement, by the discanto, is a quasi melodic inversion of the opening. This soloistic section is followed by choral recitational delivery—with very few deviations in the upper line from a 'reciting' note, E_b—with the middle voices moving somewhat more freely, though for the most part by step. This whole choral formula is then repeated in order to accommodate another line of text.

Within the second solo section, at "Domine Deus," the stylistic engagement of the melodic material with medieval precedents becomes still clearer. After a restatement of the opening solo line a passage evoking parallel organum follows, based, as a sort of contrapuntal adornment, on the opening bars of that line (suggestive of the *vox principalis/vox organalis* relationship; Rehearsal 16, 17). This itself is subject to a varied repeat (beginning one bar before 18), the first bar being stated twice, and some of the note values are lengthened towards the end of the phrases. The last two bars (in the original note values) then alternate with two further choral interjections—again recitational in nature—with the bass line now for the most part in octaves with the discanto. More 'organum' follows

(Rehearsal 22); this time, the two solo lines gradually diverge from a unison opening—a technique exemplified in Reese's excerpts from the anonymous ninth-century handbook *Musica enchiriadis* (1940, 253-57)⁴³.

Also strongly suggestive of plainchant is the fugue subject in the central section of the Sanctus, for solo voices (two bars after Rehearsal 45), which is based, initially, on the pitch e with small inflections. Perhaps Craft (1949) had this passage in mind when he announced that the movement contains a "amazing revival of Gregorian Neumes"—including even a Climacus Resupinus Flexus. This neume is included in Reese (1940, 131), being the longest of the compound neumes there itemized, which presumably provided Craft with his terminology.⁴⁴ It is highly likely that Stravinsky too knew this influential book.

The Mass comes nearest to homorhythmic and recitational chanting in the largely syllabic Credo, the central and longest movement. But a major shift occurs at its closing Amen: both the orchestral accompaniment and the homophonic texture are relinquished, and yield to a brief set of imitative entries of a new theme, leading to the closing cadence. Here, though, there is common ground with late-medieval Mass settings. In both the Gloria and Credo of the Machaut Mass, and the "Et in terra pax" by Ciconia included in *HAM* (vol. I, no. 55), the Amens appear as new, melismatic sections appended to the end of their respective movements. Significantly, in the Machaut examples the sectional break also coincides with an element of stylistic contrast.

With regard to cadential procedures, Craft cites the Plagal close of the Credo, but appears to overlook the more convincing Plagal

43 *HAM* would also include examples of organum, in a section on "Early Polyphony."

44 The neume is not explicitly named in Apel 1942.

cadence at the end of the Gloria (where a IV-I progression is articulated particularly clearly in the choral parts). The cadence at the end of the Sanctus is interesting in terms of Stravinsky's treatment of the Phrygian mode.

In this discussion of modal elements in the Mass, Craft suggests that its Phrygian tendencies were anticipated in the closing chord of *Mavra* and the first movement of the *Symphony of Psalms*. The clearest allusions to this mode occur in the Sanctus, in the fugato from two measures before Rehearsal 46, where Phrygian has in a sense been "prepared" for by the final establishment of a triad on E in the previous bar (E, the root of the triad, has been approached from F, itself a Phrygian move—and the sense of arrival at this point is enhanced by the fact that this is the first time that a prominent quintuplet on b and c[♯] has been given full triadic support).⁴⁵

The Dorian mode is also prominently used in the Mass. At Rehearsal 3 of the Kyrie, for example, there is a short Dorian section, framed by D major harmony such that, initially, the music simply conveys the impression of a shift from major to minor. The brief switch to Dorian is highlighted by new material—another choral fugue, based on a 'gap-fill' type of theme starting with a falling octave leap, and a quasi-ostinato figure in trio-sonata texture assigned to bassoon and oboes (Craft [1949, 204] likens this instrumental figuration to Purcell's style).

It is the Dorian mode that actually has the last word in the work, which ends instrumentally and with palindromic figuration. In fact, in the work's penultimate bar the first oboe plays the same d-e-f-e-d motive with which the bassoons completed the Dorian section of the Kyrie. And, Dorian is here being associated again with D major, if

45 In a study of pitch organization this work, Kofi Agawu (1989, 155) downplays the importance of the Phrygian mode in this fugato section, pointing out that the lines move away from their initial points of imitation, E, B, E, B.

less immediately than in the Kyrie. The recurring instrumental passage in the Agnus Dei has closed on a D major triad; thus, three subsidiary cadences on D major are finally replaced by the closing Dorian sonority (making for a “serene and complete” ending, as Craft [1949] puts it).

Stravinsky’s disclaimer regarding influence notwithstanding, then, aspects of the Mass clearly stand in the shadow of earlier practices. Yet the time period over which he composed this work inevitably comes into play in any discussion of influences. The publication of *HAM* during the period intervening between the first two movements and the three later ones makes the Machaut Amen at least a viable influence on the Credo (while Reese’s book, on the other hand, had been potentially “directional” from the outset of the compositional process). At the same time, we might easily account for the consecutive fifths and other ‘organum’ features of the Gloria, for instance, as part of a generally available sound ideal, easily conceivable independently of any specific trigger from a printed source. (Likewise, we should of course allow that even the Credo’s employment of a separate Amen might simply have sprung directly from the composer’s own creative instincts.)

Orpheus, a ballet in three scenes, was premiered in 1948, which makes it contemporaneous in composition with the later stages of the Mass. One of the trilogy of ‘Greek’ ballets produced in collaboration with George Balanchine, it has sometimes been interpreted as a romantic equivalent to the classicism of the earlier *Apollo* (***Apollon musagète* of 1927-28 (the third, *Agon*, will be discussed below)**). Though it falls well before the American period, some comments on *Apollo* might be appropriate before we consider *Orpheus*.

Apollo (as Stravinsky came to prefer the title), premiered in a program at the Library of Congress, Washington, in 1928, does not present a pre-existing narrative as such. Rather, it provides representations of Apollo (including, at the start, Apollo's birth) along with three of the muses. (This restriction to three Muses appears to have been in response to a time constraint included in the commission.) In musical style this work is closest of the three to the traditional formulations of musical neo-classicism in its textural sparseness and somewhat monochrome scoring (its "whiteness," as the composer himself put it), being limited to a conventional string orchestra of violins, violas, cellos and double basses. The work immediately brings us to the question of how an ancient Greek theme is to be represented in ballet music. Important to Stravinsky appears to have been the wish to evolve a style "free of folk-lore," as he expressed it in *Dialogues and a Diary*. At the same time, he heralds a musical past in his explicit invocations of the French seventeenth century, announced at the outset by music evoking a French overture. More pertinently, however, it is in classical poetic metres, studied so assiduously in the cultural ambience of the court of Louis XIV, that antiquity is represented. Stravinsky himself remarks in *Dialogues and a Diary* that the real subject of *Apollo* is versification, and he goes on to draw attention to the prevalence of iambic (short-long) rhythmic patterns throughout the work. He also points to the 12-syllable Alexandrine line; one such, by the seventeenth-century author and staunch classicist Nicolas Boileau, heads the Calliope variation.

Stravinsky described *Orpheus* as "mimed song," and from the standpoint of symbolic representation, this work presents one important shift of medium in that Orpheus, famed in legend as singer and lyre player, is here portrayed through the combination of ballet and instrumental music. These two media therefore combine to evoke the one element, Orpheus's voice, that is central to his legendary powers yet not physically present. And in an imaginative stroke, his

voice is again alluded to—but at a still further remove—when, in the closing “Apotheosis” movement following Orpheus’s death, the solo harp, symbolizing his lyre, twice interrupts a fugal passage on the horns with an accompanimental pattern derived from the earlier Second Air de Danse, in which Orpheus had appealed to Hades through his music. As Stravinsky put it to Nabokov (1949), “Here in the Epilogue it sounds like a kind of... compulsion, like something unable to stop... Orpheus is dead, the song is gone, but the accompaniment goes on.”

Predictably, Stravinsky denied specific early-music influences in this ballet:

The question of influences, incidentally, cannot be broached at all. They do not exist—not Monteverdi in the end movements, not Czerny in the arpeggio passages before [Rehearsal 146] and [Rehearsal 148] (Themes and Episodes, 48).

...But even if I knew ancient Greek music, it would be of no use to me. The sophisticated painters of the Renaissance painted the stories of ancient Greece or the Bible in the European landscape and costumes of their own time without attempting to reconstruct the scenes of Greece or Palestine with historical accuracy. (Written response to questions posed by RCA’s Allan Kayes in 1949, quoted in Joseph 2002, 190)

Such broaching of non-influences echoes his comments on the Mass. In the case of Monteverdi he perhaps feared that the step-wise harp line in the framing movements might too casually be related to a Baroque walking bass, or that the earlier composer’s treatment of the same legend might prompt more far-fetched parallels. Ingolf Dahl’s opinion on the work is insightful, “what connects *Orpheus* with the composers of the early Baroque era is a strong affinity in attitude rather than an affinity in details of means” (1949, 70).

As mentioned earlier, *Orpheus* addresses a different element of Greek culture than *Apollo*, in its retelling of a narrative, in this case a myth with universal attributes. It is significant in this regard that Stravinsky's score contains more instances of the marking *espressivo* than any of his previous neo-classical works. Yet in certain of its musical traits we also can track a closer and more tangible engagement with the tonal materials of Greek music.

The outer movements exhibit noticeable modal properties (these are the beginning of the first scene, in which Orpheus laments the loss of Euridice, and the third scene, the apotheosis). In the work a harp is used to represent Orpheus's lyre. Joseph (2002, 207) has described the harp's line as "motionlessly descending . . . a marvel of stasis, capturing not only the music's eternalness but also the ancient power of the myth it seeks to evoke." Arguably, the effects of motionlessness and eternalness are grounded in some fairly specific materials consciously applied by the composer. At the outset the harp plucks a descending Phrygian scale (the Greek Dorian) between e' and e. Moreover, the harp line more often than not breaks up this scale by interjecting the initial e' between b and a, thereby dividing it into its two adjacent (or disjunct) tetrachords. Here, Reese's discussion of the Greek modes in *Music in the Middle Ages* is surely enlightening as regards Stravinsky's compositional toolbox when he worked on *Orpheus*. Reese (1940, 28) postulates a six-stringed lyre, which would, he says, have been capable of spanning one octave. He goes on to discuss the modes with reference to an e'-e octave range, the 'Dorian octave': this was, as he puts it, the "octave par excellence of Greek music," and the one comprising the two distinct tone-tone-semitone (TTS) tetrachords (in descending order) (1940, 29). Stravinsky's descending harp scale is an exact representation of that scale as it appears in Reese's music example. (Example 2.)

Further, in order to elucidate the various modal configurations of tones and semitones within this characteristic octave, Reese (30) refers to the Greek *tonoi* to our present-day keys in a music figure. He relates the Greek Dorian to A (A minor). Might this be significant in view of the way in which the first movement of *Orpheus* ends? In the final bars of the opening scene, the last complete scale played on the harp is that of a-A; A then forms the root of the closing chord. In addition, the a-a' octave virtually provides the pitch range of the first violins. b' provides only one, decisive, appearance—one which coincides with the only accidental used in the string parts, c# (as well as the harp's first excursion, albeit still by step, out of the e'-e octave). Moreover, the simultaneous arrivals on b' and c# do not merely present a technical extension of the pitch vocabulary, but form a syntactical, structural gesture: the chord thus produced arrests the string music, to be followed immediately by a pause and the first chordal interruption by the wind instruments.

The closing tableau of *Orpheus* is "Orpheus's Apotheosis": "Apollo appears. He wrests the lyre from Orpheus and raises his song heavenwards."⁴⁶

46 Stage direction in score.

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ORPHEUS
ORPHÉE

1

First Scene **Premier Tableau**

Orpheus weeps for Eurydice.
He stands motionless, with his back to the audience.

Orphée pleure Eurydice.
Debout, dos au public, il ne bouge pas.

IGOR STRAVINSKY

Lento sostenuto, $\text{♩} = 69$

Arpa
mf marc.

Violini I

Violini II

Viola

Violoncelli

Contrabassi

Example 2. Opening of Stravinsky, *Orpheus*.

2 *Some friends pass bringing presents
and offering him sympathy.* *Passent des amis avec des présents.
Compliments de condoléances.*

Fl. I, II
Cl. II
Tr. I, II in B \flat
Tbn. I
Tbn. II (Basso)
Arpa
Vi. I
Vi. II
Vie.
Vc. (4 Vc. Solo)
Cb.
4 Vcl. Solo
Tutti unis
Tutti unis
glissier
tout le long
de l'archet
sans portamento
non div
attacca

B. & H. 18285

Example 2 (continued)

Here though, the harp's originally descending scales yield after four bars to rising scales beginning on d, the Greek Phrygian. But again, tetrachordal divisions of the octave are at work. In fact, the new ascending scale mirrors exactly the opening scene's descending pattern by presenting its melodic inversion. This is pursued exactly, even with regard to the small irregularities incorporated into the music. The upward octave leap, e-e' at bar 2 of the first scene, then, is matched by d-D (two bars after Rehearsal 144) in the third scene. Also pertinent here is the ending of the unison violin/muted trumpet line. At Rehearsal 148, after the second of two harp interruptions, the line rises stepwise to a sustained f[#]—the third of the major triad with the work closes.

Naturally, then, this closing "Apotheosis" departs significantly from the opening. In place of a homophonic texture it features a more complex, contrapuntal fabric suggestive of the textural differentiation of, for example, the thirteenth- and fourteenth-century motet. Yet, with the exception of the caccia (of which examples, such as *Tosto che l'alba*, or other contents of the 1942 Marrocco compilation of fourteenth-century cacce were available to the composer), medieval precedents for the fugal horn parts are virtually non-existent.⁴⁷ To be sure, the language Stravinsky used when discussing the piece with Nicholas Nabokov during Christmas 1947 is rich early-music connotations: "See the fugue here ... The two horns are working it out, while a trumpet and a violin in unison sing a long, drawn-out melody, a kind of cantus firmus. Doesn't this melody sound to you like a medieval vièle?" (Nabokov 1949, 179).

Again, though, the comparisons appear to be after-the-fact, rather than insightful in regard to compositional models. The reference to cantus-firmus technique certainly seems appropriate, the

47 White (1979, 444) suggests that the fugue subject, played by the horns, is itself an inversion of the violin line in the opening scene.

texture having something in common with that of a chorale prelude. Randel (2014, 137) observes that the use of brass timbres in this scene carries echoes of Monteverdi, who also employs a brass sinfonia on the entrance of Apollo at the same point in the story. Stravinsky's reference to the *vièle* is less clear, however. Since Stravinsky was apparently demonstrating this music at the piano when he made these remarks, it is unlikely that he was referring to the tone quality of the solo violin/trumpet combination. The *vièle* itself might well have come to Stravinsky's attention via Reese (1940, 203 and 218).

These framing sections of *Orpheus* embody a different paradigm than those offered by the two other ballets in the Greek trilogy. Though highly expressive, they also work on a level of theoretical abstraction—a tonal space involving the division of an octave according to a particular Greek *tonos*—which is converted into real sound when presented as, at the opening, a descending line that unfolds in a manner reminiscent of a Baroque walking bass. (The descending complementary tetrachords are familiar to us as the expression of lament in so much mid- to late-Baroque music.) But this abstract and (literally) textbook source of 'Greek' influence is not only something inevitable (given the lack of examples of actual music from ancient Greece), but also quite consistent with Stravinsky's overall artistic concept. These modal scales present a somewhat veiled picture of Greece, subtle and far from cliché. We see from his 'program notes' that for the stage set, for example, overtly Greek backdrops would have been unsatisfactory: "...it was Lincoln Kennedy's happy idea to invite the Japanese master Isamu Noguchi, who at least saved us from the cliché 'Greek,' the chlamys, Doric backdrops, and so on" (*Themes and Episodes*, 47).

Agon, the last in the Greek trilogy in collaboration with Balanchine, is essentially a ballet without a plot. More abstract in

conception than its forbears, it is quite devoid of character representation, being a series of abstract dances. Joseph introduces the work in these terms:

Although at least nominally Greek, Agon hardly represents a dramaturgical culmination of what had begun nearly thirty years earlier with Apollo. In almost every way—musically, theatrically, choreographically, even spiritually—Agon, the last of Stravinsky and Balanchine’s epoch-making full-length ballets, stands a world apart from Orpheus and Apollo. (Joseph 2002, 211-212)

As with *Apollo*, though, earlier French culture provided a model—this time in the form of two seventeenth-century books on music, which provided a framework for the dance orderings and metres. Here, though, the parallels with *Apollo* end.

In *Conversations* (19), Craft explicitly indicated a connection of parts of the ballet *Agon* with archaic forms and procedures. In an exchange about *Threni* Craft mentions that some of the *Agon* pieces were modelled from François de Lauze’s *Apologie de la Danse* (1623) and from Mersenne’s music examples of various dance forms—two sources which detail dance practices in the French court of the seventeenth century. In fact, it is well documented that American impresario Lincoln Kirstein, who had founded with Balanchine the Ballet Society in 1946 (subsequently renamed the New York City Ballet), sent the composer a modern edition of the de Lauze manual in an effort to stimulate Stravinsky to compose what, it was hoped, would form the culmination of a trilogy. This manual was published in London in 1952 in a bilingual volume in which the editor also included excerpts from Mersenne’s *Harmonie universelle*, of 1636⁴⁸. The dance types featured in the second and third parts of *Agon*—Saraband, Gaillard, Bransles simple, Gay, and double—are described in the book and exemplified in the music section. With the exception of the

48 Edited by Joan Wildeblood (London: Frederick Muller, 1952).

Sarabande, which in *Agon* occurs before the other forms mentioned, at the start of Part II (yet as the sixteenth dance of Mersenne's collection), Stravinsky's ordering of the dance categories follows Mersenne. The three Bransles, in fact, run consecutively and comprise Part III (whereas three movements separate the Galliarde from the first Bransle).

Joseph (2002, 228-254) has shown in detail how closely Stravinsky must have studied the 1952 edition of de Lauze and Mersenne. He points out that not only the dance metres, but also the melodic patterns and orchestration, influenced Stravinsky as models. As an example, the melody of Mersenne's Bransle Gay is strikingly similar to the opening of that dance in *Agon*. Likewise, Mersenne's mention of guitar and castanets is reflected in Stravinsky's orchestration of this dance. Joseph even suggests that Mersenne's reference to "little sticks of wood, or other matter, ... held in the fingers," prompted the "scintillating tremolos of the xylophone employed in the *Agon* version" (2002, 238-239).⁴⁹

Additional examples of specific historically oriented choices of instrumentation can be mentioned: the use of plucked string instruments, particularly mandolin (Van den Toorn 1983: 413), and, at the start of the Bransle simple, of two solo trumpets (Vlad 1978: 199), an idea derived from an illustration that appears in the de Lauze/Mersenne edition (opposite p. 33, although the 'trumpets' pictured there appear to be shawms or cornettos).

Furthermore, Roman Vlad (1978, 199) refers to the distinction made in the fourteenth and fifteenth centuries between so-called "hautes" and "basses" instruments in the performance of dances,

49 Stilwell (1994, 29-33), by contrast, de-emphasizes the importance of the de Lauze, suggesting that Stravinsky's citing of him might actually constitute a case of deliberate *misdirection*, the term being applied according to "the literary principle of misreading as defined by Harold Bloom."

suggesting that these groupings are discernible in Stravinsky's score in terms of timbral differentiation of sections. He does not elaborate on the possible sources of influence for such procedures, although he does suggest one result of it in the opening *Pas-de-Quatre*, where the internal structure of the movement is largely articulated through such vivid timbral contrast. In fact, this historical division into "high" and "low" instruments was available to Stravinsky through, again, the *Anthologie sonore* series of recordings. Record 5 in vol. I of the anthology consists of French dances of the sixteenth century (*Bassedanse*, *Tourdion*, *Allemande*, *Pavane*, and *Gaillarde*, ending with three *Bransles*). In the notes accompanying the record set, Curt Sachs explains that dances such as these were played at first on "all types of brass, woodwind and string instruments," although strings (both plucked and bowed) increasingly became the norm. Record 16 of vol. II features dances of the thirteenth and fourteenth centuries, and here explicit mention is made of the distinction between low and high instruments. Sachs explains that it applied to tone colour rather than pitch: "low" instruments include bowed viols, for instance, while "high" instruments include drums and winds.

In addition to these matters of scoring, more pre-Baroque archaisms can be detected in the *Agon* dances, and contribute thereby to its pluralistic nature. In reference to the *Pas-de-Quatre*, Van de Toorn (1983, 413) cites such "neo-Renaissance" features as voice-leading procedures at cadence points, with the II-I formula embellished with inflections which recall the "double leading tone" and "Landini cadences" of the fourteenth and fifteenth centuries.

To these features (as well as the general *trecento* quality of the melodic lines in this opening), can be added some points in the largely C major *Gaillarde* where the canonic interplay between harp and mandolin produces intervallic configurations redolent of the sixteenth century. Especially striking are the suspension formulae

seen at bars 172-73. (Example 3.) In this movement, Stravinsky's achieved a sensuous effect that derives in part from his highly imaginative approach to the harmonic drone which accompanies the canons. The delicate lushness of the combination of flutes, solo viola, and solo cellos and basses playing harmonics, produces novel instrumental sonorities and was a particularly imaginative stroke on Stravinsky's part—even though the “drone” principle is undoubtedly another of *Agon's* pseudo-historical ingredients.

Bewildering in its stylistic heterogeneity, *Agon* above all synthesizes history and modernity in creative, often unpredictable ways. Characteristically, though, Stravinsky was far from forthcoming in his acknowledgments of the historical elements. As Joseph points out, after reading a 1958 review of *Agon* which stated that its dances were modelled on those of a French dance manual of the seventeenth century, Stravinsky wrote in the margin, “Too little to be worth to speak about of [sic]—only the names, like Bransle, Galliarde, Sarabande.” This reticence is consistent with his remarks about others among his post-war works but does not square with his ongoing absorption in, amongst other repertoires, Renaissance dance and choral music. These provide a broad context in which to situate *Agon* and others among his partly-serial works. His open admiration of the *Choralis Constantinus* of Renaissance composer Isaac, a work partially edited by Anton Webern, is hardly a coincidence, occurring as it did at these critical years for Stravinsky's gradual adoption of serialism. Yet in *Agon*, as generally in these post-war works, the composer did not fall prey to an ironic academicism. The models, if such they can be termed, provided only a starting point for Stravinsky's ongoing experimentation with sonorities, textures, and of course the serialism that subsequently most preoccupied Stravinsky scholars.

That these reflections of earlier musics in *Agon* are at a heightened level of detail when compared to the much earlier *Apollo* is indicative of the cultural milieu arising from Stravinsky's American surroundings and significantly perhaps, his acquaintances. Yet both ballets represent an underlying vision of Greek culture filtered and transmitted largely through the French Renaissance and early Baroque (the occasional double-leading note cadence notwithstanding)—and it was a vision that clearly appealed to Stravinsky. For Mersenne in particular, respect for antiquity ran deep, and he regarded a knowledge of Greek metres as necessary to mastery of the dance steps of his own time. As Joseph (2002, 235) puts it, Stravinsky's dependence on the melodies given in *Wildeblood* is

critical; for while the temporal divisions of Mersenne's tunes are "French" on the surface, they revert to a deeper Greek wellspring. In this sense, the underlying rhythmic structure of Agon's courtly dances is as Greek as the mythologies upon which Apollo and Orpheus are based.

Apropos early music, the *Canticum sacrum* (first performed in September 1965 in St. Mark's, Venice, and dedicated "To the City of Venice, in praise of its Patron Saint, the Blessed Mark, Apostle"), follows an altogether different trajectory from *Agon*. As Walsh (2015) reminds us, the partial use made in both works of 12-notes rows should not be allowed to obscure the "profound differences" between them. It is the circumstances surrounding the performance of *Canticum sacrum*, its dedication and its connection with the cultural history of Venice (a city to which Stravinsky had long felt a special attachment) that alert us to the profoundly ecclesiastical and structurally all-embracing nature of this work's references to a musical past.

38

I
Fl.
II
III

Mand.
170 171

Arpa
170 171 *ben Marco.*

Piano
170 171 *sempre poco sf*

Timp.
170 171 *secco poco sf*

C. B. II
Solo

I
Fl.
II
III

Mand.
172 173 174 175

Arpa
172 173 174 175

Piano
172 173 174 175
ben tenuto *sim.*

Timp.
172 173 174 175

C. B. II
Solo
**barm.*
sempre fp ben tenuto

* wood's 2nd bass

B & H. 19386

Example 3. Stravinsky, *Agon*, Galliard, bars 170-175.

In *Conversations* (85) Stravinsky carefully defined his interest in Venice's musical heritage:

The "Venetian" music I would like to revive is by Monteverdi and the Gabriellis, by Cipriano and Willaert, and so many others—why even the great Obrecht was a Venetian at one time—not that so much richer and so much closer-to-us period [i.e., the eighteenth century]

The early-music anthologies are indeed rich in selections from this repertoire: *HAM* brought to a wide readership vocal and instrumental works of the Gabriellis, including Giovanni's *Sonata pian'e forte*, which also appeared in Schering 1931.

Certain features of the *Canticum sacrum*, such as its quasi-Venetian orchestration, do indeed suggest an acquaintance with Venice's musical history, while other parallels can be drawn from wider-ranging repertoires. The spare, solemn *Dedicatio*, for instance, features several cryptic echoes of earlier eras: the chant-like quality of the melodic lines, the hints of renaissance-style suspension patterns, the 'under-third' cadential figure in bar 9. The 4/2 time signature is itself noteworthy, as it actually necessitates the notation of a breve in the contrabasso line in bar 3. On the other hand, the alternation of starkly contrasting blocks of music, which provides the basic formal principle in movements I and IV, is not only a Baroque trait, but was surely intended to provide a close technical approximation to the antiphonal effects pioneered in St.Marks itself.

Canticum sacrum does offer one structural parallel with *Orpheus*, in that both include closely related framing movements, the second of which modifies the first through some type of reversal process. But whereas the reversal in the last scene of *Orpheus* involves melodic inversion of the harp scales, in *Canticum sacrum* "Illi autem profecti" is essentially a cancrine version of "Euntes in mundum." Both

the 'harmonic blocks' of the choral/orchestral sections of the outer movements and the vivid contrast they offer with the organ ritornellos—which consequently reinforce the sectional structure—are equally effective in their retrograde version. In addition, the internal symmetry of their structure (A B A B A) is unaffected by the reversal.

Craft (1956, 44) has remarked upon Stravinsky's use of rhythmic patterns which work well in both direct and retrograde forms, in reference to the rapidly repeating sixteenth-notes in the A sections, which propel the music in both directions. (The opposite side of the same coin might be the effect of stillness and non-directionality achieved in the organ ritornellos, in the B sections. Here, the nullifying of metric pulse entailed by the various conflicting rhythmic units among the five parts involves a reduction to a basic rhythmic common denominator—suggestive of the *tactus* in Renaissance polyphony.)

Historical precedents for the technique of retrograde were hardly in short supply. Stravinsky was probably familiar with the example from the Ivrea Codex and with the Guillaume de Machaut rondeau *Ma fin est mon commencement* offered in Reese's *Music in the Middle Ages* (336 and 351-52 respectively; also in Gleason 1942, 81). But it is in the radically extended use made of the retrograde technique (i.e. over an entire movement), and in its novel (perhaps unprecedented) combination with Venetian-style 'antiphonal' contrast, that the startling novelty lies. Craft (1956: 35) has suggested that the cancrine relationship between the outer movements provides a symbolic representation of their texts. Whereas "Euntes in mundum" is in the imperative mode with, naturally, a future time implication, in "Ille autem perfecti praedicaverunt ubique" this future has become the past. Extending the time symbolism, Roman Vlad (1987: 187)

claims that “the concept of time which returns to God, and the concept of finality of the Divine Order that hinted at the repudiation of the chronology of “cause and effect” are invoked. If, indeed, the denial of uni-directional, cause-and-effect chronology were intended, then the analogy with architecture—a spatial, atemporal art form—and more specifically, with St. Mark’s itself, would seem appropriate (both White 1979: 482-83 and Craft offer analogies with the building, though concentrating on dome/movement correspondence).

Also relevant, finally, to a consideration of the *Canticum sacrum* in terms of early music are those works nominated by Stravinsky for inclusion in the concert which premiered it, in a letter from November, 1955. These include the “ricercar for four trombones” by Andrea Gabrieli mentioned earlier, a “Psalm for 5 voices” of Heinrich Schütz, “Motet no. 14” by Gesualdo, and Monteverdi’s *Lauda Jerusalem*. These works (notable for their Venetian pedigree) would, he believed, “effectively situate the *Canticum*.”

The list of points displaying traits of medieval and renaissance music in those works that, like *Agon* and *Canticum sacrum*, form a transition from the neo-classical to the serial phases, can certainly be extended. Several have been indicated by scholars. Hughes (1995), for instance, in considering works dating from the critical years 1952 to 1957, identifies a number of cadential patterns that, to greater or lesser degrees, conform to cadential models intrinsic to earlier styles. Some of the derivations, which are from renaissance (and late-medieval) models, are more speculative than others, his most convincing examples being a set of cadences in *In Memoriam Dylan Thomas*. These are of structural weight through their placement at important divisions in the work (and also meet two necessary additional criteria that he posits, “consciousness and explicitness”). Interestingly, among the works he considers, this is the most serially constructed. Other examples cited occur in the Cantata, the Gigue of

the Septet, and *Three Songs from William Shakespeare*, in addition to *Canticum sacrum* and *Agon*. Hughes (64-66) lobbies for a more integrated approach to analysis of these transitional works, one that simultaneously evaluates their neoclassical components and serial techniques.

It is on this analytical level that the real challenge ultimately lies. Individually, the archaisms that can be traced in these later works of Stravinsky traverse a broad spectrum: “Landini”-type cadences, renaissance voice-leading, Greek and medieval modes, walking basses, echoes of early instruments. To list so many features in a single sentence is to indicate the breadth of his allusions to music of earlier eras, yet also to beg the question of just how such eclecticism is to be assimilated into an account of Stravinsky’s modernistic vision. Naturally, some of these works provide clearer interpretive contexts than others, employing frameworks drawn variously from genre, text, expressive content, external circumstance, and so on (the Mass, *Apollo*, *Canticum sacrum*). It is probably *Agon*, in its combination of plotless abstraction and stylistic plurality, that remains the most intractable of these works, even as its sparkling sound-world delights the listener. But whatever work we consider, for these archaisms to be more than anachronisms we invariably depend on Stravinsky’s ability to transform and reinvigorate. His well known statement on tradition in *Memories and Commentaries* (121) is highly prescient:

Tradition is generic ... it undergoes a life process: it is born, grows, matures, declines, and is reborn, perhaps. These stages of growth and regrowth are always in contradiction to the stages of another concept or interpretation: true tradition lives in the contradiction.

One thing that emerges clearly is that when Stravinsky emigrated to the United States he encountered a unique constellation of scholars, performers, and also fellow composers engaged in the

discussion, discovery, and revival of early musics. Such an environment must have possessed a tremendous latency for this intellectually curious composer, the unquestionably fruitful outcomes of which continue to tantalise the scholar.

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EXPLORING AN UNKNOWN MUSICAL WORLD: THE CASE OF THE GREEK SONGS COLLECTION AT THE DIGITAL GREEK MUSIC ARCHIVE (DIGMA)

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Abstract: Digitisation has been the major innovation that occurred in the turn of the 21st century, widening the scope of research in various fields. The availability of material reshapes the way we see and research and this becomes quite obvious in the case of musicology. A strong example of this is the fact that musical microhistory deriving from the periphery seems to be gaining interest, especially when one places this in a parallel route towards the major music centres that were active during each era. Therefore, we are going to examine a collection of Greek songs currently accessible for those researchers who are interested on the activities of local song composers from the European periphery, available at The Music Library of Greece "Lilian Voudouri."

Keywords: digitisation; musicology; microhistory; European periphery; The Music Library of Greece Lilian Voudouri.

EXPLORANDO UM MUNDO MUSICAL DESCONHECIDO: O CASE DA COLEÇÃO DE CANÇÕES GREGAS DO ARQUIVO DIGITAL DE MÚSICA GREGA (DIGMA)

Resumo: Digitalização tem sido a principal inovação que ocorreu na virada do século XXI, alargando o âmbito da pesquisa em vários campos. A disponibilidade de material reformula a forma como vemos e pesquisamos e isto torna-se evidente no caso de Musicologia. Um forte exemplo disso é o fato que esta micro-história musical provinda da periferia parece ganhar interesse, especialmente quando colocada em uma rota paralela em direção aos centros principais da música ativos durante cada era. Portanto, vamos examinar uma coleção de canções gregas atualmente acessíveis para os pesquisadores interessados sobre as atividades dos compositores de música locais da periferia Europeia, disponível na Biblioteca de Música da Grécia “Lilian Voudouri.”

Palavras-chave: digitalização; musicologia; micro-história; periferia Europeia; Biblioteca de Música da Grécia Lilian Voudouri.

Introduction

Digitisation has been the major innovation that occurred in the turn of the 21st century, an innovation that widened the scope of research in all aspects with the humanities and arts disciplines not being an exception to that. The availability of material that was not accessible before could actually reshape the way we see and research and this becomes quite obvious in the case of musicology. A strong example of this is the fact that musical microhistory deriving from the periphery seems to be gaining interest, especially when one places this in a parallel route towards the major music centres that were active during each era. Therefore, to set an example by the case we are going to examine here, a collection of Greek songs is currently accessible for those researchers who are interested on the activities of local song composers from the European periphery.

In order though for all these to happen (digitisation, preservation etc.) an institution had to be established. The Music Library of Greece “Lilian Voudouri” started functioning in 1995 and operating for the public from 1997 onwards. Its main focus has been Western music and major aspects of Greek music and musical life. One of the main goals that has been set since the first years of function, was to collect, study, research and track material that had to do with the past and present of Greek music. Therefore, a Greek Music Archive started being organized within the boundaries of the Library with an ultimate goal of not only to collect and research but also to ensure that the past and present of Greek music will be rescued from oblivion. By digitizing a large part of the available material and creating a portal (digma.mmb.org.gr) the aim of triggering and enhancing further research on Greek music by musicologists and researchers not only deriving from Greece but also from abroad has been made possible. One also should not neglect a serious concern, which had to do with avoiding quick spoliation and destruction of archival material, something that would have most certainly occurred over the course of years, if the material was not carefully preserved.

Since the role of the Greek Music Archive was clear from the first instant, materials such as books, scores, recordings, photos, programmes, journals, manuscripts and others have been and still are being accumulated for the benefit of researching the Greek musical world. The types and styles of Greek music that are being covered span from Ancient Greek to Byzantine and from Rebetiko, Folk, Popular to Art Music. Moreover, one cannot neglect the amount of archives that has been collected over the years, which now actually consist the main part of the material within the Archive. This collection of rare material grows either through personal donations, purchases from collectors, rights holders and auctions or through constant enrichment with material that comes from various sources.

The latter is the case that best describes the Collection of Greek Songs. This collection is being comprised of approximately 6000 titles, with almost half of them being purchased from a single collector, thus becoming the basis of the collection. This occurred in 1996 during the Library's collection development phase. It's needless to say that the collection still continues to expand with worthwhile material. The other large part of the archival material has been embodied from many different sources (e.g. donations, purchases from flea market and second-hand bookshops etc.).

The unique collection of Greek songs of the Music Library of Greece "Lilian Voudouri" covers a wide range of titles and encompasses both scholarly and popular music expression, given that these compositional styles addressed to a wider audience, which had no special music education. In this way, along with Kokkinos', Napoleon Lampelet's and Mantzaros' lieder are the songs of I. Kaisaris, I. Karantzas and L. Spinellis, and even those of Tsitsanis, Souyoul and Theodorakis. Also, and although this will not be the focus of this text, it is interesting to mention that one can find a similar span and diversity in the philological value of the songs. It juxtaposes the verses of D. Solomos, A. Valaoritis, G. Vizyinos with the lyrics that were used, for instance, in popular and rebetiko songs.

In order to fully understand and be able to judge the musicological importance of this material it seems useful to proceed to a brief historical overview that could help place these types of music within the frame of Greek music life and history.

Historical Overview

The Library's collection of Greek songs is comprised of music that has been described as "popular" in the broader sense of the term, meaning music that was published for recreation and amusement. In this extend one could even include those art songs that appeared in the sheet music format. Here it seems useful to remind the entry for the term "popular music" as it has been defined in the Grove Dictionary of Music and Musicians: "A term used widely in everyday discourse, generally to refer to types of music that are considered to be of lower value and complexity than art music, and to be readily accessible to large numbers of musically uneducated listeners rather to an elite. It is, however, one of the most difficult terms to define precisely. This is partly because its meaning (and that of equivalent words in other languages) has shifted historically and often varies in different cultures; partly because its boundaries are hazy, with individual pieces or genres moving into or out of the category, or being located other inside or outside it by different observers" (Middleton and Manuel 2001). This seems, more or less, describing the case with Greek popular music.

During the years of the Ottoman occupation in mainland Greece, Heptanisa (Ionian islands) have been the only part of the Greek world of that time that remained unoccupied by the Ottomans and thus had the opportunity to be in connection with the West. For most of the time before the creation of an independent Greek country that occurred after the War of Independence that broke out in 1821 along with the help of great powers such as the British, the French and the Russians, the Ionian islands were under an English or French command. In the field of music one can observe that there has been a close connection with the Italian popular element that was mainly expressed in the genre of melodrama. Operatic companies toured in

the Ionian Islands and audiences had the opportunity to listen to popular arias from Italian operas.

After the establishment of an independent Greek country in 1830, these companies initiated their sets of tours around mainland Greece and mainly in cities that had a strong bourgeois community. These were cities like Patras and Syros. Athens, on the other hand, was small and poor, with limited artistic life¹. However, with the enthronement of King Otto and the establishment of various cultural societies something seemed to be changing. Cultural life was enriched and Italian companies started visiting Athens as well. Here we need to mention the effort that was being asserted by bourgeois circles for a Westernization of Greek society and especially from the circles around the King's court, whom they wanted to establish a more central European touch in the Athenian life.

During the final decade of the 19th century, one can observe the influence Italian *bel canto* had in Greek songs that were being composed at the time. Composers, of Ionian descent mainly, such as Napoleon Lambelet, George Lambelet, Dionysios Lavrangas, Dimitrios Rodios, Nikolaos Kokkinos wrote songs that were meant to become popular. These were published and used for entertainment reasons.

In the first decades of the 20th century and mainly during the Athenian bell époque period (1900-1920), a new song genre is being created, the "Athenian Song." The two main types are an Italian *canzonetta*-style and the "kantada," which is really a polyphonic song. In those years a new type of entertainment, "The Athenian Varieté," becomes extremely popular. Composers like Theophrastos Sakellarides, Grigoris Konstantinides, Lola Votti, Attic (Kleon Triantafyllou) are the main representatives of this new genre that

1 For more information see also Baroutas (1992).

mixes music, song and theatrical sketches. The songs included in this type of *variété* were deeply influenced by western equivalents. This meant that audiences had the opportunity to be introduced in European popular music (a mixture of cabaret music, operetta and *variété* music). In this case, publications of foreign songs in sheet music helped audiences receive them more easily.

In later years, the musical elements introduced in the Athenian *Variété* were described as “light” or even “European music” in order to significantly differentiate from other genres such as *rebetiko*, the urban songs of lower class people, a genre that was heavily influenced by the populations arriving to Greece just after 1922 and the Minor Asia destruction. This “light music” was comprised of songs in styles that were only found in foreign countries and in genres such as tango, fox trot, rumba, etc. Greek composers started writing their own melodies on patterns that did not have much resemblance to folk or other popular music types. Light music moved from the theatre to nightclubs, bars and *tavernas* with music. At that time *rebetiko* music was an outcast genre and only people from lower social class listened and entertained themselves to it. This of course changed in due course.

On this occasion, a particular mention should be made to the genre of Greek operetta. Along with the Athenian *Variété*, operetta was one of the most popular types of music. It is a fact that the *variété* was eventually taken over by the operetta world and during the 1920s operetta conquered and extinguished it. However, its reign was meant to be short. Its predominance started around 1916 and the nadir point seems to be around 1928. It has been estimated that around 1000 operettas have been composed through the years of its popularity. The most popular songs deriving from these operettas were heard in unconventional places such as tavernas and these were printed in sheet music form.

From 1930 onwards one can observe a significant change. Now music could be diffused through the new technologies available. The new developments in discography brought a change to the music world. In Greece the new radio station that was established in 1938 helped in the most positive way. Of course, sheet music was still available and that continued for many years to come. The composers that culminate are Mihalis Souyoul, Kostas Giannidis (the alter ego of the art music composer Yannis Konstantinidis), Spyros Ollandezos, Iosif Ritsiardis and others.

New types of songs and music appear and are now vividly described as “songs of wine and tavern”. These are moving towards and approaching music genres that mainly express lower classes in Greece. Moreover, from the '40s and during the German Occupation and Civil War years, popular song of all types deteriorates. In 1949, the composer Manos Hadjidakis gives a talk and officially puts rebetiko on the map. Composers of that time, and especially those writing light music, had to move towards a new genre called “arhontorebetiko” (a mixture of rebetiko music but with lyrics and meanings that did not hesitate with the ones used in authentic Rebetiko, which were thought to be decadent).

During the next years and from 1950 and onwards, one can see that light music (kantades, fox trot, tango music, etc.) suffer a heavy blow and popular music separates in more than one branches. This means that types like: *laika* (urban popular music) and *elafrolaika* (light urban popular music; music where bouzouki is the primary instrument) are being introduced. Even art music composers venture to write these types of music, for example Mikis Theodorakis, Manos Hadjidakis and others.

Technical Aspects

After giving a brief but hopefully comprehensive timeline of what one can comprise within the bounds of the term "Greek song" it is time to return to the specific project in discussion. Music Library of Greece realized the programme *Creation of a complete unit of documentation and promotion of Greek music*, funded by the operational programme "Information Society" (3rd European Community Support Framework, 2000–2006), which was later on broadened and enriched by new collections and material thanks to the donation by the National Bank of Greece. Originally, within the frame of this project, the archives of the composers Mikis Theodorakis, Emiliós Riadis, Georgios Poniridis, Frank Choisy, the archive of Nileus Kamarados-Nikolaos Vlachopoulos, a part of the Manuscript Collections and of Greek Songs that belong to the Library, as well as the Domna Samiou Archive which belongs to the Domna Samiou Greek Folk Music Association were digitized and are available on the Internet free of charge. On a later stage, the archive of Dimitrios Lialios, the collections of concert programmes and cultural events, Greek musical periodicals, books on Byzantine music and vinyl records were added. At the same time, concert programmes from the Mikis Theodorakis Archive were digitized and added to that collection, whereas the processing of the Greek songs collection was completed. These digitization programmes gave the Library the opportunity to digitize thirteen out of twenty nine of its main archives and collections.

The first period of the digitization programme ran for 18 months from September 2005 to February 2007 and the digitized documents amounted at 264.385. The second period ran for three years from January 2009 to December 2011 and the digitized documents amounted at 66.000. At this time this significant thematic documentation of Greek music includes more than 330.000 digitized

documents of unique cultural value; they are the source for every researcher interested in Greek music. These items can be utilized for the interdisciplinary creation of cultural services, always subject to intellectual property law.

The selection of the material was based on four major criteria: 1) user's interests and needs, 2) making full use of already existing metadata, 3) the opportunity to digitize material that would not have been possible otherwise (e.g. hiring a specialist such as a sound engineer), 4) material that was or would have been free of intellectual property rights near the completion of the project or material that we had the permission of the composer to offer it as free web content.

The Collection of Greek songs fulfilled all of the factors mentioned above and naturally became part of the material that was digitized. This collection was already catalogued and had a certain amount of metadata available. These were: name of the composer, song title, title of the major work or collection that each song was deriving from, lyricist, place of publication, year of publication and publisher. These metadata existed in excel and access files. During the digitization period musicologists that were hired within the framework of this project, worked on enriching the available metadata, correcting possible errors and adding metadata on a specifically-build database. Due to the fact that a certain amount of metadata already existed there was a decision to build a custom-made schema of metadata elements. However, soon enough it was clear that this schema, although it may suit the needs up to a certain point, had major drawbacks in terms of interoperability. Therefore, a new decision was made to change this and use Dublin Core metadata Element Set instead.

Portal

The outcome of this digitization process has been deposited in a new portal that was created in 2008. The acronym of it is DIGMA (Digital Greek Music Archive) and one can find it at <http://digma.mmb.org.gr>. All the material that has been digitized appears in this portal, according of course intellectual property laws within the European Union. Music works that are on the public domain appear in full in the portal along with the appropriate metadata. As far as the Collection of Greek Songs is concerned, the ones that are in the public domain amount to 325 and these are offered as free web-content that can be viewed and printed. The remaining digitized songs, that lead up to 6000, are being revealed in the portal yearly as they come out of the intellectual property law restrains. Furthermore, from January 2010, and in order to promote research on this material, a decision has been made to offer all metadata and first page images of these songs that are still copyrighted. It's important to mention that quite a few parts of the portal have already been translated in English and there is a constant effort towards translating the full amount of metadata and information.

Case Studies

In order to make things more clear, we provide five case-study examples deriving from this specific digitized collection that shows the diversity of it.

Μιχάλης Σουγιούλ [Michalis Souyoul]: Αθήνα και πάλι Αθήνα [Athens again and again]²

Michalis Souyoul (1906-1958)³ was born in Turkey, in the Aydin region at Asia Minor in 1906 and his real name was Michael Souyioltzoglou. His family migrated to Athens in 1920 where he began to work as a self taught pianist and few years later in 1925, he created his own jazz orchestra and started to work as a professional musician. He died in Athens in 1958. He was one of the creators and main representatives of the “arhontorebetiko” genre, songs with western instrumentation and popular melodies that resembled rebetiko music. The main feature, and major difference with rebetiko songs, was that they used violin instead of bouzouki. He wrote more than 700 songs of tango, waltz, even songs of patriotic sentiment, with most of them having great commercial success. He also composed music for 45 theatrical plays and 10 films. During the Second World War many of his songs were presented with lyrics referring directly to the war condition, sometimes in a mocking way sometimes in a more sentimental in order to raise the morale of the people.

According to the metadata given this specific song is a waltz, which was written during the Second World War for the theatrical play (*variété*) *Fouskodendries* and sung first by Sophia Vembo, a great artist of the era. The lyrics were written by Mimis Traiforos who was a famous writer, director and poet and also Sophia Vembo's husband. The theme of the song is Athens, the capital of Greece praising the city for its beauty and grandiose. The song was published in 1942 and first recorded in 1949. The cover has been edited by the copyist

2 Accessed on 29/1/2015 <http://digma.mmb.org.gr/Item.aspx?kkt=GRSON000004029>.

3 For more information see Tsabras (2005).

Richardos Fretsas, a name familiar to all those who deal with this era and to whom we are going to refer to later on as well.

Γιώργος Μητσάκης [Giorgos Mitsakis]: Δεν είμαι εγώ ο Γιώργος σου [I am not your favorite George anymore]⁴

Giorgos Mitsakis (1921-1993) was born in Turkey and more precisely in Istanbul (Constantinople) in 1921.⁵ He came in Greece with his family in 1935 and after various wanderings in different cities (Cavala, Volos, Thessaloniki) he was finally settled in Piraeus just before the Second World War started in 1939. Piraeus was the centre of the rebetiko scene at that time. There he collaborated with other famous Greek composers of rebetiko such as Vassilis Tsitsanis and Apostolos Chatzichristos. He stood out as a great composer, singer, bouzouki player and lyricist. He died in Athens in 1993. He wrote music and lyrics for many songs and he was one of those who pioneered the development of the song from Rebetiko to “Laiko”, a more popular and in a sense a more acceptable form of bouzouki music. Mitsakis holds an unusual but interesting record: he was the first ever rebetiko musician who appeared with his band in a film in 1952, the film was *Ο Πύργος των Ιπποτών* [The knights tower]. The song that is discussed here was written in 1951 by Giorgos Mitsakis and the lyrics also belong to him. The premiere was given by Nikos Gounaris, a famous singer and an interesting choice for the time since the song was a zeimbekiko and Gounaris was not a famous rebetiko singer. On the contrary, this was a crossover choice for the time. The piece was published in 1951 and first recorded at the same year. The theme of the song is probably autobiographical and we could say that describes an old love. This version of the score presented here is a

4 Accessed on 29/1/2015 <http://digma.mmb.org.gr/Item.aspx?kkt=GRSON000002701>.

5 For more information see Mitsakis (1995).

transcription for voice and accordion and the cover has been edited by the copyist Minos.

Παύλος Καρρέρης [Pavlos Carrer]: Το φεγγάρι [The Moon]⁶

Pavlos Carrer (1829-1896)⁷ was one of the most important art music composers of the 19th century and his output was mostly comprised of operatic works. He was born in Zante, with his musical education taking place in Zante, Corfu and later on in Milan. Italy has always been an accommodating destination for his operas and quite a few of his premieres took place there. In 1857 he returned to Zante remaining there for the rest of his life. Heavily influenced by the Italian style of the time he composed in a *bel canto* style, without however abolishing any of those individual Greek elements. He dealt with subjects deriving both from the recent and ancient Greek past, establishing a non-systematic but sustainable Greek idiom and adding a Greek flavour to quite a few of his works, and also dealt with subject that were common to the operatic styles of his time (for instance, he composed a *Maria Antonietta*, an opera titled *Dante e Bice*, etc). The mentioned art song that derives from the collection of the Music Library of Greece is for a soprano voice range. The lyrics are written by A. Manousos and the score has been published by the Veloudios Publishing House, as one can extract from the metadata given. The song is being published in a series titled "Ανθοδέσμη Ελληνικών Μελωδιών" [Bouquet of Greek Melodies] where a bulk of Greek art songs has been published for a number of years.

6 Accessed on 29/1/2015 <http://digma.mmb.org.gr/Item.aspx?kkt=GRSON00000011>.

7 For more information see Xepapadaku (2003) and Leotsakos (2003).

Νικόλαος Κόκκινος [Nikolaos Kokkinos]: Τα ευζωνάκια μας [Our Evzones]⁸

Nikolaos Kokkinos (1861-1920)⁹ was a composer mainly of popular songs. Although he was recognised as one of the most talented Greek composers of popular music of his time, the fact is that he did not have a proper musical education, something that he was attempting to disguise under his unquestionable talent. He organised choirs and musical bands that performed regularly around Athens and other cities in Greece and abroad. He died in Istanbul after a heart failure he suffered while being on a performance tour. The above mentioned song it could be easily described as a national-patriotic work. Currently, the Evzones are the elite army corps which function as a Presidential Guard. Historically though they refer to the light infantry units that served in the first organised Greek army battalions upon the newly established Hellenic Republic in 1833. Evzones have been considered (and still are) as an iconic figure of the Greek Army. The reference on them in this song has to do with the expeditions of the Greek Army during the first decades of the 20th century. Unfortunately, there is no indication about the exact date of this song and to which of all the wars that Greece was involved at refers to. During that period, Greece was involved at the First and Second Balkan Wars (1912-13) and later on on the First World War (1914-1918) and the Asia Minor expedition (1919 till after the death of the composer). The lyrics are by D. Galanos and the score has been published by Georgios Fexis Publishing House.

8 Accessed on 29/1/2015 <http://digma.mmb.org.gr/Item.aspx?kkt=GRSON000000217>.

9 For more information on N. Kokkinos see Kalogeropoulos (1998b, p. 199-201).

Γιάννης Βελλάς [Giannis Vellas]: ήρθες αργά στο δρόμο της ζωής μου [you came late to the pathway of my life]¹⁰

One of the most thriving and flourishing genres that appeared in the Greek song era was tango songs. An idiom that was targeting the upcoming bourgeois Greek, mostly Athenian, society presented as with hundreds of songs that were following the Argentinian dance genre. G. Vellas (1910-?)¹¹ was a self-made musician with not much of a theoretical background although he received some lessons after he begun his professional career. He formed one of the most successful guitar groups in the 1930s and started composing tunes that were actually transformed into songs by some of his apprentices. He composed over 250 songs with many of them being in the tango idiom. He also wrote music for films and *variété* theatre. This particular song that was published in 1946 was one of his biggest hits and it is still performed. The lyrics have been written by K. Kofiniotis and the song has been published by Andreadis-Nakas publications in Athens. An interesting historical fact that one comes across in quite a few of these scores, and derives from the metadata, is the name of the music copyist. Richardos Fretsas was probably the most famous copyist and has copied the music by most living Greek composers of his time. Unfortunately, the archival material from his laboratory has never been revealed although there are many urban legends about it. Fretsas used to also copy works that were not destined to be published but were used as performance material.

10 Accessed on 29/1/2015 <http://digma.mmb.org.gr/Item.aspx?kkt=GRSON00000523>.

11 For more information on Giannis Vellas see Kalogeropoulos (1998a, p. 352-353).

Final Remarks

The Greek Songs Collection at the Digital Greek Music Archive is only a small portion of what actually is contained at the portal. We chose to discuss this part of the archival material though, because we believe that this actually describes best the timeless and diachronic aspect of it. In other words, we picked digital material that shows the wealth of a genre described in the most generalist way as "Greek Song" although we have clearly shown with the five case studies that were presented in brief the diversity of this material. Music that has been composed and published for almost one century in the form of sheet music had to be preserved and delivered to those who want to know more. The Greek Songs Collection at the Digital Greek Music Archive was designed as such. To help preserve, disseminate and present to the world something that most did not know. It is now in the hands of researchers and music lovers to turn a fresh eye on it and place it in its rightful place in the European music history.

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A MÚSICA: SUA REPRESENTAÇÃO E RECUPERAÇÃO SOB O FOCO DA CIÊNCIA DA INFORMAÇÃO

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Resumo: Este artigo pretende trazer uma reflexão, a partir de uma breve revisão da literatura da CI, sobre a questão da representação e recuperação da informação musical (IM) – a obra “sonora” ou os documentos musicais – a partir das três perspectivas – subjetiva, objetiva e interpretativa – de Alexander McLane (1996), que publicou o primeiro review sobre o tema em uma destacada publicação internacional da área; e das sete facetas propostas por J. Stephen Downie (2003) para a informação musical, cada uma desempenhando os seus papéis no domínio da recuperação dessa informação que são: pitch, temporal, harmônica, timbral, editorial, textual e bibliográfica. Discute também a complexidade da elaboração de um conceito de IM e suas possibilidades de recuperação, mas também o que garante o sucesso dessa recuperação: o usuário.

Palavras-chave: informação musical; representação; recuperação; estudo de usuários.

MUSIC: ITS REPRESENTATION AND RETRIEVAL UNDER THE FOCUS ON INFORMATION SCIENCE

Abstract: This article aims to bring a reflection from a brief literature review of the CI on the issue of representation and retrieval of musical information (IM) – the work "noise" or musical documents – from three perspectives – subjective, objective and interpretive – Alexander McLane (1996), who published the first review on the subject in a leading international journal in the area; and the seven facets proposed by J. Stephen Downie (2003) for musical information, each playing their roles in the field of information retrieval that is pitch, temporal, harmonic, timbral, editorial, textual and bibliographical. Also discusses the complexity of the development of a concept of IM and its resilience, but also ensuring the success of this recovery: the user.

Keywords: music information; representation; retrieval; user studies

Introdução

Tendo se iniciado no começo dos anos 60, prolongando-se até hoje, as questões acerca da natureza, manifestações e efeitos dos fenômenos básicos - a informação, o conhecimento e suas estruturas - e processos (comunicação e uso da informação) tornaram-se os principais problemas propostos pela pesquisa básica na Ciência da Informação (CI). Incluem-se tentativas de se formalizarem as propriedades da informação pela aplicação da teoria da informação, da teoria das decisões e outros construtos da ciência cognitiva, da lógica e/ou da filosofia; várias formas de estudos de uso e de usuários; formulações matemáticas da dinâmica das comunicações (como a teoria epidêmica da comunicação); ricas análises em bibliometria e cienciometria, pela quantificação das estruturas do conhecimento (como a literatura e a esfera científica) e de seus efeitos (como as redes de citações), etc. Após a Segunda Guerra, surgiu a CI, embora o seu

escopo neste momento limitava-se apenas aos sistemas de recuperação. Este movimento em prol da recuperação da informação deveu-se a uma revolução científica e tecnológica aliada à explosão informacional ocorrida no período, o que desencadeou um grande crescimento nas técnicas de tratamento da informação. Nesse contexto, em 1945, o cientista americano Vannevar Bush propôs a MEMEX para auxiliar a memória e guardar conhecimentos além de possuir a capacidade de associar ideias (Saracevic 1996).

A CI é a disciplina que investiga as propriedades e o comportamento da informação, as forças que governam o fluxo de informação e os meios de processamento da informação para uma excelente acessibilidade e usabilidade. Preocupa-se com o corpo de conhecimento relacionado à origem, coleta, organização, armazenagem, recuperação, interpretação, transmissão, transformação e utilização da informação. Esta área de conhecimento inclui a investigação da informação representada pelos sistemas naturais e artificiais, o uso de códigos para a transmissão eficiente da mensagem, o estudo de dispositivos de processamento de informação e tecnologias como os computadores e seus sistemas de programação (Borko 1968).

Além disso, a CI possui componentes da ciência pura que investiga o sujeito sem considerar a sua aplicação e, da aplicada que desenvolve serviços e produtos. A Biblioteconomia e a Documentação são aspectos aplicados da CI, as técnicas e processos pelos bibliotecários e documentaristas. Também tem o objetivo de prover um corpo de informação que conduzirá o aperfeiçoamento em várias instituições e procedimentos dedicados à acumulação e transmissão do conhecimento (Borko 1968).

Para Belkin (1980), a informação é uma mensagem propositadamente estruturada por um gerador e resultante da decisão deste de comunicar determinado aspecto de seu estado de

conhecimento, isolando-o e modificando-o conforme sua intenção. Essa estrutura comunicável vai compor o corpo de conhecimentos a que receptores em potencial têm acesso, e que ao reconhecerem uma anomalia em seu estado de conhecimento, convertem-na numa estrutura comunicável (a pergunta), usando-a para recuperar do corpo de conhecimentos o que é apropriado para solucionar a anomalia, decidindo se está suficientemente resolvida – incerteza reduzida ou eliminada. Além disso, a informação requer processos cognitivos para a compreensão da mensagem comunicada e torna-se meio pelo qual o indivíduo pode conhecer a realidade por meio das suas experiências.

Dervin (1977) afirma que, enquanto o indivíduo desloca-se através do tempo e do espaço e vivencia suas próprias experiências, é a informação o elemento que lhe permite conhecer a realidade. Portanto, é ela e somente ela que lhe permite caminhar com segurança e competir com seus semelhantes em condições de igualdade. Isto significa que a informação descreve a realidade, e ao fazê-lo, acentua a interação entre o indivíduo e o ambiente em que este está inserido. Também considera três níveis distintos de informação, o primeiro diz respeito à realidade externa do indivíduo; o segundo constitui o repertório subjetivo: ideias, estruturas ou imagens apreendidas do ambiente externo pelas pessoas; e o nível 3 é a junção dos níveis 1 e 2 e consiste na forma como cada um lida com elas para consolidar seu processo decisório.

No contexto da Ciência da Informação, o termo "representação" carrega consigo um significado muito próprio pertencente às pesquisas dessa área que envolvem a organização da informação. Representação significa a criação de dados sobre as características descritivas como, por exemplo, a catalogação, e as temáticas como, por exemplo, a indexação dos recursos de informação.

Catalogar, conforme é discutido na literatura da CI, é realizar uma descrição bibliográfica, ou seja, é uma referência precisa do documento por meio da análise temática da sua informação identificando sua localização nas prateleiras de uma biblioteca (seja físico ou online). Indexar é atribuir um ou mais descritores que podem ter ou não conexões entre si com o intuito de descrever o conteúdo de um documento. Esses descritores são conhecidos como metadados.

Para compreender a definição deste termo – metadado – faz-se necessário entender o que é um dado, já que a dificuldade começa na dúvida se o termo é singular ou plural (ARMS, 2000). Dado é o termo geral usado para descrever o conteúdo que é codificado em formato físico ou digital. Por sua vez, metadados são dados sobre esses dados e podem ser (i) descritivos – informações bibliográficas, (ii) estruturais – formatos e estruturas, ou (iii) administrativos – direitos, permissões e outras informações utilizadas para gerenciar o acesso. A diferença entre dado e metadado depende, muitas vezes, do contexto em que são empregados. Um exemplo de metadados são os registros de catálogos ou resumos. No caso dos dados, um bom exemplo são os registros de catálogos *online* ou em bancos de dados de resumos.

No campo da Música, os metadados são divididos em estruturais e descritivos. Os metadados estruturais descrevem os aspectos intrínsecos da música, tais como a altura, o ritmo e a harmonia. Percebe-se que os trabalhos que se dedicam, principalmente, à proposição de sistemas de recuperação da informação musical são voltados aos metadados estruturais, como relatado por Fu *et al* (2011). Os metadados descritivos qualificam os documentos musicais com os atributos¹ bibliográficos no intuito de

1 Há dois conceitos na Ciência da Informação: atributo e valor. Atributo é entendido como o campo que descreve as características de um objeto como título, autor etc. e valor é a especificação do objeto nesses campos como, por exemplo, Invenção nº 1 (título), Johann Sebastian Bach (autor) etc.

catalogá-los ou registrá-los em bancos de dados. Aqueles que envolvem a catalogação dos documentos (incluindo outros formatos) musicais, usam esse tipo de metadado, como é visto nas pesquisas de Assunção (2005), Castro (2013) e Pacheco (2012).

Além desses tipos – estruturais e descritivos – considerados “metadados musicais” por Lee e Downie (2004), eles também sugerem outros dois intitulados “metadados contextuais” que são os relacionais, dados sobre as relações entre os itens (criados artificialmente ou construído socialmente) com outros itens musicais, isto é, gênero, indicações de similaridade, etc. e os associativos que são os dados associados com outras obras, mídias ou eventos, isto é, utilizados na TV, em filmes ou comerciais e eventos especiais etc.

A música é tratada na CI como informação que pode ser representada com sua origem e especificidades. Uitdenbogerd et al. (2000), Selfridge-Field (1997), Baumann, Pohle e Shankar (2004) e outros pesquisadores, defendem que a música necessita de mais de uma forma de representação para que possa ser bem compreendida e identificada. Byrd (2007) vai mais além, afirmando que essas representações devem ser colaborativas, necessárias e suficientes para garantir a sua formalização como informação musical passível de tratamento, recuperação e disponibilização aos usuários. Há consenso na comunidade científica de que a música possui formas básicas de representação capazes de, em conjunto, identificarem uma obra musical. Essas representações básicas são: (i) o áudio, (ii) a notação baseada em eventos temporais, e (iii) a música anotada (Figura 1).

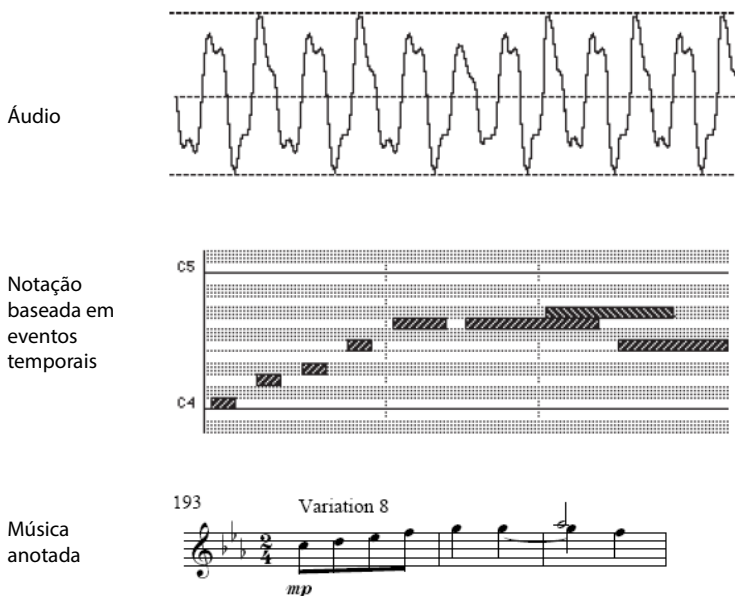


Figura 1: Representações básicas da música. Fonte: Byrd (2007)

A música pode ser descrita pelos sinais analógicos (sinais naturais gerados pela natureza ou produzidos pelo homem) ou digitais (sinais gerados artificialmente para a forma binária) e que representam aquilo que se ouve. Como forma de representação, o áudio possui duas características interessantes. A primeira delas é a capacidade de expressar a mensagem contida num objeto musical, conseguindo traduzir fielmente quase todo tipo de música compreensível à mente humana. Uma segunda característica do áudio é a sua falta de estrutura, enquanto esquema de representação, já que as informações armazenadas são ondas senoidais e harmônicos que compõem a música.

O segundo tipo de representação para a música é a notação baseada em eventos temporais que são instruções compreensíveis por sintetizadores² para produção artificial de sons (ou seja, não são sons recuperados da natureza, mas sons novos, gerados a partir do próprio sintetizador pelo uso de técnicas de amostragem) relativos ao objeto musical. Por ser um conjunto de instruções relacionadas à produção sonora, essa forma de representação possui expressividade e estrutura. No caso da expressividade, pode-se considerá-la menor do que no caso do áudio, uma vez que sintetizar sons como a voz humana, por exemplo, ainda é uma realidade distante. Em termos de estrutura, a notação baseada em eventos temporais também deixa a desejar, uma vez que não consegue representar todas as facetas da música, tais como o aspecto gráfico (partitura) e nem mesmo alguns aspectos lógicos como, por exemplo, a diferença entre um Fá sustenido em relação a um Sol bemol. Portanto, diz-se que essa representação é semi-estruturada, por não conseguir armazenar todos os atributos da música, e semi-expressiva, por não conseguir expressar qualquer tipo de música³.

A terceira forma de representação musical refere-se à música anotada, que é uma notação complexa e com uma generalidade estrutural bastante significativa. Segundo Selfridge-Field (2000), a notação CMN sobreviveu ao longo dos séculos por causa da sua flexibilidade e habilidade em comunicar as intenções do compositor. Apesar de não ser capaz de expressar fielmente qualquer tipo de música como, por exemplo, as músicas eletrônicas, a música anotada

- 2 Sintetizadores são equipamentos capazes de converter outras modalidades de energia em energia sonora, por um processo conhecido como síntese sonora. Como exemplo de sintetizador analógico, pode-se citar o Dynamophone (Serra, 2002, p. 26-27). Sintetizadores mais modernos são digitais e geralmente são contidos em placas de som de computadores pessoais.
- 3 Por exemplo, num som sintetizado é possível representar facilmente a melodia de uma música, mas é difícil representar essa mesma música sendo executada por diferentes músicos.

é uma representação que prioriza a legibilidade, possui uma sintaxe que visa economizar espaço para descrever as músicas e permite a reprodução de textos musicais por qualquer pessoa que seja capaz de compreender esse tipo de notação.

Byrd (2007) elaborou um gráfico (Figura 2) para expressar a relação entre a completude de expressividade musical e a generalidade estrutural dessas três formas de representação musical.

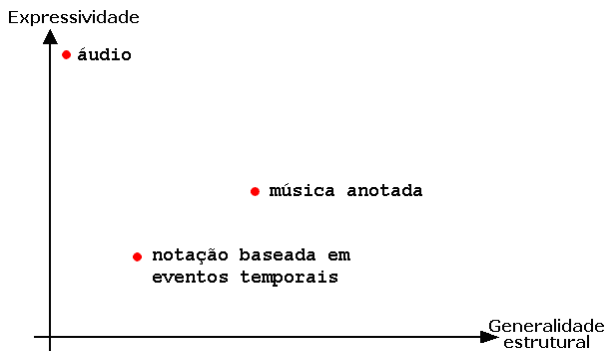


Figura 2: Completude de expressão e generalidade em representações musicais. Fonte: Byrd (2007)

A completude de expressividade refere-se a quanto de expressão (para qualquer tipo de música) um determinado tipo de representação contém. A generalidade estrutural refere-se ao quanto a representação consegue se aplicar a qualquer tipo de música. Portanto, o áudio é a representação de maior expressividade para qualquer tipo de música, enquanto que a notação simbólica consegue representar uma quantidade maior de músicas, mais especificamente músicas clássicas, jazz e outros estilos populares de música ocidental. Como nenhuma dessas representações isoladamente consegue absorver toda a expressividade e estrutura de qualquer tipo de

música, Byrd (2007) sugere a utilização conjunta dessas três representações para garantir a correta representação e individualidade dos objetos musicais.

A “recuperação” da informação na CI já é uma área de pesquisa autônoma com diversos materiais bibliográficos publicados sobre técnicas e modelos. Em 1951, Calvin Mooers criou o termo *information retrieval* (recuperação de informação) baseado nas seguintes questões: 1) como descrever intelectualmente a informação; 2) como especificar intelectualmente a busca e; 3) que sistemas, técnicas ou máquinas devem ser empregados. De acordo com Saracevic (1996), a partir dessas questões emergiram os estudos teóricos e experimentais sobre a natureza da informação, a estrutura do conhecimento e seus registros, o uso e os usuários que levou às pesquisas sobre o comportamento humano frente à informação; a interação homem-computador, com ênfase no lado humano da equação; relevância, utilidade, obsolescência e outros atributos do uso da informação juntamente com medidas e métodos de avaliação dos sistemas de recuperação da informação; economia, impacto e valor da informação, entre outros.

A informação musical é um tema de interesse para uma comunidade de pesquisa interdisciplinar que envolve músicos, bibliotecários, programadores, empresários, entre outros, para fins comerciais e sociais. Sua organização e representação apontarão funcionalidades importantes para a recuperação de música. Isso ocorre porque a maioria dos usuários finais só estão interessados em certos tipos de música. Assim, a representação da música em um sistema de organização e representação vai capacitá-los a encontrar a música de seu interesse. O gerenciamento da informação musical precisa considerar que os diferentes tipos de música contêm

propriedades diferenciadas e devem ser classificadas em grupos distintos (Downie 2003; Ku *et al* 2011).

A discussão da relação entre música e informação remonta da década de 1950 e os projetos de sistemas que codificam a música para computadores têm sido implementados desde o início da década de 1960. Estudos como o número especial do *The Journal of Aesthetics and Art Criticis*, de 1959, discutiram certas características da música – sua estrutura e harmonia – do ponto de vista da teoria da informação (McLane 1996).

Entendendo, então, o conteúdo musical como multifacetado e a existência de várias representações, a música, embora escrita originalmente por um compositor na forma da notação simbólica, só se manifesta quando é executada e apresentada a uma audiência em formato de áudio. As várias modalidades, próximas à simbólica e à aural, garantem a informação e contribuem para o modo como a música é transmitida e experienciada como, por exemplo, a informação visual dos videoclipes, a informação textual dos metadados e das letras e a informação da comunidade social sobre escuta e comportamento dos ouvintes. Estas representações e fontes de informações complementares em várias modalidades tornam o conteúdo de música multimídia em vez de um simples sinal de áudio. Além disso, a maneira como a música é experienciada, é fortemente guiada por fatores afetivos e subjetivos dependentes do contexto e dos usuários.

As três perspectivas da Informação Musical

A Informação Musical (IM) é considerada, para McLane (1986) como texto (notação musical) e como áudio (som), pois: (i) a música como uma arte temporal enfrenta o problema de deixar de existir

quando a *performance* é concluída. Para isso, faz-se necessário providenciar instruções para suas futuras recriações que, na sociedade letrada, tem historicamente tomado a forma de registros escritos; e (ii) como música envolve os sons tornando-se mais complexa, esses tornam-se difíceis de descrever em linguagem humana ordinária, suas partes separadas requerem grande sincronização, e surge a necessidade de uma linguagem artificial para formalizá-la e simbolizá-la para transmitir as características dos sons e suas relações no tempo.

Por causa desta natureza representacional da IM, o conceito de preservação musical desde o final do século XIX adquire outras dimensões advindas das tecnologias da gravação do som, pois, para McLane (1996), incluem a representação de música que envolve a armazenagem de sua partitura e *performance* gravada e a possibilidade de se produzir eletronicamente um trabalho musical, o qual pode ser gravado ou registrado sem o benefício da partitura ou da *performance*.

A notação musical, mais conhecida na literatura internacional como *Common Practice Music Notation* (CMN), representa a IM partindo de um sistema de símbolos da música ocidental de mais de 400 anos. Padronizada para os músicos, serve para o compositor instruir e orientar a execução da sua obra musical. No entanto, possui algumas exceções: (i) alguns instrumentos musicais podem ter suas próprias notações customizadas, conhecidas como tablaturas, as quais proveem uma exibição visual única para seu método de produzir notas e poderia não fazer sentido para outros instrumentos; e (ii) muitas formas de anotação de música não são feitas por compositores para fins de *performance*, mas por transcritores como um meio de preservar a música que foi executada.

A notação CMN foi concebida para servir de registro de ou prescrição para as ações tomadas por músicos, a fim de produzir sons

e não para ser um relato completo de tudo que é audível em uma *performance*. Para McLane (1996), a principal limitação da CMN é a ausência de qualquer notação para as qualidades dos sons, como o timbre, além das instruções verbais colocadas diretamente na partitura. Essas instruções podem ser gerais como a atribuição de uma "voz" para um determinado instrumento, ou específica, como uma instrução para curvar um violino mais perto da ponte ou do braço.

A CMN tem características que a tornam tanto um documento gráfico como um texto, pois possui características "icônicas" que também são "simbólicas". Isto é, muitos de seus elementos são imagens análogas a uma representação sonora da peça, mas, ao mesmo tempo, podem ter significados simbólicos que necessitem de tradução. McLane (1996) define notação icônica como aquela que faz a distinção entre as várias localizações (diferentes alturas ou *itches*), durações e os níveis de intensidade que normalmente não são encontradas para detalhar as qualidades efetivas dos próprios sons. A notação de intensidade na música, por exemplo, é uma espécie híbrida de símbolos "f" e "p", mas suas extensões - "FF", "FFF", "PP" e "PPP" - que significam progressivamente mais *forte* ou mais *piano* - não possuem nenhum significado lexical, ou seja, as letras se tornam mais icônicas do que simbólicas.

Outra categoria de qualidades sonoras raramente encontradas em qualquer forma de notação musical tradicional são as incorporadas na *performance* e não exigem qualquer especificação porque fazem parte das características inerentes dos instrumentos musicais. Essa categoria inclui, por exemplo, a prática de tocar vibrato em instrumentos de corda, as sutis diferenças de timbre entre dedilhados diferentes para a mesma afinação de instrumentos de sopro e a tendência natural de instrumentos de sopro a variar em brilho dependendo da intensidade que as notas são reproduzidas (McLane 1996).

Com base nas necessidades dos diversos tipos de análise musical, McLane (1996) considerou três visões separadas de uma obra musical⁴ com o propósito de representá-la. Qualquer representação da música consistirá em uma ou mais dessas visões dependendo de quanto do documento original é necessário para recuperar a informação utilizada na análise musical. Essas visões da obra musical podem ser como está apresentado na Tabela 1.

A dependência ou liberdade do contexto justifica-se, conforme McLane (1996), pela dificuldade de reconverter fielmente a notação em forma audível sem a referência de uma gravação original de uma obra musical que foi concebida para a *performance* inicialmente. A CMN existe no contexto de uma tradição que permitiu simbolizar a *performance* para representar um conjunto maior de ações necessárias da execução da obra por músicos, mas não serve para a transcrição de músicas fora da tradição da música ocidental. Esse problema junto à ausência de especificações do timbre exigem uma representação objetiva mais completa da obra musical.

Uma característica importante da visão interpretativa é a sua independência formal em relação ao documento que aponta. A representação dentro desse ponto de vista não necessita de ter uma relação análoga com os elementos do original. Um aspecto da CMN, já que é intrinsecamente interpretativa, é o potencial que carrega para a identificação de estruturas musicais significativas em qualquer uma

4 Neste artigo, obra ou trabalho musical (tradução do termo "*musical works*") será entendido conforme definição de Smiraglia (2002) para o termo "*works*" que são artefatos das culturas das quais se originam e contém representações de conhecimento registrados que são criadas para comunicarem através de várias fronteiras culturais e temporais aos potenciais consumidores (leitores, acadêmicos etc.); e para o termo "*musical works*" que são concepções sonoro-intelectuais que tomam a forma de documentos de várias maneiras como um som em uma *performance* ou sua representação em uma partitura. Também são meios pelos quais as ideias musicais são capturadas até o fim do contínuo podendo ser reproduzidas ou absorvidas por outros.

das direções: horizontal ou vertical. Embora grande parte da música anotada que os músicos leem é na forma de partes constituído em vozes individuais, o todo utilizado na CMN é melhor exemplificado em uma partitura que exhibe todas as vozes simultaneamente.

Tabela 1: Características das visões da obra musical sugeridas por McLane (1996)

Subjetiva	Objetiva	Interpretativa
Visão através da notação que é baseada na ideia de alguém sobre uma obra	Visão através do registro audível de uma peça	Visão através da análise musical que representa um trabalho musical (junção das duas visões – subjetiva e objetiva) – abordagem descritiva que identifica os elementos de uma obra com sua estrutura e significado
Sempre dependente do contexto	Relativamente livre do contexto	Independência em relação ao documento que aborda
Produz representação linear da obra musical	Produz representação linear da obra musical	Produz representações extraídas de elementos não contínuos da obra
Perde a estrutura acústica mais completa	Perde a intenção do compositor a respeito da gramática estrutural das alturas (<i>pitches</i>) e da organização rítmica	Perde a relação estreita com os elementos do trabalho original, i. é, classifica os trabalhos musicais por sua estrutura organizacional
Permite uma simples identificação da obra quando a informação bibliográfica não é suficiente e a consulta por pequenos subconjuntos de elementos da notação da obra	Permite a exploração das características timbrísticas de um trabalho musical e uma identificação mais exata das instruções para a <i>performance</i> relacionadas à qualidade dos sons	Permite classificar a obra musical de acordo com sua organização estrutural
Exige um conhecimento básico de leitura musical do usuário	Não exige uma especialização do usuário	Requer grande expertise do usuário

Fonte: adaptado de McLane (1996)

Uma representação de um trabalho musical considerando que qualquer informação é significativa para a sua recuperação deveria ser mais que unidimensional e ter a flexibilidade para interpretar a sequência de seus eventos nas estruturas horizontal e vertical. A análise musical envolve outras relações não contíguas em uma obra musical, muitas delas embutidas de elementos “do lado de fora” que constituem as intenções do compositor. Um exemplo de análise do final do século XIX e início do século XX é a de Henrich Shenker, a qual grande parte da música europeia ocidental foi examinada por uma visão dos níveis de primeiro e segundo planos dos movimentos harmônicos e melódicos reduzindo-os (os trabalhos musicais) a um pequeno número de fórmulas aplicáveis.

McLane (1996) faz ainda uma discussão sobre os tipos de formatos admissíveis para as diferentes representações musicais, com enfoque para os formatos Plaine and Easie, DARMS, MIDI e SMDL, dentre outros. Enquanto as representações musicais são abstrações dos diferentes tipos de informação musical, os formatos citados pela autora referem-se a como essas informações musicais podem ser expressas. Por exemplo, no caso da representação de áudio, ela possui diversos formatos de codificação, sendo os mais populares o WAV (modo não comprimido) e o MP3 (modo comprimido), como é ilustrado no fragmento de arquivo de áudio da figura 3.

Arquivos em formato de áudio são difíceis de serem lidos e interpretados a olho nu, uma vez que os símbolos são ondas sonoras compreensíveis apenas por dispositivos de áudio, como uma placa de som, por exemplo. Conclui-se então que formatos associados ao áudio autorizam apenas a dimensão de performance da música, ficando

outras dimensões como a lógica, a gráfica e a analítica praticamente descartadas nesse tipo de codificação⁵.

0:	464F	524D	0001	83AE	4149	4646	434F	4D4D	FORM..ÉÆAIFFCOMM
16:	0000	0012	0001	0001	8380	0008	400D	AC44ÉÄ..@..`D
32:	0000	0000	0000	5353	4E44	0001	8388	0000SSND..Èà..
48:	0000	0000	0000	0000	0000	0000	0000	0000
64:	0000	0000	0000	0000	00FF	0000	0000	FEFC
80:	FBFB	FCFC	FCFD	FEFF	0001	0102	0303	0303	°°°°°°°°°°°°°°°°
96:	0303	0201	0101	0000	0000	0100	FFFF	FEFE
112:	FFFF	FFFF	FF00	0203	00FE	FCFC	FCFC	FBFC°°°°°°°°°°
128:	FDFE	0000	0000	0001	0102	0201	00FF	FFFF	".....
144:	FEFE	FF00	0001	0000	0000	0001	0100	0103
160:	0504	01FF	FEFE	FDFD	FBFA	FBFC	FEFF	FFFF°°°°°°°°°°
176:	0000	0000	00FF	FEFE	FEFD	FDFF	FF02	0303°°°°°°°°°°
192:	0302	0101	0201	0000	0205	0605	0200	0000°°°°°°°°°°
208:	FFFD	FBFA	FAFC	FDFD	FF00	00FF	FFFF	FEFD°°°°°°°°°°
(etc. File size: 99,254 bytes)									

Figura 3: Trecho de um arquivo em formato de áudio, completamente sem estrutura. Fonte: Byrd (2007)

A representação baseada em eventos temporais possui um formato digital popular e conhecido como *Musical Instrument Digital Interface* (MIDI). Este formato contém instruções de execução musical voltadas para um computador, assim como uma partitura musical contém instruções para um músico. Os sons gerados a partir das instruções de um arquivo MIDI não são naturais, mas produzidos artificialmente, através de técnicas de sintetização⁶ ou síntese sonora. A Figura 4 representa um trecho de arquivo em formato MIDI, mais especificamente o formato *Standard MIDI File* (SMF).

- 5 Existem pesquisas sobre recuperação de informação musical que buscam identificar padrões de comportamento (ou algum tipo de organização) nos sinais de áudio, mas essa é uma área pouco clara e as técnicas ainda estão muito incipientes.
- 6 Técnica baseada na criação eletrônica de timbres por meio de análise matemática de sons musicais.

```

Header format=1 ntrks=3 division=480
Track #1 start
t=0 Tempo microsec/MIDI-qtr=749760
t=0 Time sig=2/4 MIDI-clocks/click=24 32nd-notes/24-MIDI-clocks=8
t=2868 Meta event, end of track
Track end
Track #2 start
t=0 Meta Text, type=0x03 (Sequence/Track Name) leng=5
Text = <Piano>
t=0 NOn ch=1 num=72 vel=56
t=228 NOff ch=1 num=72 vel=64
t=240 NOn ch=1 num=74 vel=56
t=468 NOff ch=1 num=74 vel=64
(etc. File size: 193 bytes)

```

Figura 4: Trecho de um arquivo MIDI contendo instruções de execução sonora.
Fonte: Byrd (2007)

Percebe-se algum nível de organização com instruções como o tipo de nota a ser tocada, o tipo de instrumento que deve tocar essa nota e o tempo de duração da nota musical. Percebe-se que essa descrição não é tão estruturada como a CMN, mas possui elementos que permitem (com algum esforço e conhecimento) identificar que tipo de música este arquivo contém. O formato MIDI pode representar o *pitch*, o volume e outras características da música na forma sonora e é, portanto, voltado para a dimensão de performance da música, similar ao que ocorre com o áudio, só que com menor expressividade. Além disso, o MIDI possui muitos formatos estendidos, mas sua vocação essencial tem sido para interoperabilidade entre aplicações musicais distintas.

De um modo geral, os formatos para áudio e eventos temporais são restritos a códigos que mapeiam o domínio da performance ou escuta musical e suas funcionalidades variam pouco em relação às características dessas representações. Por sua vez, os formatos relacionados à música anotada são variados, porque essa

representação é mais estruturada e possui associação com várias possibilidades de uso, tais como impressão e análise musicológica.

Byrd (2007) classificou os formatos musicais citados por McLane (1996) e vários outros em três gerações distintas⁷. Na primeira, colocou os códigos mais voltados para as dimensões lógica e gráfica da Música; na segunda, os que contemplam aspectos de análise musicológica; na terceira, os que procuram representar todas as dimensões da música por sua natureza declarativa, extensivos e que sejam baseados em linguagens marcadas, como a SGML, por exemplo.

Um formato típico da primeira geração é o *Digital Alternate Representation of Music* (DARMS) desenvolvido por Stefan Bauer-Mengelberg por volta de 1963 (SELFRIDGE-FIELD, 1997), que ainda hoje é considerado por vários especialistas como um dos mais completos para representar a música anotada digitalmente (ROLLAND, 2002). Sabe-se, no entanto, que esse formato é limitado por priorizar apenas a notação gráfica e uns poucos aspectos lógicos da música. Por exemplo, a notação DARMS não registra explicitamente um *pitch* e é muito difícil extrair informações mais detalhadas sobre a música apenas pela leitura de um arquivo DARMS. Na Figura 5 está um pequeno trecho de partitura descrito em formato DARMS para se ter uma ideia da sua estrutura interna.

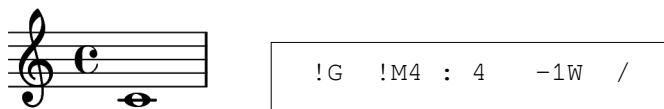


Figura 5: Exemplo de trecho CMN descrito em DARMS

7 Existem vários formatos disponíveis, mas apenas alguns serão mencionados aqui. Mais informações podem ser encontradas em <http://www.music-notation.info>.

Com um enfoque mais voltado para indexação e catalogação de temas musicais⁸, Book e Gould desenvolveram o Plaine and Easie (SELFRIDGE-FIELD, 1997), um código da segunda geração que se tornou importante por ter sido adotado no *Repertoire Internationale des Sources Musicales* (RISM), uma organização que mantém uma das maiores e mais antigas bases de dados de música clássica do mundo. Na Figura 6 é apresentado um pequeno trecho de código Plaine and Easie.

```
(#FC, C) '2D 4E F_/ 8D C ''4.A 8G / 1NF //
```

Figura 6: Trecho de arquivo em formato Plaine and Easie

Pertencente à segunda geração e voltado para análise musical, o Humdrum/**Kern é um misto de formato e ferramenta de análise musical específico para músicas monofônicas. A Figura 7 mostra uma descrição CMN em formato Humdrum/**Kern.



```
**kern
*clefG2
*M2/4
=1
8c
16c
16e
=2
8g
8g
8a
8a
```

Figura 7: Exemplo de trecho CMN descrito em Humdrum/**kern

8 Do ponto de vista musicológico, uma música (clássica, principalmente) possui uma parte mais significativa, denominada tema, que a torna única e pode ser usada para análises musicológicas e também para a indexação e catalogação de obras.

Uma geração mais recente de formatos surgiu na década de 1990 e a sua prioridade passou a ser a descrição conjunta de todas as dimensões da música (compreensiva, declarativa, explícita, interpretável, hierárquica, formal, flexível, extensível) por meio de uma única notação que conseguisse absorver as funcionalidades descritas na Figura 8.

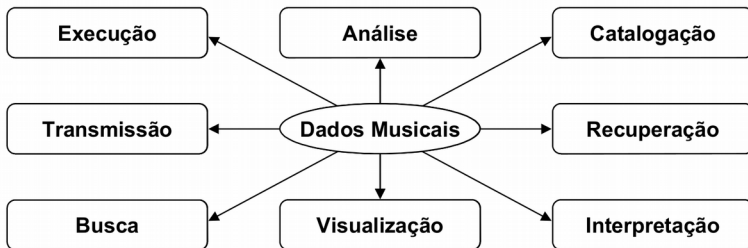


Figura 8: Funcionalidades possíveis para formatos de intercâmbio.
Fonte: Schwartz (2003, p. 3)

Por cumprirem as premissas descritas, as linguagens de marcação baseadas em SGML (como a XML e a HTML) passaram a ser utilizadas e, por isso, surgiram vários códigos baseados em XML, priorizando essencialmente essa capacidade de intercâmbio entre os tipos de software com os mais diversos propósitos funcionais. Um exemplar significativo da terceira geração de formatos é a MusicXML (GOOD, 2007) que consegue representar praticamente todas as dimensões da música, já que é uma linguagem extensível e declarativa (em oposição às linguagens procedurais usadas no passado). Na Figura 9 é mostrado um exemplo desse tipo de notação baseada em XML.



```

<measure number="1">
  <attributes>
    <time>
      <beats>4</beats>
      <beat-type>4</beat-
type>
    </time>
    <cleaf>
      <sign>G</sign>
      <line>2</line>
    </cleaf>
  </attributes>
  <note>
    <pitch>
      <step>C</step>
      <octave>4</octave>
    </pitch>
    <duration>4</duration>
    <type>whole</type>
  </note>
</measure>

```

Figura 9: Exemplo de trecho CMN descrito em MusicXML. Fonte: Good (2007)

As sete facetas da Informação Musical

Imagine um mundo em que você vai até o computador e canta um fragmento de uma canção que estava cantarolando desde o café da manhã. O computador codifica seu fragmento melódico, corrige a sua melodia e sugere que a causa da sua irritação desde cedo é "Camptown Races". Você confirma a sugestão do computador e ouve um dos muitos arquivos MP3 que foram encontrados. Satisfeito, você recusa a oferta para recuperar todas as versões existentes da canção, incluindo uma de rap italiano recém-lançada e uma partitura orquestral com dueto para gaita de foles (Downie 2003, 295, tradução nossa).

A realidade descrita por Downie (2003) já existe desde 2004 com o incremento do *Melodyhound*, um motor de música do Musipedia, que realiza buscas de melodias por meio do assobio em

um microfone no computador⁹. Também o aplicativo Shazam, com o lançamento do *Audio Fingerprinting*, é capaz de buscar metadados descritivos sobre melodias cantadas ou cantaroladas em um celular¹⁰. O primeiro permite a identificação de músicas que contêm a melodia entoada, o segundo é capaz de reconhecer pequenos trechos de áudio e identifica diferentes gravações que contêm o mesmo trecho.

A Informação Musical (IM) é compreendida por Downie (2003) em sete facetas em que uma não exclui a outra e cada uma desempenha uma variedade de papéis para a sua recuperação e armazenagem. A escolha para a representação da IM, seja baseada em símbolos, em áudio ou em ambos, determinará (i) os requisitos de interface de um sistema, (ii) os recursos de largura de banda (*bandwidth*) e computacionais, (iii) a armazenagem e (iv) a recuperação dessa informação. As sete facetas são as seguintes:

1. *Altura (pitch)*: é a qualidade percebida de um som em função de sua frequência fundamental em um número de oscilações por segundo; o quão agudo ou grave é o som, o análogo perceptual da frequência (Byrd e Crawford 2002). Sua representação gráfica é a posição das notas musicais no sentido vertical em uma partitura;
2. *Temporal*: é a informação relativa à duração dos eventos musicais e inclui: indicação de tempo, métrica, duração da altura, duração harmônica e acentos. Todos estes elementos formam o componente rítmico da música e as pausas são consideradas indicadores de duração dos eventos musicais e não estão contidas na informação da altura;
3. *Harmônica*: é quando duas ou mais alturas soam ao mesmo tempo, uma simultaneidade ou harmonia que caracteriza a

9 <http://www.musipedia.org/>

10 <http://www.shazam.com/>

música polifônica. O contrário de polifonia é chamado monofonia, isto é, somente uma altura soa no tempo. É representada pelas alturas que se alinham verticalmente em uma partitura e a interação entre as facetas altura e temporal para criar polifonia é o produto central da música europeia ocidental;

4. Timbre: compreende todos os aspectos da “cor” do som; distingue pelo ouvir os instrumentos musicais e inclui as informações de orquestração, ou seja, a designação de instrumentos específicos para executar todas ou parte de uma obra musical;
5. Editorial: são instruções para a *performance* musical e inclui: dedilhados, ornamentação, instruções dinâmicas, articulações, *staccati*, inclinação do arco etc. As dificuldades relacionadas a essa informação é a sua tipologia de representação que pode ser por meio de ícones, textual ou ambos. Inclui como informação, nesta faceta, o baixo contínuo (*figured-bass*) e as cadências que originalmente eram destinadas por muitos compositores para serem improvisadas que atualmente são realizadas pelo editor;
6. Textual: são as letras de canções, árias, corais, hinos, sinfonias e outros, além dos Libretos, que são textos de óperas;
7. Bibliográfica: pode ser o título de um trabalho, a identificação do compositor, do arranjador, do Editor, do autor da letra (ou da melodia), da Editora, da Edição, do número de catálogo, da data de publicação, da discografia, do *performer* entre outros.

As dificuldades para a Recuperação da Informação Musical¹¹ (MIR) são a sobreposição dos aspectos multiculturais, multiexperienciais, multirepresentacionais e multidisciplinares da música. Os desafios multiculturais surgem a partir da transcendência das fronteiras temporal e cultural da música, pois cada época histórica, cultura e subcultura criaram a sua própria maneira de se expressar musicalmente e há uma grande variedade de expressão. Há um erro ao pensar que os sistemas MIR apenas consideram que a única música que vale a pena recuperar é a música clássica e a popular ocidental tonal dos últimos quatro séculos, também denominada, *Common Practice Notation* (CMN). As tendências em trabalho com o repertório da CP são (i) a indisponibilidade e falta da padronização para a codificação simbólica e de áudio de muitos estilos de música; (ii) o custo e demora para aquisição, registro, transcrição e codificação de músicas como, por exemplo, as tribais africanas; (iii) a familiarização dos desenvolvedores com esse repertório e (iv) a maximização de usuários transculturais (Downie 2003).

Os desafios multiexperienciais aparecem principalmente porque a música existe na mente de seu ouvinte. Ou seja, a percepção, a apreciação e a experiência musical variam não só entre as inúmeras mentes que a apreendem, mas também podem variar dentro de cada mente, de acordo com o humor do indivíduo, a situação e as mudanças das circunstâncias. Pode ser experienciada como um objeto de estudo, seja por meio da execução das notas de uma partitura ou da audição de uma gravação; é relegada como fundo para outros objetos de estudo ou durante o trabalho doméstico em que a audição restringe-se apenas a um nível subconsciente. Algumas audições evocam experiências anteriores prazerosas; pode ser ouvida para perpetuação de tradições familiares; como um meio de expressão religiosa, sublimação ou êxtase; e também como “droga”

11 *Music Information Retrieval*.

em que os usuários buscam alterações físicas e emocionais reais (Downie 2003).

No caso dos desafios multirepresentacionais da IM, os desenvolvedores e avaliadores devem levar em conta as muitas maneiras diferentes de representação da música. Com exceção da faceta bibliográfica, as outras podem ser representadas como símbolos, como áudio ou como ambos. Devido à grande maioria das pessoas compreenderem o fenômeno musical como auditivo, os desenvolvedores entendem a necessidade de incluir o áudio em seus sistemas mesmo com o alto consumo de recursos computacionais. As decisões dos *designers* de MIR são baseadas nas possibilidades de criar coleções a partir de dados coletados na *web* com uso de *search engines* (SEO ou mecanismos de busca) em formatos variados (MIDI, CD ou MP3) e na propriedade intelectual que impede, por exemplo, a não disponibilização do áudio de partituras de domínio público. A escolha de uma ou outra representação da IM depende dos usos desejados dos sistemas, dos recursos computacionais disponíveis e da largura de banda. Na Tabela 2, é feita uma diferenciação sobre esses dois tipos de representação:

Tabela 2: Multirepresentação da Informação Musical

Representações simbólicas	Representações de áudio
Notas impressas Partituras: servem para o compositor instruir e orientar a execução da sua obra musical <i>Common practice Music Notation</i> (CMN) Textos Múltiplas codificações distintas: <ul style="list-style-type: none"> - Musical Instrument Digital Interface (MIDI) - GUIDO Music Notation Format - Kern - Notation Interchange File Format (NIFF) 	Apresentações ao vivo Gravações analógicas e digitais: <ul style="list-style-type: none"> - Discos - Arquivos MP3 - CDs; - Fitas cassetes etc.

Fonte: adaptado de Downie, 2003

Por fim, os desafios para o desenvolvimento de sistemas MIR são multidisciplinares, por esse motivo, convivem com uma heterogeneidade de visões de mundo de cada disciplina envolvida com o tema, com variações entre o conjunto de metas definidas, práticas aceitas, questões de pesquisa válidas e paradigmas de avaliação. Podem ainda ser citadas as seguintes dificuldades pelo envolvimento multidisciplinar na Música: (i) falta de familiaridade entre os membros dos vários domínios do conhecimento com as técnicas tradicionais de avaliação de recuperação da informação e de suas métricas associadas; (ii) falta de coleções padronizadas de testes multirepresentacionais que incluem propriedade intelectual, conjuntos padronizados de consultas e julgamentos de relevância; e (iii) ausência de uma linguagem comum e bases de conhecimento presentes nas comunicações de um ambiente multidisciplinar. Além de tudo isso, a literatura MIR não tem “base” disciplinar, ou seja, nenhuma sociedade oficial MIR, jornal, livro ou fundamentos existem para as pessoas interessadas adquirirem os conceitos básicos do MIR (Downie, 2003). Nesse contexto, pode-se dizer que, no Brasil, as discussões sobre representação e da recuperação da Informação Musical ocorrem em poucas iniciativas, como os congressos promovidos pela Sociedade Brasileira de Computação Musical (14ª edição em 2013) e pela recém-criada Associação Internacional de Bibliotecas e Centros de Documentação em Música (AIBM/IALM¹²-Brasil) em 2013.

As implicações para o estudo das facetas da IM necessárias ao desenvolvimento de sistemas MIR, além das comerciais, são sociais. O surgimento desses sistemas vai criar um significativo valor para os enormes conjuntos de música atualmente subutilizados e armazenados em bibliotecas do mundo, fazendo todo o *corpus* de música acessível. Esta acessibilidade será altamente benéfica para os

12 A sigla IALM refere-se ao nome original em inglês da associação: *International Association of Music Libraries, Archives and Documentation Centres*.

músicos, acadêmicos, estudantes e do público em geral; e o crescimento da comunidade multidisciplinar de pesquisa: Biblioteconomia, Ciência da Informação, Musicologia, Teoria Musical, Engenharia de Áudio, Ciência da Computação, Direito e Negócios (Downie 2003).

O usuário da Informação Musical

A institucionalização da CI aconteceu apenas na década de 60. A história da Ciência da Informação, em suas primeiras décadas, é caracterizada por um duplo movimento. Por um lado, o âmbito da disciplina foi ampliado e generalizado além do contexto da biblioteca tradicional e das instituições de informação e, por outro lado, o seu foco tornou-se mais estreito: as pesquisas de recuperação de informação desenvolveram seus referenciais científicos nos anos 50, ou seja, a ampliação do âmbito e o estreitamento do foco também significam uma transformação do fundamento teórico do contexto científico humanista e social para uma base científica. A partir dos anos 60, um espectro amplo de focos foi desenvolvido, correspondendo a um grande número de subdisciplinas, cada qual com um *corpus* de conhecimento em crescimento. Por esta razão, a Ciência da Informação teve a necessidade de uma perspectiva holística que integrasse o conhecimento empírico para as diferentes subdisciplinas em uma estrutura teórica unificada. A visão cognitiva foi a primeira resposta para este problema. Por volta dos anos 70, o paradigma da recuperação da informação deslocou-se em direção à uma contextualização mais ampla, voltando-se para os usuários e suas interações. Surgiram então, os estudos do comportamento de busca da informação, dos grupos de usuários e suas necessidades e do uso da informação nas organizações que demonstram a relevância do

contexto social no comportamento informacional (Ørom, 2000; Saracevic, 1996).

A abordagem cognitiva tem se desenvolvido e cada vez mais dominado o estudo do comportamento da informação, embora não seja totalmente aceito pela comunidade científica. O desenvolvimento da perspectiva cognitiva significou uma ampliação tanto do alcance quanto do foco da Ciência da Informação. É uma ampliação do alcance, no sentido de que todos os tipos de informações estão incluídos no conceito, e é também uma ampliação do foco no caminho que inclui comportamento informacional humano (recuperação) em geral, e em relação à recuperação de informação e os seus sistemas.

A abordagem se concentra nos aspectos qualitativos da interação de recuperação de informação. Durante as três décadas – 70, 80 e 90 – a abordagem cognitiva foi desenvolvida e dominou, em grande parte, o estudo do comportamento informacional. O ponto de vista cognitivo é baseado no modelo relativista de conhecimento, ou seja, o conhecimento é relativo e é alterado pelos processos cognitivos e sociais. A visão cognitivista pode ser vista como uma resposta teórica aos problemas do novo universo informacional de Copérnico, caracterizado pela fragmentação do conhecimento e pela diversificação das necessidades informacionais (Ørom, 2000).

Wilson (1999) insere o tema no campo do comportamento humano - comportamento informacional” - que refere-se às atividades de busca, uso e transferência de informação assumidas por um usuário que identifica suas necessidades de informação. Há quatro definições relacionadas ao comportamento informacional:

1. comportamento informacional: totalidade do comportamento humano em relação às fontes e canais de informação, incluindo informação ativa (que decorre da

- comunicação face a face) e passiva (decorrente da ausência de interatividade entre emissor e receptor);
2. comportamento de busca de informações: procura de informações como consequência de uma necessidade para satisfazer algum objetivo;
 3. comportamento de pesquisa de informações: vai além do mero processo de busca; pesquisa com elevação do nível de refinamento, com maior envolvimento intelectual, adoção de estratégias de pesquisa e julgamento de relevância dos resultados obtidos;
 4. comportamento de uso da informação: atos físicos e mentais relacionados ao envolvimento entre as informações encontradas e a base de conhecimento existente da pessoa.

O envolvimento de uma pessoa na identificação de suas próprias necessidades de informação, na busca pelas informações encontradas de qualquer maneira e na transferência e uso dessa informação pode ser considerado o comportamento informacional. As pesquisas que tratam deste tema tiveram suas origens na Conferência de Informação Científica da Royal Society em 1948 quando vários artigos sobre “necessidades do usuário”, “necessidades de informação” e “comportamento e busca de informação” foram apresentados por cientistas e tecnólogos. Os problemas destes trabalhos foram: 1) a tradição dos métodos positivistas que revelaram pouco para o desenvolvimento da teoria ou de sua prática; 2) os pesquisadores da CI ignoraram trabalhos das áreas afins como, por exemplo, os modelos teóricos do comportamento humano; 3) os modelos de comportamento informacional apareceram apenas por volta da segunda metade da década de 80 (WILSON, 1999).

Para Courtright (2007), o comportamento informacional é influenciado pelo contexto que atua: 1) como “contêiner”, em que os elementos existem objetivamente em torno dos atores; 2) como meio de construção de significado, em que o ponto de vista do autor é valorizado na pesquisa; 3) como construção social, em que os atores elaboram a informação por meio da interação social e; 4) como relacional, em que os conceitos de ator social e contexto estão vinculados entre si.

Para McLane (1996), a escolha de visão (subjetiva, objetiva ou interpretativa) e o grau de abrangência para uma representação da obra musical dependem das informações que o usuário necessita. A recuperação da informação musical é um processo interativo e depende do conhecimento do usuário e do nível de complexidade da informação desejada. De acordo com Weigl e Guastavino (2011), conceitos essenciais de recuperação da informação como “semelhança” e “relevância” podem variar no contexto da informação musical como, por exemplo, “semelhança” pode referir-se à estrutura da música ou ao humor (*mood*) transmitida e “relevância” auxilia o ajuste dos dados bibliográficos de uma música a uma consulta por palavra-chave ou a aplicação de um determinada função ou uso como música para “dirigir”, para o “dever de casa” ou voltada para “exercício”.

Diferentes aspectos do comportamento de busca e uso da informação musical que têm sido investigados foram observados nas pesquisas da primeira década (de 2000 a 2010) das conferências do *International Society for Music Information Retrieval* (ISMIR) por Weigl e Guastavino (2011) e tratam dos seguintes temas:

- Requisitos e necessidades de informação;
- Necessidades de informação de grupos específicos e em contextos específicos;

- *Insights* sobre aspectos específicos da percepção e da preferência musicais, como, por exemplo, os fatores que causam nos ouvintes não gostarem de certas músicas, o impacto das relações sociais no gosto e na aquisição de música e os efeitos de fatores demográficos e de elementos contextuais externos à música nas descrições semânticas de música;
- Análises de consultas textuais MIR como a representação simbólica da melodia procurada e expressões precisas da linguagem natural para necessidades de informações da música;
- Emprego de estudos de usuários para gerar dados *ground-truth*¹³ de um corpus de documentos para efeito de treinamento e avaliação;
- Organização da informação de música digital;
- Estratégias de busca e critérios de relevância utilizados quando há buscas ativas de novas músicas;
- Comportamento informacional nos “encontros” fortuitos ou passivos com a nova música.

Weigl e Guastavino (2011) relatam que as metodologias empregadas e descritas nos artigos catalogados são qualitativas em

13 Refere-se ao processo de colher dados normalmente utilizados em modelos estatísticos para provar hipóteses de pesquisa, com uso de técnicas de *Machine Learning*. Ver mais em http://en.wikipedia.org/wiki/Ground_truth.

sua maior parte, refletindo a natureza exploratória das pesquisas existentes e há poucos estudos que mesclam essa abordagem com a quantitativa. No caso das pesquisas qualitativas, as abordagens mais comuns são (i) pesquisa etnográfica, (ii) observação do comportamento informacional, (iii) entrevistas com usuários, (iv) painéis de design participativo, e (v) métodos mais remotos como pesquisas *online* de diário e análises de consultas de *logs* de sistemas. Muitos estudos qualitativos neste campo da MIR fazem uso da *Grounded Theory*, uma abordagem na qual as observações são codificadas sem assumir qualquer suposição prévia, permitindo a teoria emergir a partir dos dados coletados. Por esse motivo, é considerada apropriada para a fase de análise de dados e pesquisas exploratórias (Weigl e Guastavino 2011).

Alguns trabalhos – internacionais e nacionais – foram escolhidos para exemplificar os temas investigados e as metodologias empregadas trazendo as contribuições de autores envolvidos com as pesquisas MIR e os rumos possíveis dependendo do tipo de especialização de usuário e dos métodos e técnicas utilizados.

Lee e Downie (2004) realizam um estudo de usuários voltado para as necessidades, usos e comportamentos de busca da informação musical no dia-a-dia. Por meio de uma metodologia baseada no *survey*, o trabalho teve como objetivo fornecer uma base empírica para o desenvolvimento de sistemas nos campos da recuperação de informação musical (*music information retrieval* - MIR) e das bibliotecas digitais de música (*music digital library* - MDL). Ao apresentarem conclusões preliminares e análises com base nas respostas de 427 usuários graduandos, pós-graduandos, professores e funcionários de uma universidade, Lee e Downie (2004) afirmam que: (i) as pessoas exibem comportamentos de busca de informação musical pública fazendo uso de conhecimentos, opiniões, avaliações e/ou recomendações dos outros usuários sobre música; (ii) os

entrevistados expressaram necessidades de metadados contextuais (que são os relacionais e os associativos) além dos metadados bibliográficos tradicionais.

Nos resultados do seu trabalho, Lee e Downie (2004) encontraram que os usuários:

- consideram relevantes os metadados descritivos e as informações extramusicais, pois enriquecem suas experiências envolvendo o seu consumo de música;
- buscam a música para terem uma experiência auditiva;
- buscam a informação que contribua para a construção de coleções pessoais de música e para a verificação ou identificação de obras, artistas, letras, etc.;
- valorizam opiniões *online* sobre música como avaliações, recomendações e sugestões;
- têm preferências definidas a respeito de onde ir fisicamente para buscar informações sobre música, escolhendo como primeira opção as lojas de música;
- preferem recursos *online*, em oposição aos impressos, para obterem informações extramusicais.

Concluem também que a busca por informação musical deve ser vista como um ato instigado socialmente em que seus usuários empregam conhecimento público e/ou opiniões para pesquisas. Sugerem que essa busca nem sempre é um processo isolado e privado, mas também um processo público (coletivo) e compartilhado. Este conhecimento coletivo não apenas é voltado para buscas específicas de músicas, mas também faz parte de um processo mais flexível e menos direcionado de exploração.

Laplante (2011), por meio de um estudo qualitativo, investiga quais as contribuições que fazem a experiência da busca por informação musical satisfatória na vida cotidiana de usuários, entre 18 e 29 anos, de uma biblioteca pública canadense. O objetivo principal da pesquisa é examinar a completa experiência de busca por informação da perspectiva dos usuários com base nas questões: o que faz a experiência por busca de informação musical satisfatória; quais são os resultados utilitários (a aquisição de música e de informação sobre música) contribuem para a satisfação na busca; quais são os resultados hedônicos (o sentimento de engajamento e o prazer) que também influenciam para a satisfação dos usuários e o que faz a busca ser uma experiência insatisfatória. O procedimento adotado é a entrevista com 15 jovens adultos a respeito de suas percepções das experiências do dia-a-dia na busca por informação musical utilizando variados sistemas e fontes informacionais como os sistemas baseados em computador (especializado em música ou não) como bibliotecas digitais e sistemas IR; sistemas manuais como terminais de navegação em lojas de música ou bibliotecas além de outras fontes de informação musical como bibliotecários, colegas, amigos e mídias (jornais, revistas e rádio). A coleta de dados, conforme estrutura conceitual da pesquisa, foi realizada em cinco seções: 1ª) gosto musical e lugar que a música ocupa na vida do entrevistado; 2ª) memória do último artista ou gênero musical descoberto e apreciado e como aconteceu essa descoberta; 3ª) fontes de informação musical utilizadas para a busca e a interação do entrevistado com elas; 4ª) resultados hedônicos e utilitários que contribuíram para a interação com o sistema MIR satisfatória e não somente a busca para ocupar o tempo livre; 5ª) coleta de informação secundária sobre os participantes do estudo.

Os resultados desta pesquisa foram os seguintes: (i) o grau de satisfação da busca por IM dependeu da qualidade da música encontrada do ponto de vista dos entrevistados e do sentimento de

realização em relação à descoberta que fizeram; (ii) a aquisição de informação sobre música foi prazerosa por aumentar o conhecimento do usuário em relação à uma cultura específica, pelo enriquecimento das experiências auditivas e pela coleta de informação para futuras aquisições; (iii) o prazer na atividade de procura por lojas de música ou na busca pela web como um passatempo; (iv) a profunda absorção pela busca de música ou informação musical principalmente pela Internet ao ponto de perderem a noção do tempo e não conseguirem parar; (v) estreita similaridade entre o comportamento informacional e o de consumo; (vi) a descoberta de músicas e artistas pouco conhecidos reforçando o relevante potencial do “*Long Tail*”; (vii) a aquisição de informação musical resultante da experiência de consumir música ou na interação com sites *web* relacionados com música influenciaram os sentimentos de satisfação dos respondentes; (viii) gostos musicais permitem que os usuários afirmem o pertencimento a grupos sociais e se distingam dos outros; (ix) a informação sobre música auxilia os usuários na apreciação da música e na avaliação das músicas encontradas posteriormente inclusive fazer sugestões para conhecidos.

A primeira tese de doutorado defendida sobre estudos de usuário no Brasil ocorreu em 2008 e foi publicada em um periódico da CI em 2011. Cruz (2011) se debruçou em saber quais os tipos de informação musical os usuários leigos manipulam quando estão envolvidos em um comportamento informacional e procurou identificar quais atributos (metadados) informacionais consideram para as consultas de músicas e para os resultados de buscas quando estão frente a um sistema de recuperação de IM que atende suas necessidades. A elaboração de um modelo de necessidades de IM relacionou-se às variáveis de análise presentes em um questionário que foi aplicado via *web* com 1.252 alunos graduandos não especialistas em música de uma universidade brasileira.

Os principais resultados encontrados nessa pesquisa foram:

- o convívio social e as situações que envolvem *show* televisivo e cinema motivam mais a pesquisa por música (fatores externos);
- a preferência pela Internet para consultas, principalmente para realizar *download* de arquivos musicais;
- a influência de membros da família e de amigos na comportamento de busca da informação musical;
- o áudio é a representação da IM mais requerida destacando os formatos MP3 e OGG Vorbis¹⁴;
- a associação do fenômeno musical aos eventos visuais como clipes, filmes e imagens;
- a predominância das consultas por letras das músicas, pelo intérprete e pelo gênero da música;
- os atributos (metadados) de recuperação da IM mais preferidos foram os descritivos (bibliográficos) com relevante procura por fragmentos das letras das músicas e das melodias, o que sugere a aceitação de sistemas *Query by Humming* (QBH)¹⁵, além de sistemas que recomendam artistas, músicas e opiniões sobre músicas;
- a utilização para o lazer e para identificar e conhecer mais sobre músicas.

Dougan (2012) procurou identificar como e por quais ferramentas os estudantes de música identificam, localizam e acessam material musical, principalmente partituras e gravações, para utilizá-

14 <http://www.vorbis.com/>.

15 QBH nesse contexto refere-se a sistemas que possuem interfaces onde o usuário pode cantarolar uma melodia a ser pesquisada numa base de dados musical.

los em seus estudos e examinar as similaridades e as diferenças no comportamento da busca por IM desses estudantes em várias subdisciplinas da área e em variados momentos das suas carreiras acadêmicas. As questões levantadas foram relacionadas a identificar (i) como o campo de estudo do aluno de Música afeta suas escolhas e qual informação é relevante para eles, (ii) porquê ficam frustrados no processo de pesquisa e (iii) de que maneira e onde buscam ajuda.

A metodologia da primeira fase desse estudo foi um *survey* disponível em uma página *web* conectada ao servidor da universidade com 20 questões estruturadas para coletar o *feedback* a respeito da frequência com que os estudantes procuram por partituras e gravações no curso de seus estudos musicais, das ferramentas e dos dados utilizados para encontrá-las, da forma como aprendem *online* sobre as variadas ferramentas de busca, suas frustrações nessas buscas e se procuram ajuda quando encontram dificuldades. O estudo foi aplicado com 79 alunos de graduação e pós-graduação que foram considerados para a análise em seus respectivos anos do curso e subáreas de estudo. A segunda fase da pesquisa foi realizada por meio de dois grupos focais e revelou maiores detalhes do comportamento de busca pela IM dos estudantes.

Os resultados encontrados relevaram que esses estudantes usam muitas ferramentas bibliográficas, os catálogos *online* disponíveis no *website* da universidade e outros dependendo da funcionalidade, facilidade de uso, familiaridade e interface desses catálogos. Além disso, usam ferramentas não bibliográficas como as interfaces para descoberta e acesso de partituras e gravações musicais. Foi identificada ainda maior compatibilidade de comportamento de busca entre os alunos da subárea da Performance e da Educação Musical do que entre os da Musicologia ou História da Música e Teoria Musical ou Composição. disso, os alunos da pós-

graduação e os da graduação possuem diferentes comportamentos principalmente em relação aos alunos que estão nos anos iniciais e, os primeiros demandam maior uso de fontes bibliográficas.

A partir de um amplo conjunto de metadados levantados com base na literatura, Barros e Café (2013), procuraram descobrir quais os metadados de representação da IM são relevantes à sua recuperação na perspectiva de usuários especialistas em música. O público-alvo foram estudantes e professores de cursos de pós-graduação em Música de uma universidade brasileira. Além de estabelecer um conjunto mínimo de elementos de metadados para a representação da IM, o objetivo da pesquisa é relacioná-los ao contexto educacional e de pesquisa a que pertencem. Os resultados apontaram que as informações mais relevantes para os usuários especialistas em Música são aquelas referentes à identificação e às responsabilidades de autoria.

Considerações finais

A compreensão da música como informação foi iniciada por McLane (1996) e revista por Downie (2003), como uma forma de adaptá-la em termos de representação para permitir a sua recuperação para a imensa população de interessados. A popularidade de sites de música como o AllMusicGuide e o MySpace, além dos sistemas de recomendação musical e os sistemas de busca pela Internet como o Jogli e o Songza¹⁶ mostram que a estratégia de redefinir a música como informação (IM) foi providencial.

Do ponto de vista de aplicação de tecnologias da informação, parece que perceber a IM como uma linguagem dotada de semântica,

16 Disponíveis em <http://www.jogli.com/> e <http://www.songza.com/>, respectivamente.

facilita a adaptação de conceitos historicamente aplicados na recuperação textual. O problema dessa iniciativa, é que, enquanto o texto é caracterizado como unidimensional, a música é complexa e dotada de várias dimensões entrelaçadas e com usos diferentes em relação ao texto. Além disso, as consultas musicais são complexas dificultando mais ainda a implantação de um padrão de recuperação musical, como discutido por Downie (2003).

Não obstante essa discussão, mesmo a informação textual é uma área ainda em plena evolução e parece haver mais perguntas do que respostas. Portanto, se a sistematização dos mecanismos aplicáveis na organização de documentos textuais (indexação, recuperação, catalogação e outros) é ainda um caminho incerto, essas dúvidas acabam se transferindo para o caso da informação musical. Essa argumentação é muito clara nos escritos de Byrd e Crawford (2002). Por outro lado, é perceptível que as evoluções tecnológicas estão caminhando mais rapidamente do que a própria compreensão daquilo que o usuário deseja. Ao que parece, os projetistas de sistemas musicais assumem certas posições mercadológicas e definem formatos, reinventam aplicações e produzem novidades para atrair o consumo, porém sem inquirir o público. Às vezes essa postura funciona bem – como é o caso da grande aceitação dos *i-pods* – e, às vezes não, como no caso da violação incontrolável de direitos autorais, situação essa gerada pela aplicação de tecnologias. Argumenta-se aqui que a compreensão sobre o comportamento informacional dos usuários de música pode trazer benefícios, inclusive uma possível resposta para o problema da pirataria que tem ocorrido no mundo.

Os estudos de usuários tiveram o foco voltado para o usuário por volta da década de 1980, mas a maioria das pesquisas no campo da Recuperação da Informação Musical ainda está centrado nos sistemas (*systems-focused*). Tais estudos são os relatos das

investigações empíricas que atestam as necessidades dos usuários ou as interações destes com sistemas direcionados ao acesso à informação musical incluindo gravações musicais, partituras, letras, fotografia, obras de arte e outros metadados associados.

No Brasil os estudos de usuário são irrisórios e os poucos que existem com foco numa abordagem mais cognitiva sobre usuários de informação musical ocorrem mais em nível internacional. Poucos estudos focam no comportamento do usuário em vida cotidiana e muitos focam na avaliação de sistemas MIR e adotam uma abordagem mais quantitativa além de serem exclusivamente voltadas ao comportamento externo do usuário, isto é, o seu envolvimento com os sistemas (Laplante, 2011; Weigl e Guastavino 2011).

Com relação ao comportamento de usuários de informação musical, percebe-se um período de transição na qual alguns usuários estão começando a se apropriar dos novos sistemas MIR – que podem reconhecer uma melodia cantarolada, oferecer recomendações personalizadas ou diferentes versões de uma canção, enquanto outros usuários ainda continuam a utilizar as ferramentas e estratégias tradicionais como visitar lojas de música, pedir recomendações aos amigos e ler revistas sobre música (Laplante 2011).

Embora as pesquisas sobre a recuperação de informação musical no Brasil sejam recentes, a base da literatura tem sido a internacional principalmente aquela divulgada nas conferências do ISMIR e tem compreendido desde o público especializado até o não especializado em música. Compreende-se a relevância das pesquisas voltadas aos usuários leigos, pois são a maioria que consomem música e estão diariamente buscando músicas para suas coleções pessoais a serem armazenadas principalmente nos dispositivos móveis como os celulares e *tablets*.

Por fim, pode-se dizer que um dos desafios para a pesquisa sobre representação e recuperação da informação musical é a falta de padronização de termos traduzidos do inglês uma vez que o campo é interdisciplinar. São encontrados termos com o mesmo significado com diferentes traduções nos estudos empreendidos por bibliotecários e desenvolvedores de sistemas. Além disso, poucos pesquisadores da área de Música tem se aventurado neste tema. No entanto, serão esses que poderão suprir as brechas e contribuir e colaborar para o fortalecimento e sistematização dos estudos que podem ser úteis à academia e ao mercado.

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LIMITES E DESAFIOS NA REPRESENTAÇÃO DA INFORMAÇÃO MUSICAL NO ÂMBITO DO *RÉPERTOIRE INTERNATIONAL DES SOURCES MUSICALES* (RISM)

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Resumo: Em termos gerais, a escrita da música na tradição ocidental se realiza utilizando um conjunto de símbolos combinado com caracteres alfanuméricos, termos, expressões e/ou texto literário que, ao longo da história, foram definindo os diversos tipos de notações musicais incluindo a alfabética, a neumática, a fonética, a mensural, assim como diversos tipos de tablaturas. Com diversos graus de limitações e comprometimentos, a maior parte dos documentos musicográficos pode ser transcrita à notação moderna. Dessa forma, a informação musical escrita de grande parte da história da música pode ser representada e tratada no âmbito do *Répertoire International des Sources Musicales* (RISM). Explorando o histórico do projeto RISM, discutimos as funcionalidades, estratégias e estrutura da base RISM assim como a inclusão de novos repertórios especialmente o conjunto documental musicográfico gerado durante o século passado. Neste sentido, apontamos para a expansão do código atualmente utilizado no registro da informação musical extraída da documentação musicográfica, eventualmente acrescentando opções que atendam à necessária descrição das fontes documentais ou mesmo o desenvolvimento de novos sistemas que permitam a codificação e recuperação de melodias parametrizadas heurísticamente.

Palavras-chave: RISM; notação musical; documentos musicográficos; plain-and-easie code; incipit musical.

LIMITS AND CHALLENGES IN THE REPRESENTATION OF MUSICAL INFORMATION WITHIN THE RÉPERTOIRE INTERNATIONAL DES SOURCES MUSICALES (RISM)

Abstract: In general terms, the writing of music in the Western tradition is carried out using a set of symbols combined with alphanumeric characters, terms, expressions and/or literary text, along history, have been defining the different types of musical notations including the alphabetical, neumatic, phonetic, mensural, as well as several types of tablatures. With several degrees of limitations and compromises, the majority of musicographical documents can be transcribed into modern notation. Thus, the written musical information of much music's history can be represented and treated under the *Répertoire International des Sources Musicales* (RISM). Exploring the history of the RISM project, we discuss its functionalities, strategies and structure of RISM database as well as the inclusion of new repertoires especially the musicographical documents ensemble generated during the last century. In this regard, we point to the expansion of the code currently used in the registry of musical information extracted from the musicographical documentation, eventually adding options that meet the required description of the documental sources or even the development of new systems that allow the encoding and retrieval of heuristically parameterized melodies.

Keywords: RISM; music notation; musicographical documents; plain-and-easie code; musical incipit.

A informação musical no âmbito do RISM

Em termos gerais, a escrita da música na tradição ocidental se realiza utilizando um conjunto de símbolos, conhecidos como grafia musical propriamente dita, combinado com caracteres alfanuméricos, termos, expressões e/ou texto literário que, ao longo da história, foram definindo os diversos tipos de notações musicais incluindo a

alfabética, a neumática – com e sem a(s) linha(s) da pauta –, a fonética, a mensural, assim como diversos tipos de tablaturas.

Com diversos graus (aceitáveis) de limitações e comprometimentos, a maior parte dos documentos musicográficos pode ser transcrita à notação (assim chamada) moderna. Dessa forma, a informação musical escrita de grande parte da história da música pode ser representada e tratada no âmbito do Répertoire International des Sources Musicales (RISM).¹

Segundo o histórico do projeto RISM, a informação oriunda dos documentos musicográficos até hoje localizada e identificada pelo RISM integra um conjunto de publicações catalográficas agrupada em três séries: a) série A – alfabética; b) série B – sistemática; e c) série C – index de bibliotecas, arquivos e centros de documentação de música.

RISM Série A/I – Impressos musicais

Denominada “Impressos musicais individuais anteriores a 1800”, a série A/I é um catálogo de música impressa entre 1500 e 1800 aproximadamente, que inclui:

- ⊗ 9 volumes (publicados entre 1971 e 1981) com mais de 78.000 impressos musicais produzidos por 7.616 compositores localizados em 2.178 bibliotecas, centros de documentação e arquivos;
- ⊗ 4 volumes complementares (lançados entre 1986 e 1999), seguidos por mais um volume (realizado em 2003) incluindo o índice de editores, impressores, gravuristas e locais de publicação.

1 Mais informação sobre o *Répertoire International des Sources Musicales* se encontra disponível em <http://www.rism.info/>.

Este catálogo está arrumado alfabeticamente por compositor e contem apenas impressos individuais, isto é, impressos de obras de um só compositor. Os impressos coletivos (incluindo mais de um compositor) são incluídos na série B.

RISM Série A/II – Manuscritos musicais

Denominada “Manuscritos musicais posteriores a 1600”, esta série A/II inclui apenas música escrita a mão, descrita em detalhe (incluindo *incipits* musicais) segundo um conjunto de mais de 100 campos agrupados em 8 blocos de informação. Na base de dados internacional constam mais de 832.000 registros de documentos musicais produzidos por mais de 27.000 compositores localizados em mais de 900 bibliotecas, centros de documentação e arquivos de 37 países.

RISM Série B

Comporta uma série sistemática de catálogos descrevendo conjuntos de fontes bem delimitados e, até hoje, divididos em 15 grupos:

- a) B/I e B/II: Antologias impressas entre os séculos XVI e XVIII (2 Volumes).
- b) B/III: Teoria da música da Era Carolíngia até ca. 1500 (manuscritos - 6 volumes).
- c) B/IV: Manuscritos com música polifônica do século XI ao XVI (5 volumes + 1).
- d) B/V: Manuscritos de Tropos e Sequências.

- e) B/VI: Escritos impressos sobre música.
- f) B/VII: Manuscritos de tablaturas para alaúde e guitarra do século XV ao XVIII.
- g) B/VIII: Canções eclesiásticas alemãs (2 volumes).
- h) B/IX: Fontes hebraicas (2 volumes).
- i) B/X: A Teoria da música em escritos árabes de ca. 900 a 1900 (2 volumes).
- j) B/XI: Teoria da música na Grécia antiga. Catálogo Raisononné de manuscritos.
- k) B/XII: Manuscritos persas relativos a música.
- l) B/XIII: Impressos musicais dos séc. XVI a XVIII na Boêmia, Eslováquia, Polónia e Sorábia.
- m) B/XIV: Manuscritos acerca o processional (2 volumes).
- n) B/XV: Missas polifônicas na Espanha, Portugal e América Latina de 1490 a 1630.

RISM Série C

Denominada “Lista das Bibliotecas de pesquisa em música” esta série inclui informações relativas às bibliotecas, arquivos e coleções privadas de música que detenham materiais musicais históricos (5 volumes). Este index é produzido em cooperação com o Comitê de Publicações da IAML. Por sua vez, o volume especial denominado “Index completo das siglas de bibliotecas no RISM” (lançado em 1999), é atualizado regularmente.

Além dessas séries, os grupos de trabalho nos diversos países que colaboram com o RISM (como é o caso do RISM-Brasil), desenvolvem projetos de localização e catalogação de fontes documentais relativas à música, dentre os quais se destaca o levantamento de libretos constantes nesses países.

Destarte, pode-se observar que a informação constante em notação musical se encontra disponível nas séries A e B do RISM.

Objetivando a descrição exaustiva e o tratamento dessa informação, o projeto RISM desenvolveu ao longo do seu histórico um conjunto de regras, estilos e formas de representar dita informação que foi ganhando aos poucos caráter normativo mantendo, no entanto, certa margem de adaptabilidade segundo as necessidades documentais.

A informação musical no *Plaine & Easie Code*

Em função da natureza textual da representação da informação na inserção de registros nas bases de dados atualmente em uso, foi desenvolvida pelo RISM em cooperação com a IAML (*International Association of Music Libraries*) uma forma de codificação da notação musical propriamente dita. Denominada *Plaine & Easie Code* (Código Fácil e Simples – em diante *P&E*), esta forma de representação codificada da informação extraída da notação musical presente na documentação contemplada pelo projeto RISM é baseada em caracteres alfa-numéricos e o seu desenvolvimento é mantido pela IAML, sendo compatível com formatos de catalogação bibliográfica.²

2 Mais informação disponível em http://www.iaml.info/en/activities/projects/plain_and_easy_code.

Segundo a normativa do RISM em uso, a referida informação extraída da notação musical propriamente dita deve ser inserida no campo RISM 826 – *incipit* musical (complementado pelos campos RISM 820, 822, 823, 824 e 827).³ Este conjunto de campos se insere (com o uso de diversos tags) nos campos MARC21 031⁴, UNIMARC 036, e MAB 681. Apenas a guisa de exemplo de como a grafia musical aparece quando transcrita no *P&E*, incluímos o Figura 1, junto à explicação sumária das suas partes.

Ainda, segundo o *P&E*, a normativa do RISM aceita a codificação de notação musical neumática (quadrada), mensural ou moderna (Tabela 1), permitindo assim incluir o tratamento e representação da informação oriunda de documentação musicográfica da maior parte do passado musical ocidental.

3 Estes campos recebem a informação musicográfica relativa à clave, tonalidade, tipo de compasso (e sua eventual medida real), junto a eventuais comentários relativos ao *incipit* inserido. Cf. RISM España (1996).

4 Informamos aqui o número do campo MARC21 segundo definido pela *Library of Congress* (Cf. <http://www.loc.gov/marc/bibliographic/bd01x09x.html>) embora a IAML indique o campo MARC21 789 com a mesma função (Cf. http://www.iaml.info/en/activities/projects/plain_and_easy_code).

Notação Musical

Plaine & Easie Code

`%C-1$bbEA@c'2A-//$xFC8B-4-2-/@3/21C2-//`

<code>%C-1</code>	<code>\$bbEA</code>	<code>@c</code>	<code>'2A-//</code>	<code>\$xFC</code>	<code>8B-4-2-/</code>	<code>@3/2</code>	<code>1C2-//</code>
Clave	Armadura	Tipo de compasso	Conteúdo do compasso 1 com a barra de compasso dupla no final	Nova armadura	Conteúdo do compasso 2 com a barra de compasso simples no final	Novo tipo de compasso	Conteúdo do compasso 3 com a barra de compasso dupla final no final

Figura 1 – Pequeno trecho em notação musical e sua transcrição em *Plaine & Easie Code*

Tabela 1 – Codificação de durações segundo o P&E⁵

Código	Duração	Figura
0	Longa	
9	Breve	
1	Semibreve	
2	Mínima	
4	Semínima	
8	Colcheia	
6	Semicolcheia	
3	Fusa	
5	Semifusa	
7	Semi-semifusa	
4.	Semínima pontuada	
8..	Colcheia duplamente pontuada	
7.	Notação neumática	

5 Cf. IAML. Plaine & Easie Code - 4.2. Rhythmic values. Disponível em http://www.iaml.info/en/activities/projects/plain_and_easy_code. Acessado em 10 abr 2013.

Pros e contras do *Plaine & Easie Code*

Embora o *P&E* permita codificar a informação extraída do repertório musical (impresso ou manuscrito) que possa ser transcrito a notação neumática, mensural ou moderna – o que representa apenas (sendo otimistas) menos de 80% do repertório musical atualmente disponível – cabe a pergunta: o que acontece com a restante documentação musicográfica em cuja transcrição para as referidas notações, o grau de comprometimento da informação original não é aceitável? (Exemplo 1) Ainda, o que fazer com dita documentação quando resulta simplesmente impossível de transcrever a tais sistemas de notação? (Exemplo 2).

Quando observado com cuidado o Exemplo 1, a repetição da nota inicial (mi) só poderia ser codificada (na atual configuração do *P&E*) definindo uma das múltiplas e variadas possibilidades de interpretação da mesma, já que a notação musical utilizada por Widmer não prescreve mais do que a repetição aproximada (segundo indica o signo ~) de durações alternadas – longa-curta. Ainda, o número de repetições também não ficou indicado pelo compositor, dependendo do tempo que o público precisar para se aquietar e concentrar no som da corda do piano sendo pulsada.

No caso do Exemplo 2, a codificação das seis primeiras notas no *incipit* musical não incluiria a parte que mais caracteriza a obra, que é justamente a interferência inserida por Lindembergue Cardoso a qual, por outro lado, parece impossível de transcrever no referido código alfanumérico proposto pela IAML pelo fato de ser falado e não cantado.

entroncamentos sonoros
opur 75
Ernst Widmer

1. concentrado

The score for '1. concentrado' features a piano part on a grand staff and a vocal line below. The piano part begins with a fermata and a box containing a fermata symbol and the instruction 'n.'. Below the piano part, there is a text box: 'Sempre repetir à vontade até o público aquietar'. The vocal line starts with a fermata and the instruction '10" silêncio'. The piano part includes the instruction 'aproximando e afastando em accel.' and the vocal line ends with 'attaca'.

2. concentrado

The score for '2. concentrado' features a piano part on a grand staff and a vocal line below. The piano part starts with a fermata and a box containing a fermata symbol and the instruction 'n.'. The vocal line includes the instruction 'pianísta canta' and the lyrics 'm u o ó r a é e i j'. The piano part includes the instruction 'pianísta arroblo (ou toca ocarina)'. The vocal line ends with 'rumindo' and the piano part ends with 'attaca'.

Exemplo 1 – Início de *ENTRONcamentos SONoros* op. 75, de Ernst Widmer

SOLOISTAS $\text{♩} = 66$

A - VE MA RI - A

3 VEZES $\text{♩} = 110$ (FALADO)

CÔRO **GRATIA PLENA** CHEIA DE GRACIA

P f

SOLOISTAS $\text{♩} = 66$

DO - MI - NUS TE - CUM

calmo (FALADO)

CÔRO BEN - DI - TA SOIS VÓS

Exemplo 2 – "AVE MARIA" – Arcadelt/Lindemberg Cardoso

Embora possa se arguir que o cerne do projeto RISM não permite incluir o tratamento de repertórios de fontes musicais escritas (ou impressas) que não utilizem os sistemas de notação por ele previstos (neumática, mensural ou moderna), são tantos os benefícios que este projeto tem trazido à comunidade vinculada à música (tanto científica quanto artística) que não podemos deixar de cogitar a sua expansão a fim de incluir repertórios musicais posteriores que, pelo inevitável transcurso do tempo, deveriam ser atualmente considerados como históricos (foco principal do projeto RISM em geral). No entanto, como ampliar ou redesenhar a forma de codificação de incipits musicais para assim poder inclui-los? Considerando que a relevância da codificação da informação extraída da notação musical propriamente dita reside na sua recuperação e

possível comparação em termos estritamente fraseológicos musicais (contornos e proporções melódicos), seria mister observar como isto acontece no âmbito do RISM.

O sistema de busca por *Incipits* musicais na base de dados RISM online

Segundo o próprio RISM informa, a recuperação da informação feita pelas notas musicais (*incipit* musical) de uma melodia extraída de um documento musicográfico considera apenas a sequência de alturas escritas em notação alfabética anglo-saxã (ABCDEFGH ou abcdefgh) desconsiderando tanto as notas ornamentais, as oitavas, a métrica, o ritmo e as eventuais alterações que pudessem constar na fonte documental.

Assim, uma busca em todos os campos (*All fields*) pela sequência de notas FGF BAGFA retornou apenas dois registros: o *Abenlied* para coro masculino, clarinete e viola de Ludwig Baumann e a Sonata em lá menor para 2 violinos e baixo contínuo de Tomaso Albinoni. Por outro lado, quando realizamos a busca da mesma sequência de notas escolhendo apenas o campo *incipit* musical (*music incipit*), o RISM nos retornou 10 registros (Quadro 3) dentre os quais não consta o registro relativo à Sonata de Albinoni, recuperado na nossa primeira busca. Finalmente, uma busca pela mesma sequência de notas utilizando a opção de incluir as transposições do *incipit* musical (*music incipit with transpositions*) retornou 43 registros documentais, esta sim incluindo a sonata em lá maior de Albinoni.

The screenshot shows a web browser window with the URL www.rism.info/en/service/opac-search.html. The search results are for the term 'FGFBAGFA'. The page is titled 'Result(s) International Inventory of Musical Sources (RISM) (10)'. There are 10 results listed, each with a checkbox and a number. The results include details such as the composer, the title, and the source information. The left sidebar contains various filters: Genre (Lieder, Concertos, Duets, Folk songs, Part songs), Composer (Schulz, Borsini, Baumann, Bovei, Dittersdorf), Source type (Manuscript, Autograph, Print, Possible autograph), Scoring (V, Baritone, Coro, S. orch, vi), Year (1764, 1785-1779, 1788-1794, 1795), and Library siglum (A-ST, CH-E, D-ALTBethmannshöllweg).

Figura 3 – Resumo dos resultados da busca pelo *incipit* musical FGFBAGFA na base de dados RISM⁶

Embora o número de resultados na busca dependesse da opção utilizada em cada caso, em termos gerais o RISM sugere fortemente o uso do campo específico para buscas específicas. Assim, se formos tentar recuperar registros pelo seu *incipit* musical (utilizando os campos destinados para tais fins, com ou sem transposição), o número de notas recomendado a ser procurado não deveria ser menor que sete. Ainda, cabe considerar que os *incipits* musicais no RISM não são normalizados, podendo aparecer variações no que poderia ser considerada a mesma obra. Finalmente, cabe lembrar que nem todo registro no catálogo RISM inclui *incipit* musical, condicionando assim o eventual resultado a buscas transversais (por

6 Busca realizada em <http://www.rism.info/en/service/opac-search.html> 5 julho 2014.

cruzamento com buscas segundo parâmetros complementares), que se façam necessárias.

Algumas considerações em prol da inclusão de repertórios musicais

Como vemos, o uso exclusivo das notas musicais no sistema de busca do RISM tenciona a recuperação do maior número de resultados possíveis, porém a impossibilidade de utilizar os outros aspectos que fazem parte do discurso musical escrito (tais como tipo de compasso, articulação métrica, e/ou oitava específica das notas), dificulta outros tipos de buscas. No que diz respeito aos novos repertórios a serem inseridos, como vimos nos exemplos 1 e 2, seria preciso expandir a codificação das notas para sons de altura não tradicional (como a voz falada, ruídos, etc.) além de desenvolver formas de parametrizar durações não proporcionais ou indeterminadas no documento musicográfico.

Nesse sentido, quando a notação musical não tradicional (grafismos, etc.) está dirigida a instrumentos tradicionais da cultura ocidental usados de forma também tradicional, se impõe uma análise e avaliação dos contornos melódicos possíveis.

Por outro lado, quando a notação (tradicional ou não) está dirigida a instrumentos tradicionais da cultura ocidental usados de forma não tradicional (segundo já adiantamos nos casos dos Exemplos 1 e 2), assim como a instrumentos experimentais (i.e. microtonais, Smetak, eletrônicos, etc.) ou não tradicionais (qualquer outro objeto utilizado musicalmente), seria necessário analisar as possibilidades heurísticamente parametrizadas na tentativa de codificar os vários contornos e proporções melódicas possíveis e esperáveis.

A inclusão das diversas versões do *incipit* do mesmo momento do documento musical atribuídos ao mesmo instrumento dependerá do compromisso entre a complexidade do discurso musical implícito e o bom senso do catalogador.

Assim sendo, parece-nos evidente que, no intuito de incluir o conjunto documental musicográfico gerado durante o século passado, seria preciso expandir o código atualmente utilizado no registro da informação musical extraída da documentação musicográfica e eventualmente acrescentar opções (campos, etc.) que atendam à necessária descrição das fontes documentais ou, inclusive, desenvolver novos sistemas que permitam a codificação e recuperação de melodias parametrizadas heurísticamente.

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HISTÓRICO E TRATAMENTO DE ACERVOS MUSICAIS NA BIBLIOTECA NACIONAL

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Resumo: Apresenta o histórico e a situação atual da Divisão de Música e Arquivo Sonoro da Fundação Biblioteca Nacional, o maior centro de documentação musical da América Latina. Descreve as principais atividades da Divisão e seus desafios, com ênfase na composição do acervo, seu tratamento técnico e possibilidades de atendimento proporcionadas pelos serviços online.

Palavras-chave: Biblioteca Nacional (Brasil). Divisão de Música e Arquivo Sonoro; Bibliotecas de música – Brasil; Bibliotecas – Coleções especiais.

HISTORY AND TREATMENT OF MUSICAL COLLECTIONS IN THE NATIONAL LIBRARY

Abstract: Presents the history and current situation of the Division of Music and Sound Archive of National Library Foundation of Brazil, the largest center for musical documentation of Latin America. Describes the main activities of the Division and its challenges, with emphasis on the composition of the collection, its technical treatment and the care possibilities provided by online services.

Keywords: National Library (Brazil). Division of Music and Sound Archive; Music libraries – Brazil; Library special collections.

Colecionismo musical: a formação de acervos

Que o colecionismo é uma atividade inerente ao ser humano ninguém duvida: todos somos seduzidos e estimulados a acumular artefatos – em algumas esferas para construir um patrimônio, em outras como uma forma de diversão, mas sempre como um mecanismo diferencial na construção de uma identidade. Exemplo típico disso são as bibliotecas nacionais, nascidas como demonstração de acumulação de conhecimento dos monarcas europeus e que, modernamente, servem como uma amostra fidedigna da identidade cultural do país a que servem, através da acumulação e tratamento de sua produção bibliográfica e documental.

No caso do colecionismo musical, pode-se dizer que em determinada época ele prescindiu dos objetos, sendo focado nos compositores e instrumentistas, artistas que, no período clássico, viviam sob os auspícios da realeza a fim de exibir seu talento nos círculos sociais da Corte. Em determinados casos cabia-lhes o cargo de *Kapellmeister*, o mestre da capela, responsável por compor e dirigir oficialmente a música executada para a nobreza. Mozart, para citarmos um exemplo bastante conhecido, ainda enquanto criança prodígio apresentou-se para a corte da Áustria e, mais tarde, tornou-se compositor lá mesmo, antes de abdicar da vida de “empregado” para buscar uma composição própria e emancipada dos interesses reais. Ainda assim, os artefatos musicais já existentes – partituras, manuscritos, libretos – atraíam o interesse dos nobres e grandes coleções destes documentos foram-se formando durante os séculos XVIII e XIX.

No final do século XIX, a tecnologia propiciou o aparecimento das mídias para registros e gravação sonoras, em cilindros de cera e, principalmente, placas circulares negras de goma laca para reprodução em gramofones: os discos de 78 rpm. Este foi um marco

importante no colecionismo musical – e, evidentemente, o embrião de um mercado ainda desconhecido que viria a movimentar somas incalculáveis de dinheiro a partir de meados do século XX, o *show business*. Dos discos de 78rpm, passando pelas fitas de rolo, pelos long-plays de 33 rpm, pelas fitas cassete e tantos outros suportes, até chegarmos aos recentes formatos digitais, uma história de colecionismo se desenvolveu no mundo inteiro. Não só bibliotecas e centro de documentação se dedicaram a armazenar e disponibilizar este tipo de acervo, mas enormes coleções particulares cresceram e chamaram a atenção, inclusive com fins comerciais. O melhor exemplo é o da loja conhecida como Record-Rama, mantida pelo colecionador Paul Mawhinney em Pittsburgh, Estados Unidos. Mawhinney, que iniciou sua coleção particular em 1951, ao inaugurar a loja decidiu manter e arquivar uma cópia de todo disco que vendesse. Por fim, em 2008, a loja foi fechada com um acervo de cerca de 3 milhões de discos, entre compactos e LPs de vinil – uma coleção pelo menos duas vezes maior do que a da Library of Congress, e que inclui um dos primeiros discos de goma-laca, fabricado em 1881.

Mawhinney possuía elementos importantes para a composição de um acervo tão extenso: verba e contatos no mercado fonográfico, fornecedores para a loja que certamente contribuíram para a construção desse ícone do colecionismo musical. Ele afirmava que mantinha a loja porque cada vez que um cliente entrava procurando por alguma raridade sentia-se “fazendo parte da raça humana”. Sem dúvida, a missão de toda biblioteca, de todo centro de documentação, é proporcionar aos seus usuários o contato com a peça, rara ou não, de que necessita – uma missão de humanidade e de compromisso com a pesquisa e o crescimento científico. Uma das instituições brasileiras que mais se dedicam a esta tarefa é a Fundação Biblioteca Nacional, através de sua Divisão de Música e Arquivo Sonoro que, assim como a Record-Rama de Paul Mawhinney, também tem sua história e seus desafios a enfrentar, que veremos a seguir.

Histórico

Até a década de 50, a coleção de fundos ditos musicais no acervo da Biblioteca Nacional permaneceu diluída no acervo geral da instituição. Junto aos livros, manuscritos, periódicos, fotografias e demais documentos, estavam importantes peças da literatura especializada em música, discos, fitas, partituras e muitos outros elementos potencialmente constituintes de um acervo especializado. Em 1952, o Diretor-Geral da Biblioteca, Eugenio Gomes, iniciou a separação e composição de um acervo exclusivamente musical, abrigado temporariamente nos corredores do prédio-Sede. Entretanto, somente em 1960, através do Decreto 48.108, de 13 de abril, foi criada na estrutura da Biblioteca Nacional a Seção de Música e Arquivo Sonoro; compunha o acervo da Seção o precioso acervo extraído do material da coleção geral, principalmente peças das coleções Real Biblioteca (trazida pela Corte portuguesa ao Brasil em 1808), Thereza Christina Maria (doadada pelo Imperador D. Pedro II) e Imperatriz Leopoldina, todas com peças importantes como primeiras edições de Mozart, Haydn, Beethoven e outros compositores de expressão dos séculos XVIII e XIX – um exemplo de colecionismo musical da nobreza de que já falamos. Posteriormente, somou-se uma coleção particularmente importante como a de Abraão de Carvalho, adquirida em 1950 e recebida em 1953 pelo então Diretor-Geral da Biblioteca Nacional Celso Cunha, que contava com mais de 19 mil títulos e constituía a maior coleção especializada em música da América Latina. Na época, cabia à nova Seção uma pequena sala no quarto pavimento do prédio Sede da Biblioteca. Antes de sua oficialização, em 1960, o acervo ficava acomodado nos corredores do quarto andar.

Capitaneando a estruturação da Seção estava a musicóloga e bibliotecária Mercedes Reis Pequeno, responsável pela Seção até o

ano de 1990. Inicialmente sozinha, Mercedes dedicou-se a identificar e tratar tecnicamente as importantes peças do acervo, começando pelas peças nas coleções Thereza Christina Maria e passando por primeiras edições de compositores nacionais e internacionais; manuscritos autógrafos de importantes compositores brasileiros como Guerra-Peixe, Villa-Lobos, Ernesto Nazareth, Chiquinha Gonzaga, Francisco Mignone; literatura de cordel, arquivos de correspondências, fotografias, recortes, partituras; arquivos sonoros de discos, CDs, fitas cassete e de rolo. Deste trabalho, e da verificação da importância das tipologias documentais contidas numa coleção musical, nasceu o ofício da Direção da Biblioteca pedindo área especial para instalação do arquivo sonoro, em 1971. Em maio de 1981 o Ministério da Educação expediu a Portaria n. 348, cedendo à Biblioteca o espaço do terceiro andar do Palácio Gustavo Capanema, um marco da arquitetura modernista no centro do Rio de Janeiro; assim, em 1982 concluiu-se a mudança da Seção de Música para o antigo prédio do MEC.

A Embratel, Empresa Brasileira de Telecomunicações, esteve presente em vários momentos de evolução importantes do acervo musical da Biblioteca. Em 1993, assinou acordo com a Fundação Biblioteca Nacional (criada em 1990) e com a Sociedade de Amigos da Biblioteca Nacional (Sabin) para iniciar a automação das bases de dados e do Arquivo Sonoro; na época, técnicos da FBN e da Fundação Getúlio Vargas foram consultados para a elaboração das normas específicas para catalogação do acervo musical. Em 1998, seu patrocínio permitiu a reforma física da Divisão, com melhorias no que tange aos padrões e exigências para armazenamento do acervo, restauração e substituição do mobiliário e equipamentos de som e avanços significativos na informatização do acervo, incluindo acesso remoto que, à época, constituía uma novidade importante. Além da reforma física, o projeto da Reforma foi composto de seis módulos, e abarcou as etapas de digitalização de 130 partituras de 16 autores e

conversão para arquivos Midi; criação de banco de dados bibliográfico em MicroISIS para os acervos sonoro e de partituras; criação de banco de dados iconográfico com possibilidade de acesso pela Internet; criação de interface para acesso multimídia online; inventário da coleção de quase 19 mil discos em 78rpm. O banco de dados gerado em MicroISIS foi convertido para o OrtoDocs, software então utilizado pelos demais setores da Biblioteca, em 1999.

Ao longo do tempo, a Divisão de Música marcou presença em diversas exposições da Biblioteca Nacional, propiciando ao público pesquisador a oportunidade de conhecer um pouco de seu precioso acervo. Sob a batuta da chefe da Divisão, Mercedes Reis Pequeno, foram 38 exposições e muitas delas tiveram edição de catálogos. Nesta frutífera história, podemos destacar as seguintes:

1954 – Literatura Musical nos Séculos XVI, XVII e XVIII
Mostra da Biblioteca Abraão de Carvalho

1955 – Edições Raras de Obras Musicais da Coleção Thereza
Christina Maria

1956 – Exposição comemorativa do 2. Centenário de
Nascimento de W. A. Mozart

1959 – Sesquicentenário da morte de Joseph Haydn
Exposição comemorativa do Bicentenário de Morte de Georg
Friedrich Haendel

1960 – Exposição comemorativa do sesquicentenário de
nascimento de Fryderyk Chopin

1962 – Música no Rio de Janeiro Imperial: 1822-1870 (na
apresentação do catálogo da exposição, Adonias Filho,
Diretor-Geral da Biblioteca, diz que “completando seu

primeiro decênio, a Seção de Música revela-se ao grande público em sua inteira significação cultural”)

1963 – Exposição comemorativa do Centenário de Nascimento de Ernesto Nazareth

1964 – Exposição comemorativa do Centenário de Nascimento de Alberto Nepomuceno
Exposição comemorativa do Cinquentenário da Morte de Gaspar Viana e Glauco Velasquez

1965 – Rio Musical: crônica de uma cidade

1967 – Exposição comemorativa do 2º. Centenário de Nascimento de José Maurício Nunes Garcia

1968 – Exposição comemorativa do Centenário de Nascimento de Francisco Braga (com peças da Escola Nacional de Música, Museu do Teatro Municipal, Banda do Corpo de Bombeiros e Banda dos Fuzileiros Navais)

1974 – Três Séculos de Iconografia da Música no Brasil

1977 – Exposição comemorativa do 60. Aniversário da estada de Darius Milhaud no Brasil (1917-1918)

1978 – Exposição comemorativa do tricentenário de nascimento de Vivaldi

1979 – Instrumentos musicais de indígenas brasileiros

1983 – Acervo Precioso, mostra do acervo geral da BN em que compareceu com 9 peças da Coleção Abraão de Carvalho

1991 – Mozart no Rio de Janeiro oitocentista

1999 – 100 Anos de Nascimento de Ataulfo Alves

Mais recentemente, a Biblioteca promoveu as mostras “É com esses balangandãs que eu vou: 100 anos de Carmen Miranda na Biblioteca Nacional” (2009), “Villa-Lobos: o educador das massas” (2009) e “100 Anos de Herivelto Martins” (2010). Em 2011, em homenagem à bibliotecária que chefiou a Dimas por quase quarenta anos, a Divisão organizou a mostra “90 Anos de Mercedes Reis Pequeno”.

Situação atual

A atual Divisão de Música e Arquivo Sonoro (Dimas), integrante da Coordenadoria de Acervo Especial do Centro de Referência e Difusão da Biblioteca Nacional, é o maior centro de documentação musical da América Latina. Composta de mais de 250 mil peças, a maior coleção é a de partituras, com mais de 237 mil exemplares; a estas somam-se livros, periódicos, programas de concerto, discos de 78 rpm, discos de vinil em 45 rpm e 33 rpm, CDs, DVDs, obras raras e fotografias. A Dimas é uma exceção dentro da estrutura da Biblioteca Nacional: enquanto todos os demais setores de guarda de acervo são determinados por sua tipologia documental, a Divisão de Música é uma biblioteca temática. Os pesquisadores que lá se encontram deparam-se com uma vitrine de peças significativas, como o violino de estudos do Maestro Guerra-Peixe, batutas, instrumentos musicais e memorabilia em geral. Na sala também há um piano de armário, comprado na década de 80, e utilizado pelos usuários da Divisão para reconhecimento de partituras.

A literatura de cordel está presente em pequeno número no acervo desde 1985, quando o pesquisador Bráulio Nascimento, assessor da Direção da Biblioteca, solicitou à Seção de Música que tratasse e armazenasse os cordéis. Por decisão de Comissão Interna

responsável pela avaliação dos acervos, decidiu-se manter na Dimas apenas os folhetos lá depositados desde 1985 até 2008; o acervo corrente passou a ser depositado na Divisão de Obras Gerais, onde teve um incremento substantivo por conta de uma ação conjunta entre órgãos detentores de acervos dessa natureza, para inventário e distribuição de duplicatas. Tal ação foi motivada pela solicitação do registro do cordel como Patrimônio Imaterial brasileiro junto ao Iphan em 2012, em consonância com as iniciativas do próprio Ministério da Cultura para a valorização do cordel como expressão genuína da cultura brasileira.

Em 2009, o acervo da Divisão obteve um importante reconhecimento ao inscrever a coleção dos manuscritos musicais de Carlos Gomes no registro nacional do Programa Memória do Mundo da Unesco – um dos seis conjuntos documentais da Biblioteca que já foram reconhecidos pelo Programa. Fazem parte da coleção os originais das óperas “Fosca”, “Salvator Rosa”, “Maria Tudor” e “Il Guarany”, esta última famosa por ser a vinheta de abertura do programa radiofônico “A Voz do Brasil”, de divulgação oficial do Governo Federal.

Para cuidar desse acervo tão especial, a Dimas conta com uma equipe de dezesseis pessoas, entre bibliotecários, técnicos em documentação e estagiários. Atende uma média mensal de 100 pessoas, dando acesso a cerca de 500 documentos por mês. Em 2013, já foram incorporados ao acervo mais de 300 álbuns, cerca de 300 CDs, 300 partituras e quase 900 fascículos de periódicos especializados. Atualmente, estão disponíveis na busca em seus catálogos mais de 30 mil partituras, 10 mil discos e cerca de 8 mil livros. Todo o material corrente está sendo catalogado segundo as normas do Código de Catalogação Anglo Americano 2ª. ed., usando a lista de cabeçalhos de assunto da BN, baseada na lista da Library of Congress.

Desafios da Biblioteca Nacional: Depósito Legal e direitos autorais

Sendo a Biblioteca Nacional um acervo prioritariamente de memória e preservação, os desafios para manter a coleção são grandes numa era de acesso instantâneo a informação e crescente valorização do efêmero. A Biblioteca Nacional do Brasil é a única beneficiária do mecanismo do Depósito Legal em âmbito nacional: a Lei 10.994, de 2004, prevê que pelo menos um exemplar de “todas as publicações, produzidas por qualquer meio ou processo, para distribuição gratuita ou venda” (Brasil, 2004) em território brasileiro seja encaminhado para composição do acervo da Biblioteca Nacional. Em 2010, essa legislação foi reforçada com a promulgação da Lei 12.192, que trata especificamente do depósito de obras musicais e diz que “Para os efeitos desta Lei, consideram-se obras musicais partituras, fonogramas e videogramas musicais [...]” (Brasil, 2010). Consultada sobre a viabilidade técnica da execução do proposto nesta Lei, a Biblioteca Nacional posicionou-se contrariamente, dado que, no âmbito de uma biblioteca, todo material constituinte de acervo é material bibliográfico – portanto, contemplado no escopo da Lei 10.994. De outro modo, a redação de uma segunda lei versando sobre o mesmo tema dá a entender que partituras, fonogramas e videogramas não seriam publicações. No mesmo parecer, foi colocada a necessidade de sanar-se o real problema da legislação brasileira do Depósito Legal: o fato de que a primeira lei – e, posteriormente, nenhuma das duas leis – foi regulamentada, o que impacta profundamente em seu efetivo cumprimento. Ainda na década de 90, representantes de grandes gravadoras foram convidados a comparecer em cerimônia na Biblioteca, ocasião em que se comprometeram a encaminhar sua produção.

Contudo, é possível inferir que a promulgação da nova lei não teve impacto nenhum no cumprimento do Depósito Legal por parte dos depositantes, uma vez que nos dois anos de maior captação (2011 e 2012) a Divisão de Depósito Legal teve um funcionário dedicado exclusivamente ao contato com editoras e gravadoras para cobrança deste tipo de material, e quando esta dedicação não foi mais possível, a captação caiu novamente.

Tabela 1 – Captação de materiais musicais via Depósito Legal

	2010	2011	2012	2013*	TOTAL
CDs	789	1317	1080	371	3557
DVDs	101	199	282	100	682
Partituras	4	36	10	1	51
TOTAL	894	1552	1372	472	4290

* parcial até setembro

Um dos grandes problemas para a manutenção do Depósito Legal como fonte exaustiva de captação de material sonoro é o fato de não haver regulamentação razoável do depósito de material digital. A Lei 12.192, específica para depósito de obras musicais, prevê o envio de duas cópias da obra em qualquer formato, mais uma terceira cópia em formato digital. Com os problemas de espaço cada vez mais graves que a Biblioteca vem enfrentando há muito tempo, informados desde a década de 40 por seus dirigentes em seus relatórios, uma captação de cópias nesta rotina torna-se inviável. Assim, as responsáveis pela curadoria do acervo e pela captação do Depósito Legal, considerando que a exigência para materiais bibliográficos da Lei 10.994 é de “no mínimo um exemplar”, e que a conversão para o formato digital poderia ser feita no momento mais oportuno para a Biblioteca, decidiram pela exigência de apenas um exemplar também das obras musicais.

Além do Depósito Legal, concorrem para a composição do acervo da Divisão, doações e permutas recebidas das mais diversas fontes. Podemos destacar as doações periódicas oferecidas pelo sr. Fernando Guerra-Peixe, estudioso do samba de carnaval carioca, que gentilmente atualiza a coleção de periódicos da escola Estação Primeira de Mangueira com as publicações relativas aos desfiles da Escola no Carnaval carioca. Recentemente, trabalhando junto à Liga Independente das Escolas de Samba do Rio de Janeiro (Liesa), está compilando a história da instituição e mapeando o material por ela já publicado, compondo uma coleção preciosa sobre o samba e o carnaval carioca que será armazenada e tratada na Biblioteca.

Para cumprir seu papel de acervo de memória, é imperativo o investimento em condições de preservação e restauração, bem como um incremento constante no espaço para acomodar a coleção que cresce sem parar. Para tanto, foi montada ainda em 2005 uma estação de trabalho da Coordenadoria de Preservação junto à Dimas, responsável exclusivamente pela higienização e preservação das peças do acervo da Divisão. Esta ação veio ao encontro de uma necessidade que foi mostrando-se cada vez maior, como, por exemplo, na ocasião da higienização das quase 2 mil partituras da coleção Pascoal Segretto, em 1993, posteriormente acondicionadas em doze caixas exclusivas. Estão em estudo também propostas para a otimização da área de acervo, atualmente com cerca de 280m², como a instalação de estanterias deslizantes e armários e um arquivo deslizante para armazenamento de CDs e DVDs no arquivo sonoro, com área atual de pouco mais de 60 m². Além disso, a instalação de um ar-condicionado que melhore as condições térmicas está sob avaliação e em breve um sistema de detecção e alarme contra incêndios deverá ser instalado. É importante lembrar que estas iniciativas precisam contar com a anuência não só da administração

da FBN, mas também do condomínio do Palácio Capanema, edifício tombado pelo Iphan e cujas obras necessitam de prévia aprovação.

Também estão em projeto ações de remodelação da área dedicada às exposições, incluindo o desenho de novo mobiliário e a transferência do balcão de recepção e atendimento para o hall de entrada, melhorando também a segurança do acervo. Nesse mesmo sentido, está em andamento a implantação de um sistema de segurança eletrônico, incluindo circuito fechado de câmeras integrado aos sistemas do prédio-Sede do Palácio Capanema.

Todas as ações de preservação são fundamentais para o cumprimento da missão da Biblioteca, mas também é crucial permitir o acesso ao material. No momento, o acesso ao conteúdo dos DVDs da Divisão está prejudicado pela falta de equipamentos para reprodução. Entretanto, em outra frente de trabalho, uma parceria com a Biblioteca Nacional Digital se dedica a digitalizar acervos antigos e de obras em domínio público, a fim de permitir o acesso remoto aos materiais preciosos da coleção. Exemplo disso são os catálogos das exposições já citadas, que encontram-se disponíveis para consulta no site <http://bndigital.bn.br>, e o projeto Passado Musical, de que falaremos mais adiante.

É evidente que nem tudo que há no acervo pode ser disponibilizado por uma questão delicada e que atinge não só a pesquisa em música, mas em todas as áreas: os direitos autorais dos envolvidos nas obras consultadas, atualmente regidos pela Lei 9610/98. Estas restrições dificultam não só a disponibilização das obras para consulta, mas principalmente a sua reprodução. É importante entender que no conceito de direito autoral de uma obra estão contemplados os aspectos morais, de criação, e patrimoniais, de natureza econômica. Quando da criação de uma obra, é seu autor o detentor de todos os direitos incidentes, morais e patrimoniais. Se eventualmente o autor ceder o direito patrimonial, ainda assim será o

detentor do direito moral, sendo o direito patrimonial então propriedade do “Titular”.

No âmbito específico da criação musical, estão protegidas pela legislação autoral as composições musicais, letradas ou não, e as obras audiovisuais, sonorizadas ou não, incluindo obras cinematográficas. Em se tratando especificamente de obras musicais, incidem também sobre elas os chamados direitos conexos, relativos exclusivamente à reprodução ou execução da obra. Nesta categoria incluem-se os direitos dos intérpretes ou executantes da obra, dos produtores fonográficos e das empresas de radiodifusão. Entretanto, se a melodia for transposta para partitura por um terceiro não envolvido na composição ou execução, este não é considerado autor e, portanto, não tem direitos autorais.

Na prática, ocorre que para as composições musicais os autores, tanto de letra quanto de melodia, cedem seus direitos patrimoniais às editoras. No que tange às obras audiovisuais, considera-se que a obra é a execução de uma concepção do diretor e ele, portanto, é o detentor dos direitos morais. A lei 9.610/98, entretanto, abre uma brecha neste item e considera coautores da obra audiovisual o autor do argumento e o diretor. Os compositores das trilhas sonoras de obras audiovisuais, portanto, autorizam o uso de sua composição, ou cedem ou transferem os seus direitos patrimoniais para o produtor da obra. Em se tratando de animações, os ilustradores também são considerados coautores, que, do mesmo modo que os compositores de trilhas sonoras, cedem seus direitos patrimoniais em favor do diretor. Atualmente, o prazo de proteção dos direitos patrimoniais do autor de obras audiovisuais é de 70 anos, a contar de 1º. de janeiro do ano seguinte ao da divulgação da obra. Do mesmo modo, os direitos conexos relativos aos fonogramas também perduram por setenta anos. Findo esse prazo, as obras caem no

chamado domínio público, aquele conjunto de obras cuja vigência de direitos patrimoniais já expirou.

Além de todas estas particularidades, a Lei 9.610/98 ainda impõe uma série de restrições específicas para obras fonográficas e audiovisuais; por exemplo, o seu artigo 29, par. VIII, prevê que depende de autorização prévia do autor a utilização da obra, direta ou indireta, mediante execução musical, radiodifusão sonora ou televisiva, sonorização ambiental, exibição audiovisual, entre outros. Ou seja: como se vê, existe uma miríade de exigências a serem observadas para garantir o acesso ao material, mesmo – e principalmente – aquele armazenado na Biblioteca Nacional.

Produtos, serviços, divulgação do acervo

Com um acervo tão precioso, é natural que a Divisão de Música tenha material suficiente para gerar produtos e serviços à comunidade. Além das já citadas grandes exposições, periodicamente a Dimas faz pequenas mostras homenageando efemérides. A Biblioteca também se encarrega de fomentar o acesso ao acervo através do investimento em projetos e eventos e na melhoria de suas ferramentas de gerenciamento dos acervos.

Os eventos estão na pauta da Divisão desde o início. Em 1978, por ocasião da criação de um Centro de Documentação da Música Europeia do Século XX, promoveu-se um concerto de quarteto de cordas da Escola de Música da UFRJ. O Centro foi criado com doações de seis países, que em conjunto doaram 165 partituras e dez discos para compor o acervo inicial que, infelizmente, não teve continuidade. Em 1994, promoveu-se o Festival Lizst, uma apresentação de peças do compositor húngaro interpretadas por pianistas brasileiros. A Biblioteca Nacional também é palco do Projeto Música no Museu

desde 2004. O projeto foi inaugurado em 1997 pelo violonista Turíbio Santos no Museu Nacional de Belas Artes e recebeu a Ordem do Mérito Cultural em 2008 e o título de Instituição Educacional em 2013. A ideia é aproveitar-se do espaço de museus, bibliotecas, centros culturais e igrejas para promover concertos gratuitos de música erudita e popular, e foi expandido para outras cidades com o mesmo êxito do Rio de Janeiro.

É preocupação também da Dimas funcionar como centro de e para capacitação em documentação musical. Já em 1978, também por ocasião da criação do Centro de Documentação de Música Europeia, o maestro Hans-Joachim Koellreutter, Diretor do Instituto Cultural Brasil-Alemanha, ministrou um ciclo de oito palestras intitulado "Introdução à Música do Século XX". Em 1995, a equipe da Divisão de Música e Arquivo Sonoro preparou e ministrou um curso sobre coleções especiais na área de música, para oferecer subsídios para a organização e processamento técnico destes acervos. Em 1996, a Biblioteca assessorou com o acervo da Dimas o projeto de dissertação de mestrado do maestro Silvio Barbato, de uma reedição crítica de "O Guarani", de Carlos Gomes. A dissertação, defendida na Universidade de Chicago, seria sucedida por uma tese de doutorado na mesma universidade, mas os planos de Barbato foram interrompidos pelo seu precoce falecimento em 2009. No mesmo ano, com patrocínio da Embratel, teve continuação a digitalização das partituras do acervo da Dimas através da instalação da interface Midi, iniciada com as partituras de Ernesto Nazareth.

De todos os projetos e iniciativas de difusão do acervo musical da BN, certamente o mais robusto é o projeto Passado Musical. Inicialmente um projeto capitaneado pela PUC-Rio, tendo por base o acervo da Biblioteca Nacional e patrocínio da Petrobras através da Lei Rouanet, o projeto se propunha a digitalizar e disponibilizar as

músicas contidas em discos de 78rpm. O projeto iniciou em 2005, com a seleção de cerca de 4 mil discos em goma laca ou acetato, de música brasileira, do acervo da Dimas. A seleção do acervo foi feita com base na Enciclopédia da Música Brasileira e na Discografia Brasileira 78rpm, duas obras de referência na área. Para serem tratados, os discos foram higienizados e acondicionados em novos envelopes no novo Núcleo de Conservação, lá instalado para tratar exclusivamente destes materiais. A etapa posterior, de tratamento técnico, envolveu o desenvolvimento de um banco de dados pelo Lambda – Laboratório de Automação de Museus, Bibliotecas Digitais e Arquivos. O sistema foi baseado no software ISIS da Unesco, e teve adaptações como máscara para preenchimento de campos Marc e ISAD (Descrição Arquivística Internacional Padronizada).

Inicialmente, as músicas foram digitalizadas em formato .wav e .mp3 pela empresa DocPro e armazenadas em banco de dados da PUC-Rio. Na catalogação e indexação das músicas, inicialmente realizados por uma arquivista e quatro estagiários, foram atribuídos assuntos em português e inglês, sem controle de autoridade – ou seja, sem a devida padronização. Mais tarde, o banco de dados com cerca de 8 mil músicas foi cedido integralmente à Biblioteca Nacional; na migração, foram acrescentados campos Marc ao formulário de inserção de dados, permitindo inclusive a atribuição de URLs para os arquivos digitais. As peças em domínio público são disponibilizadas na íntegra, e as demais possuem apenas 10 segundos disponíveis online, sendo sua consulta integral permitida somente na própria Divisão.

A interface de busca e o armazenamento destas obras foram incrementados significativamente no ano de 2013, com a aquisição e implantação integral do novo datacenter da Biblioteca, com capacidade total de 2 petabytes de armazenamento. Também é notável a melhoria no tratamento e recuperação da informação

propiciada pela migração para o software gerenciador de bibliotecas Sophia, instalado em 2013. Mais amigável e intuitivo, o banco de dados possibilita a exportação de dados também no padrão Dublin Core e, como projeto em andamento, a BN Digital trabalha na instalação de um banco com permissão de *streaming* para reprodução integral dos arquivos de áudio. Os arquivos da Dimas disponíveis para consulta online incluem também cerca de 150 arquivos .mid de músicas em domínio público, pouco menos de mil partituras pertencentes à Coleção Thereza Christina Maria e cerca de 100 libretos da Real Biblioteca, todos em arquivos antigos, digitalizados ainda fora do padrão que hoje a Biblioteca Nacional Digital exige.

O software Sophia também será implantado para os acervos bibliográficos da BN, integrando todas as bases de dados dos diversos acervos em uma só busca. Numa primeira etapa, a ser concluída ainda em 2013, serão migradas para o Sophia as bases de livros, periódicos e autoridades; posteriormente as bases dos acervos especializados serão incorporadas – entre elas, a da Divisão de Música e Arquivo Sonoro.

Entre artefatos históricos, nobres coleções, diversidade de formatos de registro e armazenamento e o desafio da música digital, a Dimas procura fazer jus ao tamanho de seu acervo e de sua responsabilidade como maior centro de documentação musical da América Latina, integrante de uma das dez maiores bibliotecas do mundo. Infelizmente, o senhor Paul Mawhinney, que antes sentia-se parte da raça humana ao ajudar os clientes com suas raridades, desistiu do negócio e, melancolicamente, entendeu que “ninguém dá a mínima” para o trabalho ao qual dedicou sua vida inteira. Crítico da música digital, para ele os discos de vinil é que conservam a música em sua íntegra, sem a compressão de agudos e graves causada pela conversão para o formato digital. A Library of Congress avaliou sua

coleção de LPs do período entre 1948 e 1966, e identificou que apenas 17% de todo o material está disponível em CDs. Apesar disto, não se interessou em adquirir o acervo, provavelmente pelo valor elevado de uma coleção deste porte. Ou seja: preservar os artefatos musicais deve ser uma tarefa conjunta, desempenhada por diversas instituições, que também tenham em mente a filosofia da Biblioteca Nacional de servir de referência para as futuras gerações. O essencial é manter-se fugindo da ideia de que “ninguém dá a mínima” para a cultura e buscando seu espaço com a promoção adequada de seu acervo.

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Paul Whitehead graduated in Music from Edinburgh University, where his teachers included Peter Williams and Kenneth Leighton. He moved on to London University where he studied with Geoffrey Chew for the M.Mus degree, specialising in Music Theory. As graduate student and teaching assistant at the University of Pennsylvania he focused on Musicology, graduating with the PhD

in 1996. His primary research area was seventeenth-century German instrumental music; a British Council scholarship allowed him to pursue additional research projects in the Czech Republic. Whilst in the United States he was a member of a number of various early-music performing groups. As a harpsichordist and basso continuo player he was a founder member of the Penn Baroque Ensemble, and he also performed as part of the early-music choir Ancient Voices, directed by Alexander Blachly. After receiving his doctorate, he taught as a lecturer at the University of Pennsylvania and Assistant Professor at Franklin and Marshall College. A member of the faculty of MIAM since its opening in 1999, he has taught courses in Musicology, Music Theory and Musicianship. His research interests have included Italian, German and English Baroque music. In addition, he has co-edited a book on Spectral Music, and reports on Turkey for *Fontes Artis Musicae* and RILM. As a performer, he has played with chamber orchestras and Baroque ensembles in Istanbul.

Paul Whitehead graduou-se em Música pela Universidade de Edimburgo, onde seus professores incluíram Peter Williams e Kenneth Leighton. Prosseguiu na Universidade de Londres, onde estudou com Geoffrey Chew para o grau Mestre em Música, especializando-se em Teoria Musical. Como estudante de pós-graduação e professor assistente na Universidade da Pensilvânia, concentrou-se em Musicologia graduando-se com o PhD em 1996. Sua área de investigação principal foi a música instrumental alemã do século XVII; uma bolsa do Conselho Britânico permitiu-lhe ter projetos de investigação adicional na República Checa. Enquanto residiu nos Estados Unidos, tornou-se membro de vários grupos de música antiga. Como cravista e executante de baixo continuo, foi membro fundador do Conjunto Barroco Penn, e também se apresentou como parte do coral de música antiga *Vozes Antigas*, dirigido por Alexander Blachly. Depois de receber o seu doutorado,

lecionou como professor na Universidade da Pensilvânia e Professor Assistente no Franklin e Marshall College. Membro docente do Centro para Estudos Musicais Avançados da Universidade Técnica de Istanbul (MIAM-ITU) desde a sua inauguração em 1999, onde ministrou cursos em Musicologia, Teoria Musical e Habilidades Musicais. Seus interesses de pesquisa incluem música barroca Italiana, Alemã e Inglesa. Além disso, ele coeditou um livro sobre música espectral e relatórios sobre a Turquia para o periódico *Fontes Artis Musicae* e *RILM*. Como intérprete, tocou com orquestras de câmara e conjuntos Barrocos em Istambul.

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REUBEN DE LAUTOUR

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Reuben de Lautour is a composer, sound artist, and pianist. He composes music for solo or ensemble instruments and electronics, and writes about music, technology and listening practices. He teaches instrumental and electroacoustic composition at Istanbul Technical University - Centre for Advanced Studies in Music (MIAM-ITU), where he founded the Program in Sonic Arts in 2012. His music has been performed and recorded by artists such as Evelyn Glennie, the Nash Ensemble, and UMS'n JIP. Before coming to Istanbul he studied composition at Princeton University with Paul Lansky and Steven Mackey, and piano and composition at the University of Auckland with Bryan Sayer, John Rimmer and John Elmsly.

Reuben de Lautour é um pianista, compositor e artista sonoro. Ele compõe música solo ou para conjuntos instrumentais e

electrónica, e escreve sobre música, tecnologia e práticas de escuta. Ele ensina composição instrumental e eletroacústica no Centro para Estudos Musicais Avançados da Universidade Técnica de Istanbul (MIAM-ITU), onde fundou o programa em Artes Sônicas em 2012. Sua música foi executada e gravada por artistas como Evelyn Glennie, o Nash Ensemble e UMS'n JIP. Antes de chegar a Istanbul, estudou composição na Universidade de Princeton com Paul Lansky e Steven Mackey e piano e composição da Universidade de Auckland com Bryan Sayer, John Rimmer e John Elmsly.

ROBERT REIGLE

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Robert Reigle teaches ethnomusicology in the graduate program of the Centre for Advanced Studies in Music, where he created the first ethnomusicology doctoral program in Turkey. He received his ethnomusicology doctorate from the University of California, Los Angeles, with a dissertation about sacred music from Madang Province, Papua New Guinea. In 1993, he convened the second New Guinea Ethnomusicology Music Conference and edited its proceedings. He co-organized the Istanbul Spectral Music Conference, developing a new unified perspective on timbre, with ethnomusicologists, composers, musicologists, performers, and educators (proceedings published by Pan Yayincılık, 2008).

Robert Reigle ensina etnomusicologia no Programa de Pós-graduação do Centro para Estudos Musicais Avançados da Universidade Técnica de Istanbul (MIAM-ITU), onde criou o primeiro programa de Doutorado em Etnomusicologia na Turquia. Obteve o seu Doutorado em Etnomusicologia da Universidade da

Califórnia, Los Angeles, com uma dissertação sobre a música sacra da província de Madang, Papua Nova Guiné. Em 1993 convocou a segunda conferência de música de Etnomusicologia da Nova Guiné e editou os seus anais. Ele co-organizou a Conferência de Música Espectral de Istambul, desenvolvendo uma nova perspectiva unificada sobre timbre, com etnomusicólogos, compositores, musicólogos, artistas e educadores (anais publicados por Pan Yayincılık, 2008).

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VALIA VRAKA

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Valia Vraka has been working in the Music Library of Greece “Lilian Voudouri” since 2002. In the period 2002-2006 she worked as an assistant musicologist for the Mikis Theodorakis Archive and since 2006 she has been working as a musicologist, head of the Greek Music Archive, having as main object the collection, classification and documentation of the Greek archival material. She has participated in the group that materialized the programme “Creation of a unit of documentation and promotion of Greek music”, which was supported by the operational programme “Information Society” (3rd Community Support Frame/CSF, 2000-2006), and, following that, she became the head of the group who worked for the increase of the digital collection which was accomplished due to the donation of the National Bank of Greece (2009-2011). She has also worked for the elaboration of an original study for the online project “MOU.SA.” and, finally, at present she is working for the project “«Euterpe: Songs for schools – Digital Music

Anthology» which is carried out in cooperation with Greek Society for Music Education G.S.M.E.

Valia Vraka trabalha na Biblioteca de Música da Grécia “Lilian Voudouri” desde 2002. No período 2002-2006 trabalhou como musicólogo assistente no arquivo de Mikis Theodorakis e desde 2006 tem trabalhado como musicólogo, Chefe do Arquivo de Música Grega, tendo como principal objeto a coleta, classificação e documentação do material de arquivo Grego. Participou do grupo que se materializou no programa “criação de uma unidade de documentação e divulgação da música grega,” que foi apoiado pelo programa operacional “Sociedade da informação” (3º Community Support Frame/QCA, 2000-2006) e, em seguida, se tornou o chefe do grupo que trabalhou para o aumento da coleção digital realizado por meio de doação do Banco Nacional da Grécia (2009-2011). Ela também trabalhou para a elaboração de um estudo original para o projeto on-line “MOU.SA.” e neste momento está trabalhando para o projeto “Euterpe: canções para escolas – Antologia Digital de Música” realizado em cooperação com a sociedade grega para Educação Musical (G.S.M.E.).
