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Standing Committee for the Humanities (SCH)

Musicology (Re-) Mapped

Discussion Paper

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European Science Foundation (ESF)

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Cover picture:

Gradual of the Cisterian monastery in Kamieniec Zabkowicki (13th c.).
Notae musicae artis. Musical notation in Polish sources 11th-16th century, ed.
by Elzbieta Witkowska-Zaremba. Musica Jagellonica, Kraków 2001, p. 24.

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Foreword



Although music is perceived as thriving in its significant contribution to the flourishing of cultural industries, musicology as a research field seems to play a much more modest role in the landscape of European research activities and funding priorities. While music is a pervasive cultural as well as psychological phenomenon, musicology as the main discipline studying music faces scholarly as well as institutional fragmentation. These kind of societal and academic challenges led the ESF Standing Committee for the Humanities (SCH) to identify musicology as a strategic priority area as far back as 2008.

The relevance of musicology as a discipline resides in the fact that it represents an interdisciplinary paradigm of the humanities. However, its further diversification into rather specialised fields as well as its institutional fragmentation call for more inclusive international collaborative models. While the plurality of research and constant redefinition of the discipline could be perceived as a sign of vitality, the limited visibility of some sub-disciplines of musicology deserves attention and action in terms of comprehensive institutional frameworks, cohesive scholarly activities and responsive funding priorities.

The main challenge musicology faces is indeed the insufficient understanding of the role it plays in everyday musical culture or, even more generally, in everyday life as such. For instance, despite the strong engagements of some sub-disciplines of musicology (e.g., ethnomusicology) with cultural contexts and political discourse, the relationships between musicology on the one hand and performing music as well as commercial forces on the other are not explicit.

In the academic context, some tensions between musicology as a descriptive discipline and music performance as a growing field may be observed, while at the same time the surge of music as an object of cognitive science research – confirmed also by activities funded under the ESF umbrella (see pages 10-11) – has gained pace. Last but not least, although musicology has played a pioneering role in the computing humanities and information sciences, the development of research infrastructures for musicology and the challenge of their sustainability are pressing for action within funding models and cooperation strategies.

In November 2009, to reflect on these issues and challenges, the SCH organised a Strategic Workshop with the participation of 15 scholars representing different European research centres and sub-disciplines of musicology (the list of participants is included in the Annex on page 28). Discussions at the workshop revealed a wide range of opinions about the condition and the social role of European musicology depending on the individual experience of participants coming from diverse institutional and cultural environments and representing different sub-disciplines of musicology.

Consequently, SCH Core Group member Ewa Dahlig-Turek (Institute of Arts, Polish Academy of Sciences) was asked to chair the Editorial Group in charge of writing the present paper on the situation and the future of European musicology. Obviously, concerning a research field as diverse – as outlined above – as that of musicology, it is not expected that a consensus view can be formulated. Nor need it be. Instead, the aim of the present paper – labelled for that very reason ‘Discussion Paper’ – is to raise questions as to future challenges for the discipline, hereby opening up discussions that eventually may

lead to a closer interaction of, and a deeper understanding between, the various fields of musicology. Already during the preparation of the paper, the work has sparked off a stimulating discussion that illustrates that the initiative is fulfilling an important and much needed role. Policy makers (including ESF Member Organisations) and institutional bodies, such as universities and music schools, as well as the research community at large encompassing all musicology sub-disciplines are invited to reflect on the content of this paper and take action in line with its recommendations.

Professor Milena Žic-Fuchs, *SCH Chair*

Professor Ewa Dahlig-Turek, *SCH member
and Chair of the Editorial Group*

1. Musicology



1.1 Musicology, Disciplines and Scholarship

The ESF's Standing Committee for the Humanities identified musicology as one of its strategic priorities and organised a Strategic Workshop entitled *Musicology (Re-) Mapped*, held in Warsaw in November 2009. The workshop was attended by a group of musicologists whose concern was musicology as a research discipline in Europe. The present paper is a result of this workshop and its aim is to support reflection at policy level on the current situation and possible future directions of musicology by identifying issues of key importance and pointing towards possible solutions. As such, the paper is meant to stimulate further discussion rather than make statements based on evidence that the discussants did not have at their disposal.

Musicology addresses central concerns of the humanities and the sciences as it deals with a complex and universal, socio-affective and non-verbal semantic system of human culture. It addresses all aspects of the study of all music including the history, anthropology, cultural diversity, structure, physics, psychology, sociology, physiology and philosophy of all musical styles and genres (popular, traditional, classical, notated, improvised, vocal and so on) as well as technologies (material, electronic, digital). The importance of musicology lies in the fact that music is one of the most important phenomena in human culture.

Music surrounds us sonically, socially and aesthetically. It is a cultural force whose significance is self-evident and a commercial agent of great power. It affects human mental and psychic dispositions, social and political structures, and everyday quality of life. Moreover, music is often performed with the

intention of producing such effects. The cultural, social and political contexts of music are both significant and complex, which points to the need for a thorough intellectual management of the whole phenomenon of music.

Explicit theorising about music has a long and distinguished history in many civilisations (e.g., Europe, India, China, Arab civilisation), and even when these thoughts are not committed to writing, they play an important role in the overall culture of music-making in many or most cultures. In Europe, music is a constant human preoccupation at least since the invention of graphic European music notation in the ninth century. Understanding music has been a concern at least since antiquity; and, in the Middle Ages, music – in an idealised mathematical sense – was a central element of the seven liberal arts and a member of the *quadrivium*. The earliest university curriculum for music dates from the 1260s, and music and its understanding – musicology – have always travelled hand in hand. The heterogeneity traceable in a variety of systems of music classification developed since the Middle Ages constitutes the historical heritage of musicology and its immanent feature.



Figure 1. Ipod. Photo by chiarashine.

Musicology is also a discipline directly related to music's consumers, from the enlightened amateur of early music or creator of iPod playlists of pop songs to the organiser of concerts or producer of radio programmes. Production of music for public places is now a big industry. Commercial forces in society have long been aware of music's potential, although, while it is easy to count the number of visitors to any exhibition, it remains difficult to quantify those who are – directly or indirectly – affected by a critical edition undertaken by a musicologist of a piano concerto by Mozart.

There are several arguments why studying music is important today:

1. Social significance – music is an increasingly important and growing part of people's lives.
2. Cultural identity – music functions as an identity marker for different groupings in society across language borders.
3. Economic role – the music and entertainment industry is a major trans-national industry.
4. Understanding of human psychology and cognition – the study of the psychology of music and music cognition studies work toward a better understanding of human psychology and the human brain and its cognitive processes.
5. Availability of the object of study – music, with all its diversity of forms and historical and geographical contexts, is easily delineable as a zone in culture.

The visibility of musicology as an academic field should correspond to the aesthetic, cultural, social and commercial impact of today's music and sound-based cultural expressions in general in society. In other words, musicological expertise which is omnipresent in musical products and artefacts of all types in our everyday life should be articulated more strongly.

What is not commonly realised is that musicology is not a homogeneous discipline. Following Guido Adler's (1885) division of *Musikwissenschaft* into two main fields: historical and systematic (the study of folk music being a part of the latter)¹ and considering their specific scope, subject and methods, musicologists used to distinguish at least three major sub-disciplines, namely:

- Historical musicology (traditionally identified with Musicology);
- Systematic musicology;
- Ethnomusicology.

Although this division is today hard to defend, as neither methods nor types of music sources are restricted to specific fields of musicology and in fact many researchers bridge them by applying, e.g., 'systematic' methods to the 'ethnomusicological' or 'historical' music material, it has still been functioning in popular understanding, and is present in the names of academic units. The further use of these terms in this paper should then be understood as customary rather than formal.

What is popularly called *Historical musicology* is rooted in the 18th century Western musical historiography and its point of reference is Western European musical tradition. It is focused on individual musical *œuvre*. It deals with study of sources and the production of critical editions, music analysis and interpretation, taking into account the multiplicity and diversity of contexts of music (e.g., philosophical, social, economic and political).

Systematic musicology is the label given to studies such as analyses of auditory objects, human auditory perception and musical practices in general in a systematic and empirical perspective. Tests and experiments together with the identification of functional relationships and theoretical modelling on both contemporary and past phenomena are crucial techniques applied in this field. Conceived as a counterpart to music history in the era of modernity, it has developed into a mature set of concepts, methods and research paradigms that are evident in the disciplines usually subsumed under the heading of systematic musicology: psychology of music, sociology of music, music theory, aesthetics and philosophy of music, musical acoustics and organology to name only some of them. Music cognition studies, computerised musical feature extraction and auditory culture studies are among the emerging fields that share basic assumptions and research attitudes with systematic musicology. The tool box of systematic musicology is also relevant to popular music studies and to ethnomusicology.



Figure 2. Young musicians at annual folk music festival in Kazimierz Dolny (Poland), 2004. Photo by Ewa Dahlig-Turek.

1. Guido Adler (1885) Umfang, Methode und Ziel der Musikwissenschaft. *Vierteljahrsschrift für Musikwissenschaft*.

Regarded at its early stage as a musicological sub-discipline focused on non-Western music of oral traditions, *Ethnomusicology* deals today with all music of the world studied in its cultural context as a human social and cultural phenomenon. Its scope is therefore very broad, and so is the spectrum of methods widely borrowed from cultural anthropology, sociology, ethnology, music history, and many others. Among the three sub-disciplines of musicology, ethnomusicology is in constant exchange with systematic musicology from which it takes methods and technology, and to which it supplies experimental material.

Despite the above outline of the traditional sub-fields of musicology, the adequate understanding of the remit of this discipline is the study of music in all aspects that music and music-related issues can consider. All this makes musicological research truly interdisciplinary.

1.2 Musicology in Europe: Key Elements of Analysis

The Strategic Workshop Musicology (Re-) Mapped, held in Warsaw in November 2009 under the auspices of the ESF's Standing Committee for the Humanities, was an opportunity to reflect on the situation of the discipline in Europe in the global context. Fifteen musicologists from European musicology centres located at universities and academies attempted to begin analysing and understanding the research and teaching of musicology in Europe – within and outside the EU. Participants, representing institutions of different functions, models and practical specialisations that are sometimes complementary but sometimes distinct, were invited to present their views on the current condition in their respective field of musicology, and on the institutional situation of the discipline in their country. Followed by a discussion, their common effort led to the production of this discussion paper which has been enriched with case studies illustrating different facets of today's musicological studies.

The discussion in Warsaw crystallised around some key elements of analysis. The participants pointed to the following characteristics of the situation of musicology in Europe:

1. Recognition of the intensity and scope of musicological activities in Europe both within universities and conservatories and within non-university institutions such as academies, museums, research institutes and large research projects.
2. Awareness of the insufficient information about, and dissemination of, these activities.

3. Appreciation of the developing professionalisation and independence of sub-disciplines, and the tension both between those sub-groups themselves and between individual sub-groups and the discipline as a whole.
4. Appreciation of the fact that musicology, through its interdisciplinary character at the crossroads of the humanities and the sciences, must seek ways of playing an active role within disciplines that also address musicological issues (e.g., media and sound studies, philosophy, languages, performance studies, cultural studies, cognitive and brain sciences, affective sciences, applied acoustics, computational sciences, history, anthropology and others).
5. Awareness of the fact that musicological expertise is vital in order to penetrate current cultural processes and modes of socialisation and communication in the realm of popular culture, mobile sound technologies and globalisation.
6. Acknowledgement of the tension between national and international funding initiatives which favour collaborative work, according to a science model, and the greater prestige attached to single-author publication in the humanities.
7. Awareness that musicology is vital in cultivating a European information and knowledge society as a growing share of this information is generated, processed and appropriated via music and sound technologies.
8. Awareness of the fact that musicology as an evolving discipline will need to consider the manifold political, economic, social, technological and aesthetic processes that its main object of study, music and its perception, reflects and embodies in culturally powerful ways.
9. Consensus that musicology as a discipline should be more integrated, productive and socially relevant.

What links the above elements is that none is fully understood across the field. Thus, some groups might feel that their area of study is less valued worldwide than it was, say thirty years ago, while others might feel that the way in which scholarship is construed in their own country or sub-discipline represents the only possible model. The discussions at the workshop recognised these highly variable and surprising features, and equally recognised that an analysis and understanding of musicology in Europe requires each of the elements enumerated above to be described and quantified in ways that all participants in the workshop, and the musicological community at large, could accept. This paper argues that this should and could be achieved, and the first step in this direction should be an extensive mapping

describing the state of musicology in Europe in order to identify a future that will allow the discipline to co-exist with the institutions (universities, academies, funding bodies) of tomorrow and to realise its potential fully (see *Recommendations for Actions*).

1.3 Why is Musicology Important for Research in Europe?

Musicology is a small discipline in terms of research personnel and funding in comparison with disciplines like history or linguistics, but it has a long pedigree: whereas most humanities disciplines emerged during the enlightenment, fundamental questions in musicology date to antiquity. In many respects, musicology can be seen as a paradigm within the humanities, as it overlaps with language, literature, history, philosophy, anthropology in ways that other disciplines do not. Through its ethnological, social, psychological, computational and cognitive component, there is also substantial overlap with the social and natural sciences. But musicology can also be seen as a paradigm within the sciences. Music psychology, cognition and neuroscience are dynamic sub-fields of musicology today that bring together scientists from different scientific disciplines and strongly contribute to the visibility of music-related research and teaching across Europe and internationally. Indeed, it is not uncommon to find distinguished musicologists in university departments whose main profile is not music (social sciences, history, etc.). Musicological and acoustic expertise lies at the heart of paramount technical inventions such as audio data compression technologies. Music co-structures our living worlds and cultural identities to an unprecedented extent. And unlike so many of the disciplines in the humanities, its subject – music – is a universal currency across the globe that has social, cultural and economic implications for almost every inhabitant.

Musicology undertakes a range of activities across Europe, and has regular and sustained importance for musical praxis. The discipline supports the more imaginative work in musical performance of all periods and represents the most important infrastructure on which knowledge about music is based. The fact that this is so rarely acknowledged has many reasons, but they are important enough for the ESF's Standing Committee for the Humanities to want to understand them.

Music Media Multiculture

- Changing musicscapes²

Dan Lundberg,³ Centre for Swedish Folk Music and Jazz Research, Sweden

The scope of interests of today's ethnomusicology goes far beyond traditional understanding of this discipline both in the subject and methods. The project *Music Media Multiculture – Changing musicscapes* (MMM) proves that ethnomusicologists can contribute to a better understanding of multicultural societies of today, like that of Sweden.

The basic assumptions of the project were the following:

- There is a strong connection between music (both live and mediated) and the construction of multicultural societies.
- An ongoing re-stratification is taking place within Swedish society today – from social affinities (family, place, profession, etc.) to cultural affinities (music, sports, taste, values, etc.) as a departure point for how people are identified (and identify themselves).
- The two issues above are closely related. The display of difference and similarity through expressive forms is a prerequisite for the transition from a social to a cultural understanding of differences in society.

These assumptions gave rise to questions:

- In what ways do different groupings in multicultural Sweden use music (both live and mediated)?
- Where and in what contexts does this occur?
- Which players are important for these activities?
- What are the functions of live and mediated music? (Are there different functions?)
- How is music influenced by media?

Case studies

The empirical point of departure for MMM is 14 case studies, each with a different focus and extension within three main fields.

- The first area of study illuminates the discourse and practice of diversity and multiculturalism.
- The second field focuses on the existence and growth of culturally oriented groupings in society. The aim is to acquire knowledge of the structures and strategies of the groupings.
- In the third study area, the interplay between live and mediated music is investigated, including new conditions for distribution and production provided by new technology and media.

2. See http://www.visarkiv.se/online/mmm/index_mmm.html
The project was financed by the Royal Swedish Academy of Music and the Bank of Sweden Tercentenary Foundation.

3. See Dan Lundberg, Krister Malm and Owe Ronström (2003) *Music, Media, Multiculture*. Stockholm: The Centre for Swedish Folk Music and Jazz Research.

Musical landscapes and the society of tomorrow

MMM points to changes in society at large, indicated by transformations in the musical landscapes. Individuals previously understood their social belonging in society as dependent on family, occupation, where they lived, place of work and social group and formed groupings based on a social pattern of interpretation. Today, there exists a gradual re-orientation towards a cultural pattern of interpretation. Groupings are more often founded on mutual cultural interests as music, sports, religion, clothing, food, etc.



Figure 3. Music is our 'keyhole', our portal into studies of society's cultural fields of tension. By studying music we can gain knowledge about peoples' lives on a large scale, knowledge which can be difficult to get in any other way (illustration by Ann Ahlbom Sundqvist).

This dislocation, or shift in the basic understanding of affinity, provides the groundwork for the growth of the so-called 'multicultural society'. The dislocation has many reasons, not least the new media and forms of communication that have been developed during the last 25 years.

Consequences for cultural politics

By studying the changes in the musical landscapes, the research project *Music Media Multiculture* contributes to increasing knowledge about patterns and dynamics of changes in society at large – knowledge that hopefully can support the decisions that allow us to create a future society with fewer conflicts.

1.4 Musicology and International Collaboration

Musicology has been diversifying rapidly over the last quarter century, and while most researchers in the field recognise the need for the development of sub-disciplines with their own conferences, publications and societies, there is also a sense that these sub-fields form part of a discipline. However, identifying and categorising that discipline, in national, European and global terms, is now severely problematic, and the inadequacy of our descriptions threatens the position of musicology, its sub-disciplines and researchers, at a time when national funding bodies, educational institutions, and especially European institutions are taking a greater interest in the subject. Yet the diversity of researchers and respective host institutions, of methodological approaches, of national research traditions, of research agendas should be regarded as an asset as it reflects the potential of musicology to generate top-level research within a research landscape marked by diversity instead of one prevailing doctrine.

International collaborative models

One possible model for large-scale international collaboration is the Study Groups of the International Musicological Society. While these are effective and successful groupings, as of 2012 there are only eleven in existence across the musicological domain,⁴ and their effectiveness and impact on the musicological work is uneven. They tend to focus on the humanities with only occasional excursions to the sciences, while a more interdisciplinary approach could be expected to yield greater benefits.

Funding schemes

The ESF and other organisations at a European level have funded a number of projects in musicology in recent years (see pages 10-11), and such a range of activities may equally be balanced against successful support from national funding agencies in some countries. However, more information is needed to identify funding for collaborative musicological research in Europe (see *Recommendations for Actions*).

4. For a full list see <http://www.ims-international.ch/content/index.php/study-groups>

ESF, HERA and COST activities of relevance:

ESF Exploratory Workshops

- *Consuming The Illegal: Situating Digital Piracy In Everyday Experience*, 17-19 April 2011, Leuven, Belgium
- *Music, Culture and Politics in Early Nineteenth-century Europe*, 6-8 May 2010, London, United Kingdom
- *The Future of Research in Renaissance Festivals: Resources and Collaboration*, 21-22 March 2010, Venice, Italy
- *Neuroaesthetics: When Art and the Brain Collide*, 23-26 September 2009, Milan, Italy
- *Music and the Brain: new perspectives for stimulating cognitive and sensory processes*, 3-5 July 2009, Gdansk, Poland
- *Exploring Creative Cities; The Cultural and Economic Values of Cultural Industries Clusters*, 28-29 May 2009, Rotterdam, The Netherlands
- *Singing Actor/Acting Singer: Performance, Representation and Presence on the Operatic Stage, 1600-2007*, 23-26 June 2008, Manchester, United Kingdom
- *Islamisation of the Cultural Sphere? Critical Perspectives on Islam and Performing Arts in Western Europe and the Middle East*, 22-25 October 2008, Amsterdam, The Netherlands
- *Artists and Intellectuals and the Requests of Power*, 26-29 July 2007, Merano, Italy
- *Music, Language and Human Evolution*, 28 September - 1 October 2004, Reading, United Kingdom

→ For more information on any of the workshops above: <http://www.esf.org/activities/exploratory-workshops/humanities-sch.html>

ESF Research Networking Programmes

- *Court Residences as Places of Exchange in Late Medieval and Early Modern Europe (1400-1700) – PALATIUM*
2010-2014

Chair: Krista de Jonge, Catholic University of Leuven, BE

→ <http://www.esf.org/palatium>

PALATIUM aims to create a common forum for researchers on the late medieval and early modern European court residence or palace (*palatium*) in a multi- and transdisciplinary perspective to encourage the debate on research methods. The palace's space and form carry multiple connotations. The decoding of this system of signs necessitates not only the expertise of historians of architecture and of art, but also of various other disciplines including musicology.

- *Musical Life in Europe 1600-1900 (Figure 4)*
1998-2002
Co-chairs: Christoph-Hellmut Mahling, Johannes Gutenberg Universität, Mainz, DE; Christian Meyer, Christoph-Hellmut Mahling, Johannes Gutenberg Universität, Mainz, DE; Christian Meyer, University of Strasbourg, FR; Eugene Wolf, University of Pennsylvania, US

→ <http://www.esf.org/activities/research-networking-programmes/humanities-sch/completed-rnp-programmes-in-humanities/musical-life-in-europe-1600-1900.html>

This programme studied the processes of production, distribution, communication (mediation) and reception of musical works (such as spectacles of court opera, fair theatres, symphonic masses, organ chorales, public concerts, noble academies, private salons, hunt and military parades, ball and village festivals) as well as of their forms of transmission and circulation between 1600 and 1900. Berliner Wissenschafts-Verlag published the results of this programme in a 12-volume series completed in 2008 (*Musical Life in Europe 1600-1900: Circulation, Institution, Representation*, Berliner Wissenschafts-Verlag).

ESF EUROCORES

- *Symbols that bind and break communities: Saints' cults as stimuli and expressions of local, regional, national and universalist identities (CULTICSYMBOLS)*
2010-2013

Project Leader: Nils Holger Petersen, University of Copenhagen, DK

→ <http://www.esf.org/activities/eurocores/running-programmes/eurocorecode/projects/list-of-projects.html#c52412>

Part of the EUROCORES programme EuroCORE-CODE: *European Comparisons in Regional Cohesion, Dynamics and Expressions*, the collaborative research project (CRP) CULTICSYMBOLS studies how rituals and symbols provide social cohesion by focusing the cults of medieval saints and their modern appropriations across a range of different European regions. The sources studied cross a wide variety of visual, written and musical resources. Interactions between centre and periphery, between the medieval Latin culture and regional interests, political and cultural agendas and their reflections in different media – including music – are of primary interest to the project. Among topics to be examined across the CRP is the diversity amid the universality of the Latin liturgy.

ESF Research Conference

- *ESF-LiU Conference - Home, Migration and the City: New Narratives, New Methodologies*

6-10 August 2010, Linköping, SE

Chair: Ayona Datta, London School of Economics, UK

→ <http://www.esf.org/index.php?id=6500>

This conference focused on migration as a social, political, cultural and material process. The performative element of migrants' narratives is very strong and very frequently enacted through music. Migrants' 'narratives' of cities, homes and localities often expressed through music were taken as the analytical starting point for new ethnographic research on migration.

HERA (Humanities in the European Research Area) Joint Research Programme Projects

- **Popular music heritage, cultural memory, and cultural identity: Localised popular music histories and their significance for music audiences and music industries in Europe (POPID)**
2010-2013

Project Leader: Susanne Janssen, Erasmus University Rotterdam, NL

→ http://www.eshcc.eur.nl/hera_popid

Based on the claim that popular music is a pivotal aspect of cultural memory and heritage in specific local contexts and a key resource for understanding the formulation of local, national and transnational identities in contemporary Europe, POPID is investigating the relationship between popular music, cultural memory and local identity in a European context (Austria, England, The Netherlands and Slovenia). Furthermore, the project is investigating how the European music industry can draw on the connections to local popular music heritage in a way that continues to be meaningful for local audiences. The project website is being developed into an open repository for public contributions of localised memories of popular music's history. Among other outcomes, a TV documentary on popular music history is also foreseen.

- **Rhythm Changes: Jazz Cultures and European Identities (Rhythm Changes)**
2010-2013

Project Leader: Tony Whyton, University of Salford, UK

→ <http://www.rhythmchanges.net>

Rhythm Changes is examining the inherited traditions and practices of European jazz cultures in five European countries, developing new insights into cultural exchanges and dynamics between different

countries, groups and related media. A core team of 13 researchers, encompassing leading experts in the research fields of musicology, cultural studies, American studies, new media and music industries, improvisation and performance practice will employ a variety of methodologies to influence the developments of European jazz research. Among other outcomes, the project aims to collate jazz-related data, including relevant research, performance projects, interviews and cultural policies. In addition, the interaction between cultural memory, arts and tourism will be examined by showing how jazz venues and festivals preserve, reflect and inform a sense of cultural memory.

→ For more information on HERA and HERA JRP:
<http://www.heranet.info>

COST Action

- **Sonic Interaction Design (SID)**

2007-2011

Chair: Davide Rocchesso, Università IUAV di Venezia, IT

→ http://www.cost.esf.org/domains_actions/ict/Actions/SID

This COST Action aimed to contribute to the creation and consolidation of new design theories, tools and practices in the innovative and interdisciplinary domain of Sonic Interaction Design (SID): the exploitation of sound as one of the principal channels conveying information, meaning and aesthetic/emotional qualities in interactive contexts. This field relies on SID to strengthen the links between scholars, artists and designers in the European Research Area around the following themes: (I) perceptual, cognitive and emotional study of sonic interactions; (II) product sound design; (III) interactive art and music; (IV) sonification.

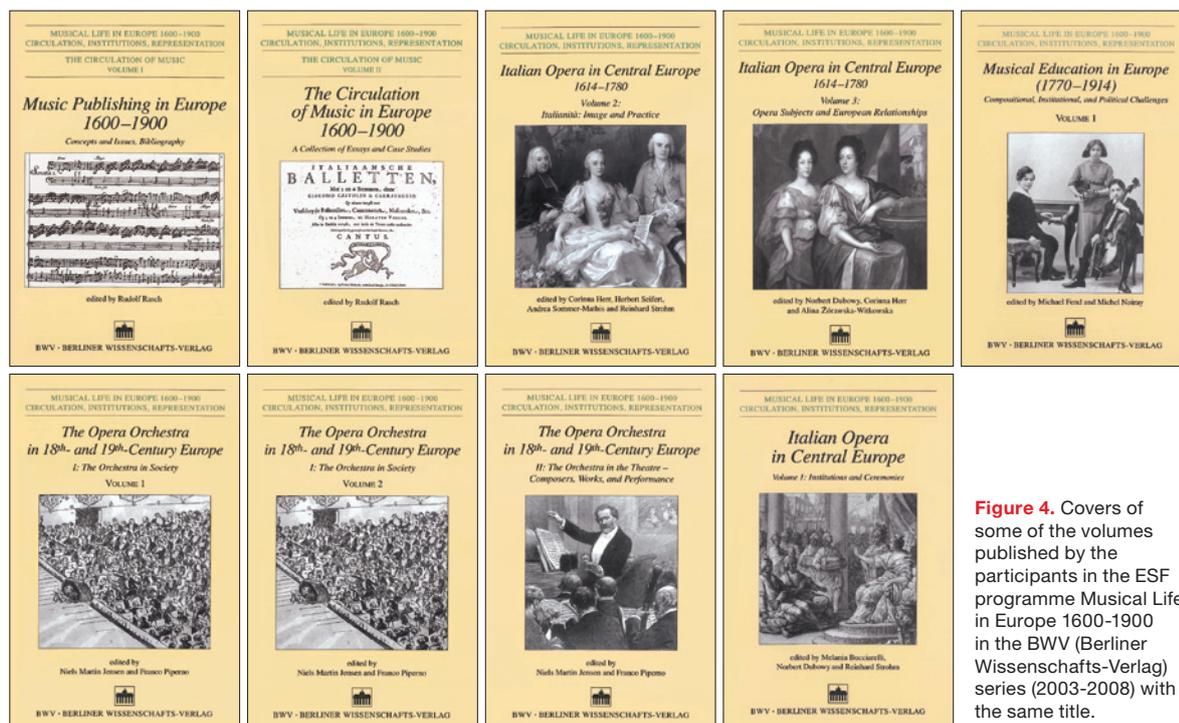


Figure 4. Covers of some of the volumes published by the participants in the ESF programme Musical Life in Europe 1600-1900 in the BWV (Berliner Wissenschafts-Verlag) series (2003-2008) with the same title.

2.

Musicology: pasts, presents and futures



2.1 Musicology as a Discipline

The plurality of fields of research within musicology is colossal which means that any attempt at a single definition of the discipline would be doomed to more or less constant redefinition. Parts of the discipline emerge and re-emerge, frequently on the basis of a couple of conferences, and then are absorbed by, or absorb, others. There is a wide variation in the use of the term musicology, of its constituent parts, and how these constituent parts relate. The approaches of this discussion paper reflect this variation.

Shifts in musicological fashion are multidirectional and therefore difficult to identify and categorise. A general move has been in the direction of a greater inclusivity for the discipline, both in terms of scope and methods, a characteristic that has enlarged the discipline out of all recognition in half a century. Such developments as computing in music and feminism in music are as inexorable as they are significant, and they by no means supersede or replace existing areas of activity. Certainly, when viewed globally, the proportion of researchers working on, say, 17th century German song or rehearsal practices in contemporary string quartets will be radically different to what they were twenty-five years ago, but individual subject areas continue to be well represented. Some further changes involve a move away from an exclusively text-based musicology to one that acknowledges the importance of sound, but again, this does not mark a change *from* text-based musicology *to* a sound-based one, but simply a broadening of the field.

Similarly, the identification of new fields in musicology is bedevilled by the speed at which the discipline is changing. To describe studies in popular music as new is to risk ignoring the significant

developments in the last twenty years. And – to take an example almost at random – biomusicology will seem positively venerable in a few years' time. Similarly, the tenets of the so-called 'New Musicology' that claimed so much attention in the Anglo-American world between c. 1985 and c. 2000 have now been so largely absorbed by the discipline as a whole that even its proponents have been arguing for suppressing the title 'New Musicology' for the best part of a decade.

At a fundamental level, the difference between musicology and musical praxis varies across the continent. In some countries, musicology is defined institutionally by a separation from musical praxis; in others, the two dimensions have been entwined since the beginning of institutional management of research and pedagogy in the subject. The differences and overlaps between the university and the *Hochschule / Conservatoire* are in a constant state of flux, both within individual national boundaries and across the continent (see also section *Research Practices and Institutional Frameworks*).

2.2 Wider Context

European diversity

As will be seen from the following paragraphs, there is a noticeable diversity in musicological research in Europe resulting from cultural, political and historical context. Certainly the division into East and West pre-1989 remains a significant legacy of the continent's history. Colleagues from the old Soviet bloc point to the Anglo-American development of a peer review culture at a time when eastern musicologists were grappling with more fundamental questions. Equally important are national traditions

of scholarship – both within and without musicology – that were in place before 1939. So trends in employment of researchers, the relationship between researcher and institution, the value attributed to musicological endeavour and the relationship between scholarship and musical praxis vary widely across Europe.

Even in a post-1989 Europe, there are barriers to working across the continent. Language is perhaps the most obvious, but the fragmentation of the labour market is also problematic. In comparison with the USA, where researchers and research students can be trained in one part of the country and take a job elsewhere effortlessly, it is not so clear that this is the case across Europe.

Global context

It might be thought that a fundamental dividing line remains between Europe and North America, and explanation might be sought within the domain of language. But French Canadians have enjoyed effortless scholarly relationships with mainland France, and Italian graduate students have been a familiar landmark on the map of North American musicology for a quarter of a century. The UK has always found relationships with the USA easy to establish, and these continue: the largest European contingent at the annual meeting of the *American Musicological Society* comes from the UK.

The wider global map is less easy to outline. The issue of nations that are geographically European but currently fall outside the EU is an obvious one, and for ethnomusicological work ‘borders’ in this context might be read more clearly as research opportunities. But differences between Europe and the Far East, south-east Asia, Australasia, the Indian sub-continent and Africa are all too obvious. However, given the nature of current musicological inquiries but with the exception of ethnomusicology, these differences do not represent a significant problem to musicology as configured in a European context.



Figure 5. Cross-cultural field work in South Africa: ritual with traditional healers in Limpopo. Photo by Jukka Louhivuori.

Music and Emotion

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Music and emotion is a topic area with the potential to bring together most sub-disciplines of musicology. Almost all music can be described as emotional, and all musicological disciplines are interested in emotion. But there are quite different ways of conceptualising emotion in different epistemological traditions within musicology.

Interdisciplinary research on music and emotion is like a window onto the structure of modern musicology from the standpoint of music psychology.

Research on music and emotion is a global western endeavour. It grew initially from a national tradition: seminal German research on the psychology of music in the late 19th and early 20th century of which, however, little is known due to the language barrier.

A good example of a large-scale project in the area of music and emotion is the book: Patrik N. Juslin and John A. Sloboda (2010) *Handbook of music and emotion: Theory, research, applications*. Oxford: Oxford University Press.

Both editors, and many of the contributors, are music psychologists, but there are also many contributors from other sub-disciplines of musicology, and the authors have gone to considerable lengths to foster interdisciplinary interaction. The other disciplines are music philosophy, historical musicology, musical neurosciences, ethnomusicology and music anthropology, music sociology, music education, popular music studies and music therapy.

Interesting research questions addressed in the book include:

- Why does music evoke strong emotions although (unlike food) it is not essential for survival, and (unlike sex) it is not essential for reproduction?
- What makes musical emotion different from everyday emotion?
- How can (musical) emotion be measured (issues of validity and reliability) without disturbing the experience (non-invasive techniques)?
- How is musical emotion encoded in a musical score or an expressive performance?
- What physiological mechanisms underlie the induction of musical emotions?
- What is the relevance of research on music and emotion for music therapy, music education, music medicine, film music, music marketing, music performance practice?

This kind of research represents a relevant shift in the history of musicology. As cognitive music psychology emerged from American cognitive psychology in the 1960s, 1970s and 1980s, there was little research on emotion in cognitive psychology. In the 1990s, it became clear that emotion is one of the most important aspects of

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the phenomenon we call ‘music’ (not to mention the phenomenon we call ‘human’) and that it is up to psychologists to make progress in understanding emotion, by whatever means. The result was a new willingness to try out and develop empirical methods, and to engage in interdisciplinary interaction with theoretical approaches in the humanities.

Music psychologists tend to be open to interdisciplinary collaboration. Some (music) psychologists continue to adopt an extremely ‘scientific’ approach that favours quantitative laboratory experiments. However, this is less common in music psychology – a relatively young and dynamic discipline – and even less in research in music and emotion, due to the inherent methodological intangibility of its subject material.

Many researchers working on music psychology and music and emotions work in the departments of psychology. The international collaborations include the biannual International Conference on Music Perception and Cognition; the academic societies of North America, Europe, and other regions; and several international refereed specialist journals.

The social impact of research on music and emotion is considerable – or at least potentially so. Most people identify with musical styles and listen to music regularly, and spend considerable sums of money on music. This happens for many reasons (relaxation and recovery, mood regulation, the creation of situations that facilitate social contacts...). People are fascinated by music’s emotional power and want to know more about it. It is a major challenge to music psychologists to present complex experimental findings so that they can be understood and applied.

2.3 Research Practices and Institutional Frameworks

Institutions

As already mentioned at a very basic level, there exists a wide variation in the location of research in musicology across the continent. There are two overarching modes: musicology is found as part of an integrated practice of teaching and research in institutions of higher education (universities or conservatories) where researchers are employed to teach and to research in highly variable proportions (where research and the supervision of doctoral dissertations can range from 80% of a colleague’s activity to 20%); it is also found in academies, institutions such as the CNRS and others, where researchers are employed almost exclusively to pursue research. In both modes, researchers may be full-time, permanent, part-time, on a fixed-term contract or any combination of these conditions.

Within universities and conservatories, music-related research is found in a wide range of configurations: as a free-standing department with scholarly and budgetary autonomy, as a less autonomous grouping within a larger organisation (School or Faculty of Humanities, Geisteswissenschaft or Lettere, say), as a small group of researchers contributing to work conceived more broadly (performing arts, for example), or embedded in other autonomous groupings within the institution (social sciences, acoustics; there is almost no part of the modern university that could not give a home to a researcher involving him/herself in music research). Within conservatories, where musicological research exists, it is frequently configured as a separate department within the organisation.

Exactly what type of activity is developed in individual groupings varies within a single country and certainly between nations. The place of composition, for example, is highly variable across the continent, and that of so-called ‘research-led performance’ or ‘practice-based research’ even more so. To create a reliable map of the discipline, these parameters would need to be set very clearly indeed in order not to distort national pictures (in the UK, for example, up to 35 or 40% of ‘research-active’ staff in universities are composers). And within musicology itself, the variation in balance between sub-groups within institutions is colossal: some large institutions, for example, consist largely of historical musicology, whereas others support a wider mix of different sub-species of the discipline.

The size of these research groupings can vary enormously, both within universities and conservatories and within academies. The largest European research groups can reach 20+ scholars whereas much smaller groups (as few as three or four colleagues) are widespread and fundamental building blocks of the discipline’s health across the continent.

Networks, individuality and interdisciplinarity

The size of individual groupings within institutions, even the largest, and the possible predominance of individual modes of working, means that networking between institutions both within the same country and internationally is fundamental to almost all work in musicology. An individual scholar will establish his or her own networks depending on his or her research interests; such networks may include colleagues within the same department, will certainly include fellow researchers in other groups within the same country, beyond national boundaries, and will involve large numbers of scholars outside Europe. Occasionally such networks will formalise, with a management team (for example,

the *International Musicological Society* Study groups already mentioned), and will host dissemination events (see *Publications and Dissemination*) and contribute as a group to publications. They may often benefit from, and serve as a springboard for, larger-scale funding applications.

Over time, such networks metamorphose into fully-established societies with constitutions, permanent memberships, subscriptions and publications. These function in a counterpoint to the older national associations whose establishment goes back to the third quarter of the nineteenth century.

Collaborative working is more common in domains that take their epistemological and methodological models from the sciences: research questions are broken down and handled by several colleagues simultaneously with the results established before public presentation. But even in domains traditionally dominated by individual scholars, it is now common, especially when those individuals are in receipt of grants from national funding bodies, to work in a team with research assistants and research fellows on a single project, although here the Principal Investigator will usually be the author of publications and other outputs. It would be valuable for the future strategy of the discipline to obtain some view of how many scholars across the continent see themselves in terms of collaborative working.

The paper recognises that musicology sits at the crossroads of large numbers of other disciplines, the enumeration of which would be an exercise in futility given their extent. The institutional view of (1) ‘interdisciplinarity’ – where colleagues within the same institution work together – is much rarer than (2) the acquisition of skills in another field by an individual researcher and (3) the brokering of different expertise between institutions – frequently in another country. All three models are practised across the continent with relatively few researchers able to make claims that their research was *not* interdisciplinary in one way or another.

There is a continuing need for a better balance between unidisciplinary and interdisciplinary work in musicology. That is presumably the case in most disciplines, but the problem may be more acute in disciplines that mix humanities and sciences in similar proportions. In general, unidisciplinary approaches tend to predominate in all disciplines, since institutional structures favour them; a multidisciplinary approach is less likely to be promoted or funded, since it means extra work for the researchers and reviewers from different disciplines tend to disagree on basic issues. To create a better balance, it is necessary to create

environments that explicitly promote interdisciplinarity, while at the same time allowing unidisciplinary approaches to independently flourish.

The existing regional and international musicological organisations illustrate well the dispersal of musicological research according to sub-disciplines. The *International Musicological Society* (IMS) founded in 1927 in Basel has traditionally represented European historical musicologists, and so has its American equivalent – the *American Musicological Society* (AMS), established in 1934. During the 20th century both systematic musicology and ethnomusicology grew steadily relative to historical musicology, creating their own fora and operating mainly independently. For ethnomusicology in Europe one can mention the *European Seminar in Ethnomusicology* (ESEM), and on a global scale – the *International Council for Traditional Music* (ICTM). For systematic musicology there exist a number of societies which focus on particular fields of this complex and varied sub-discipline of musicology, e.g., *European Society for the Cognitive Sciences of Music* (ESCOM), *International Society of Music Information Retrieval Conference* (ISMIR). Attempts to unite all the musicological sub-disciplines within one single society labelled ‘musicological’ have not been successful until now. Therefore, there is a need today for a new political forum that strives for a collaboration among the three main sub-disciplines of musicology through joint representation and promotes constructive interaction and mutual support among those disciplines (see *Recommendations for Actions*).

Publications and dissemination

Research conferences are the staple of the scholarly infrastructure worldwide. They take a number of different forms. Annual or biennial conferences are common, are usually peripatetic, and are often sponsored by societies. The *International Society of Music Information Retrieval Conference* (ISMIR) meets annually, and often in Europe, while the biennial conference on *Nineteenth-Century Music* meets exclusively in the UK. The *Annual Conference on Medieval and Renaissance Music* meets in the UK and continental Europe in alternate years. Other conferences are run on an *ad hoc* basis, as a critical mass of interest develops around a particular subject. Conferences follow a wide range of patterns for establishing programmes: some are by invitation only (especially where extensive funding is available), other programmes are assembled after peer review of abstracts. In addition, societies, individual departments and groups of like-minded individuals frequently run workshops and study days. Such

behaviours are typical not only of the humanities, but of the scholarly world at large.

There are numerous regular independent global conferences devoted to sub-disciplines of musicology such as ethnomusicology, music psychology, historical musicology, music information sciences, music acoustics and, more recently, the neurosciences of music. Each such conference typically attracts several hundred participants. However, as already mentioned, there is a need for a large general musicology platform with the participation of an appropriate mix of researchers from different sub-disciplines to create conditions for the development of interdisciplinary collaborations.

The differences in national publication traditions are similarly shared across other disciplines. National societies publish their own journals, and subject-specific journals are located right the way across the continent, as the ESF's *European Reference Index for the Humanities* (ERIH) showed. But ERIH also showed up the very large number of US journals dominating the field of musicology and also a wide range of attitudes to the question of peer review. This is clearly an issue in a great state of flux, as ERIH attempts to align European practices with those worldwide in the humanities but also in the sciences where peer review is the norm. The publication of monographs varies in intent. Most Anglophone publishers and many continental houses aim to produce monographs by established scholars while there are a large number of continental publishers who take care of the institutional obligations to publish doctoral dissertations and related work. The position that a monograph holds in a scholar's output also varies across the continent,

as does the nature of the book – catalogue, *synthèse*, manual, edition, facsimile – each of which commands different cultural value in different countries.

The digital presentation both of the results of research and of datasets (banks of images, sounds and texts) is growing apace, especially where most external funding bodies – whatever the outputs of the project – expect a website as at least one of the project's outcomes. The attitude of national funding bodies to digitisation projects varies from country to country, and changes over time within countries themselves. Furthermore, the issue that faces all projects of this type is one of sustainability: the cost of preserving digital resources on institutional or commercial servers.

Research funding

This is a domain in which there is a severe lack of clarity about individual national practices across the geographical domain covered by the ESF, and the degree to which researchers in individual countries have been successful in securing funding for musicological projects. Although most nations have provision for the central funding of research, it is not clear as yet how much of this finds its way to research in musicology. Anecdotal commentary suggests that this is scattered, with some spectacular success in some countries being balanced by a dearth in others. Anecdotal evidence suggests that CNRS and ARN in France, the AHRC in the UK, the Humboldt Stiftung and Max Planck Gesellschaft in Germany, the Riksbankens Jubileumsfond in Sweden, the FWF in Austria and the PRIN in Italy have also committed large sums to musicology in recent years.

New Research Topics and Paradigm Changes in Musicology

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Musicology has natural connections to several research fields: music acoustics is connected to physics, music psychology and sociology can be understood as sub-fields of general psychology and sociology, music history applies research tools and methodologies typical to general history, etc. Music analysis can be considered as a topic, in which musicologists have developed methods and tools specific to musicology only. Thus, it is more than natural that interdisciplinarity and cooperation with other fields has been typical to musicology.

In the 90s, in several European countries, interest was aroused in cognitive sciences. This development strengthened the interdisciplinary nature of musicology. Research in the field of cognitive sciences needs expert knowledge in such areas as computer science,

physics, brain research, psychology and even cultural studies (ethnology). In Europe several conferences were organised where connections between music and cognition were discussed and the *Society for the Cognitive Sciences of Music* (ESCOM) was established in 1991. Similar developments happened in USA (SMPC) and in a few Asian countries (APSCOM). Cognitive sciences of music had from its beginning close connections to systematic musicology, and resulted in close cooperation (e.g., summer schools in Jyväskylä, Finland; Ghent, Belgium; Hamburg, Germany).

Interest in cognitive aspects can be interpreted as a paradigm change [Kuhn (1962) *The Structure of Scientific Revolutions*. A paradigm turn happened when new research methodologies were accepted and

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widely applied by the research community, societies (ESCOM, SMPC, APSCOM, etc.). Scholarly journals have established themselves into this new domain (*Musicae Scientiae*, *Psychology of Music*, etc.), and the field is represented in academic curricula and educational systems (summer schools in cognitive and systematic musicology; study programmes in several departments of musicology, etc.).

Cognitive musicology as a sub-field of systematic musicology has introduced new research topics and collaboration in Europe and at the international level. New methodologies for musical data mining (MIR⁵: Music Information Retrieval) have been developed to help researchers find useful information from large audio databases and libraries. Better understanding of musical processes from the point of view of brain activities was the main focus of the EU research project called 'Brain Tuning'⁶ in which researchers outside Europe (USA, Canada) also participated. More *culturally orientated interdisciplinary research* projects were introduced by people interested in cross-cultural aspects of music and produced important knowledge of cultural background of immigrants. In many

European countries programmes supporting cross-cultural studies have been established (for example, in Finland, the *North South Higher Education Network Programme*).⁷ These programmes have strengthened mobility of teachers, students and researchers between European, Asian and African countries.

New media has given new tools for researchers to develop research methodologies and find new research topics. Motion capture technology has been applied into music studies by several institutes and departments. This technology has provided the possibility to look at music from the bodily point of view, which has given new insight into the studies of music performances. Musicologists have applied internet and mobile technology widely; the role of mobile music technology has been studied in music education as well. Collaborative aspects in music making and societal aspects of mobile technology have been supported at the European level by a research project funded by the EU (UMSIC – *Usability of Music for the Social Inclusion of Children*; countries involved in this project are Greece, Finland, Switzerland and the United Kingdom).⁸



Figure 6. Summer School on *Systematic Musicology* (University of Jyväskylä, Department of Music, August 2010). An essential part of the summer school was students' experiments. In this picture a group is marching playing certain rhythms in a different tempo from a second group (out of the picture). The possible change of tempo and rhythm when groups were crossing each other was analysed to see how well the groups were keeping the tempo during marching (bodily aspect) and whether the tempo of the other group was introduced. Practical experiments are one of the elements partners of the Summer Schools have adopted into their curriculum. Photo by Jukka Louhivuori.

5. See <http://www.ismir.net>

6. See <http://www.braintuning.fi>

7. See <http://www.cimo.fi/ohjelmat/north-south-south>

8. See <http://www2.it.lut.fi/project/umsic/>

2.4 Research Infrastructures⁹

Musicology is evolving towards a networked discipline, in which collaboration and sharing of information are becoming vital. Also, music culture is increasingly becoming digital culture, living on the Internet. Both developments come together in what may be a crucial development in the next decade: the transformation of musicology into a data-rich discipline. A strong digital research infrastructure is needed for data-rich musicology, the outlines of which are already beginning to emerge.

Three important aspects of such a music research infrastructure are:

Data

There is a long tradition in large-scale collecting musical metadata, mainly databases of musical sources (e.g., RISM A/II).¹⁰ Digitisation of musical audio and score holdings is nowadays taking place on a massive scale throughout Europe, part of which is made accessible through *Europeana*.¹¹ In addition, the music industry and amateurs produce immense amounts of musical data that, provided their quality is above a certain threshold, are potentially usable in music research. A serious problem is that scores are usually digitised as images, which make their musical content practically inaccessible to automatic analysis. However, there is a long tradition of medium- and small-scale projects for encoding of scores. Several mature music encoding formats are available (e.g., MusicXML,¹² MEL,¹³ Humdrum¹⁴) that support the emerging concept of the digital critical edition of music. In folksong research simple codes for monophonic music (e.g., the *Essener Assoziativ-Code* known as EsAC) are still in use. Example projects include:

- Digital collection building and research in the area of folk songs and ethnic music at the Hungarian Academy of Sciences; the Polish Academy of Sciences; University of Athens; Meertens Institute, Amsterdam; in Belgium, Finland, Slovenia and the UK.
- Digital scholarly editions of music researched in Detmold Hochschule für Musik (EDIROM),¹⁵

9. The role of Research Infrastructures for humanities research is presented in *Research Infrastructures in the Digital Humanities*. ESF Science Policy Briefing 42, 2011.

10. *International Inventory of Musical Sources* published by the *Répertoire International des Sources Musicales*; see <http://opac.rism.info/>

11. See <http://www.europeana.eu/>

12. See <http://www.makemusic.com/products/musicxml.aspx>

13. See <http://music-encoding.org/>

14. See <http://www.music-cog.ohio-state.edu/Humdrum/>

15. See <http://www.edirom.de/>

Goldsmiths, University of London (ECOLM),¹⁶ Utrecht University (CMME),¹⁷ the Danish Centre for Music Publication and the Centre d'Études Supérieures de la Renaissance, CNRS-Université de Tours.

Research tools

Without the availability of music processing tools, data richness will lead to information overload. Common basic operations that can be done automatically include searching, quantitative analysis, sorting, linking, transforming and visualisation. For all of these operations, tools have been developed in music information retrieval, computational musicology and the music industry. Examples include:

- Humdrum toolbox for music analysis;
- OMRAS 2 software¹⁸ suite which includes components for visualising and annotating musical audio;
- Identification of recordings in services such as Shazam;¹⁹
- WITCHCRAFT search engine for folksong melodies.²⁰

There are, however, no comprehensive, intuitive toolboxes for musicological research, and existing tools may suffer from various shortcomings such as specificity to a certain repertoire or approach, lack of robustness and flexibility, flawed user interfaces, or output that is difficult to interpret.

Communication and collaboration infrastructure

Internet has become the default communication platform for collaborative research, and most networks have basic provisions such as websites, mailing lists and repositories. Often these are not well known outside the direct context. More advanced provisions, such as collaboratories, e-journals, enhanced publications (giving access to underlying research data), are only beginning to emerge.

In the broad meaning, 'research infrastructures' in musicology include also libraries, museums, archives, research laboratories, recording studios and other facilities and resources indispensable in research. While traditional infrastructures like museums, libraries and archives are usually well recognised, their digital output (especially databases

16. See <http://www.ecolm.org/>

17. See <http://www.cmme.org/>

18. *Online Music Recognition and Searching*;

see <http://www.omras2.org/>

19. See <http://www.shazam.com/>

20. *What Is Topical in Cultural Heritage*;

Content-based Retrieval Among Folksong Tunes;

see <http://www.cs.uu.nl/research/projects/witchcraft>

created for internal purposes) is not always known. This applies even more to research labs which serve particular institutions while – with a better circulation of information – they could serve larger research communities. Since not many musicological institutions can afford to buy expensive software or technical equipment, or cover a wide scope of material with their databases, it is more reasonable to specialise in certain technologies, or e-contents,

and to make them available for cooperating institutions and for individual researchers.

Since so many of the current initiatives for research infrastructures are bottom-up, a reliable overview – which would be very useful in research work – cannot be given. It should constitute a part of the Formal Mapping Exercise proposed in *Recommendations for Actions*.

Digital Image Archive of Medieval Music (DIAMM)

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Study of medieval music has historically been hampered – or overly influenced – by the very wide geographical distribution of the primary source materials. Obtaining photographs and microfilms of manuscripts can be costly, and does not create a collection of source materials that are easy or congenial to work with. Research has therefore often been limited to close studies of single manuscripts undertaken by senior scholars who have the time and research funding to travel or to buy surrogate copies. Poor access meant that this field of musicology was waning, but the new access provided by DIAMM (<http://www.diamm.ac.uk>) has reawakened interest in this period of musicology and changed research on music of this period to take a more holistic approach.

DIAMM began creating very high quality digital images of music manuscripts in 1998, when this level of digital imaging (i.e., 50-144 Mpx equipment) was new to archival documents. Various funding streams, both public and private,²¹ have allowed the project to expand its content and create an enviable online delivery system that allows scholars to access images of some of the most important as well as the least-known of medieval sources of polyphonic music embedded in a considerable database of metadata.

The project involves scholars worldwide contributing to the content and using the online resource; the primary language is English. Although the resource is designed for musicologists (specifically those interested in medieval and early modern music) it is also widely used by librarians, historians, palaeographers, calligraphers, performers and those generally interested in learning more about medieval artefacts. The resource is used as much for teaching as for personal research by individuals, and the user profile is not limited to academic usage, but embraces all types of user from almost every country in the world (including Asia and Africa).

DIAMM is primarily an information resource used by many scholars as part of their general and specific research. Much of the early work of DIAMM was devoted to creating digital restorations of badly damaged sources (available on the DIAMM website), which are made available to users alongside the un-restored originals. Recent developments have seen large grant-funded research projects relying on DIAMM wholly or partly for their primary research materials.

The consistency in delivery method and broad scope of DIAMM content is not matched elsewhere: no other online collection offers such a level of cross-searchability, since DIAMM is not limited by country, collection, composer, genre, etc. Although the resource is strongly image-based, recent developments have seen content and usage more directed towards metadata; originally delivering a searchable electronic version of the two primary printed catalogues in the field, dating from the 1950s to 1980s (RISM and CCM), and more recently providing updated descriptions and bibliographies for manuscripts. In addition to the

catalogue content, newly discovered fragments are included in the database, so that the content is now:

- a) the most complete listing of manuscripts of polyphonic music up to c. 1550; and
- b) the most comprehensive source for bibliographies on manuscripts and music from this period.

No specific effort was made to publicise the resource for several years, but information spread by word of mouth. Facebook and twitter feeds act as support mechanisms and have attracted some new interest. Changes in DIAMM activity (e.g., the introduction of DIAMM print publications) has also led to a broader general awareness of its existence, but most new usage comes from search-engine query results, which often return DIAMM as the first result in a search for a library, composer or manuscript.



Figure 7. GB, London, Lambeth Palace MS 1 reproduced by kind permission of Lambeth Palace Library.

21. In the UK: Humanities Research Board, Arts and Humanities Research Council, The British Academy, The John Fell OUP Research Fund; in the USA: the Andrew W Mellon Foundation.

Dynamic Music Editions and the CMME Project

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The field of early music studies, traditionally a bastion of methodological conservatism within musicology, is seeing increasing reliance on digital research resources, the most well-known of these offering online treatise texts (*Thesaurus Musicarum Latinarum*) and manuscript images (*Digital Image Archive of Medieval Music* – see above). Another major form of primary material in early music research is the edited score, providing analytical control and notational translation for modern readers and performers, and this is the focus of the *Computerized Mensural Music Editing Project* (CMME, <http://www.cmme.org>). More than a repository for online scores, the CMME Project focuses on digital encoding and representation of music notation, providing software tools for editing and viewing 14th-16th century compositions with interactions denied to the static printed edition. A new form of musical publication thus comes into existence: the interactive ‘dynamic’ music edition.

Among the most important consequences of encoding music data are conceptual shifts in both the philological apparatus of editorial practice and the author-reader model in musicological publication. New conceptions of the ‘work’ and ‘text’ in literary studies have found resonances in musicology, with new text-critical perspectives rejecting the applicability in early repertoires of traditional fixed-work concepts. The idea of (re)constructing an ‘Urtext’ of a medieval composition, the one ideal original form envisaged by its composer, is now considered by many to fit poorly with the performance cultures and transmission patterns of pre-modern repertoires, in which variance and even textual instability may be essential elements. Practical and economical concerns in print publication, however, force the editor into enshrining one version to present to readers. Information technology offers an alternative path: rather than the traditional model of presenting one central reading with variants recorded in a cryptic appendix, the encoded edition with accompanying viewing software offers the reader the choice of which versions to view/hear, also allowing visualisation of alternative readings directly on the score.

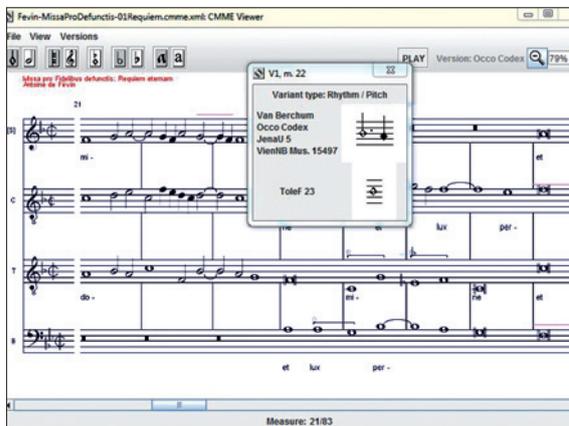


Figure 8. CMME presentation of variants and versions.

This flexibility in visualisation points to a broader paradigm shift in the editor-user power relation. Much of the discourse surrounding early music editing has focused on graphical and notational issues – how one chooses to translate early notations into modern forms, with changes of clefs, texting, accidentals, etc. The dilemma of the editor is that different audiences and different purposes are best served by different editorial styles, so there is no single optimal presentation form for an edition. By removing the editor’s (and publisher’s) burden of selecting one presentation policy, the dynamic edition opens this choice to the user, who can easily configure the visual form of the edition to meet different needs. The editor’s responsibility is refocused on the truly critical aspects of editing (analysing the source tradition, understanding and judging readings, etc.) rather than the largely cosmetic compromises of presentation.

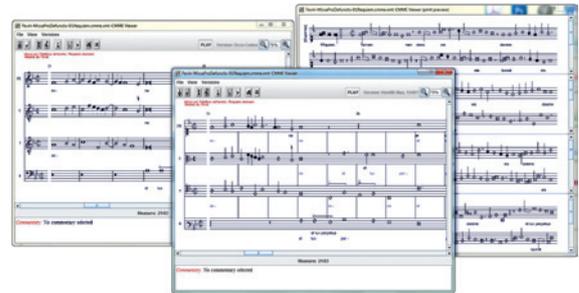
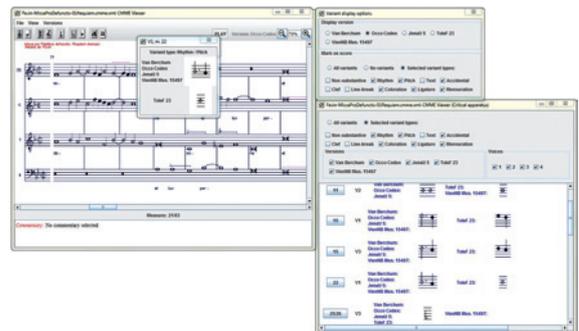


Figure 9. CMME configurable score visualisations.

With its online and dynamic publication model, CMME has the potential to bridge gaps between computational musicology and its traditional historical counterparts. Online ‘editorial projects’, thematically grouped music editions like volumes in a printed series, offer a user-friendly means of accessing, viewing and listening to encoded musical data which requires no specialised knowledge. The data, however, remains usable for computational tasks such as music searching and automated analysis, ensuring its usefulness for a different sort of research. Multi-author collaboration and the continual updating of ‘publications in progress’ on CMME website can help push the humanities toward taking advantage of new online publication paradigms, while free accessibility on the web removes economic and institutional barriers common in academic publication.



Ancient Music for the 21st Century: the 'Ricerca' Project's Technological Initiatives

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Since its beginnings, the *Ricerca* Project (Centre d'Études Supérieures de la Renaissance, Tours, <http://ricercar.cesr.univ-tours.fr/>) has been dedicated to the publication of scores and works on the musical heritage of a widely conceived Renaissance, stretching from Petrarch to Descartes and spanning a large geographical extension. This initial vocation subsequently led to the creation of a series of databases dedicated to musicians and repertoires of the period (e.g., *Prosopographie des chantres*, *Messes anonymes du XV^e siècle*, *Corpus des luthistes*, *Patrimoine musical de Picardie*) and based on the systematic exploitation of targeted repertoires, the setting up of international research networks (e.g., England, Germany, Italy, Croatia, United States) and the development of innovative methodological and digital tools.

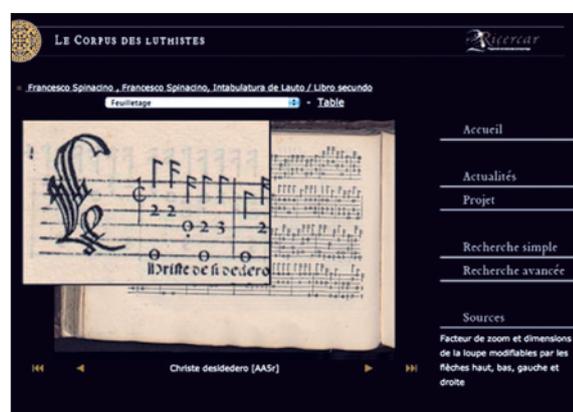


Figure 10. Francesco Spinacino, lute scores, source consultable on line.

Recent advances in Web 2.0 technology are currently enabling the *Ricerca* team to undertake the fusion of these databases with new projects either under way or projected. This initiative involves the development of database interactivity, exploratory and dynamic interplay between texts and music and cooperative and publicly based research enterprises. Simultaneously, the *Ricerca* Project is embracing a series of new and wide-ranging themes and objec-

tives with a view to gaining global insight into the musical Renaissance. Thus, the *Atelier virtuel de restitution polyphonique*, dedicated to polyphonies which have come down to us in incomplete form, combines repertorial reconstitution with an inquiry into the intellectual and anthropological movements of the Renaissance composer in action. Similarly, the research being done on the theme of *Musique et musiciens des Saintes-Chapelles (XIII^e-XVIII^e siècles)* combines prosopographical and institutional approaches with an investigation of the conditions of musical production and auditory reception from the Renaissance to the present day; the ultimate aim being to artificially recreate the audio and visual environments of caputular services from different periods and contexts.



Figure 11. Virtual environment for polyphonic performance.

Besides promoting important technological advances, the new orientation of the *Ricerca* Project comprises a strong practical dimension relevant to both the putting together and the diffusion of musical knowledge. The project notably benefits from the collaboration of specialised musical ensembles who adapt their repertoires and their way of playing (executorial modes, forms of improvisation, size of performances, etc.) on the basis of the results obtained through historical research. In this respect, the new initiatives being undertaken by the *Ricerca* Project point to the development of a 'new ancient music' or, at any rate, of new ways of thinking about and 'fabricating' Renaissance music, both as an object of study and as an important cultural phenomenon of the 21st century.

3.

Recommendations for Actions



What follows are some recommendations put forward to face some of the challenges outlined above and in particular to cater for the need for collaborative platforms in musicology, cohesion across sub-disciplines and innovative outlook on the field and its societal impact.

3.1 Formal Mapping Exercise (FME): Analysis of musicology as a pan-European discipline

To stimulate innovative research based on international cooperation, including interdisciplinary research generated within musicology itself, the discipline might benefit from a formal mapping exercise (FME) that would be a direct response to the nine issues identified in the section above, *Musicology in Europe: Key Elements of Analysis*. This exercise would identify diverse characteristics of musicology across methodologies, fields and national/local traditions, thus aiming to address the issue of fragmentation of musicological research.

For musicology to fully exploit its immense potential of an international discipline by nature, combining deep historical traditions with the most modern methodological approaches, comprehensive and updated information about musicological centres (not only major ones well known to the world community, but also smaller institutions), ongoing projects (and planned projects, for which the search for new partners is desirable), research staff (their field of expertise and areas of interest), available research infrastructures and technical facilities, is needed.

The result of the mapping should be an accessible online set of data containing as complete as possible

and constantly updated information on institutions and researchers active in the field of musicology. This information would serve the whole community of European musicologists to build networks and to better coordinate their efforts. It would also serve researchers from other disciplines as well as research and cultural institutions and the wider public to identify specialists from a specific field of music studies, whenever needed.

The spectrum of possible applications includes, for example:

- Search for individual and institutional partners for international projects, especially those that go beyond particular sub-disciplines of musicology;
- Looking for fellow specialists in a given sub-discipline in order to establish research cooperation and/or for personal consultation;
- Mutual assistance in obtaining information about (and access to) research sources (e.g., music scores);
- Acquisition of information on existing small and large research infrastructures, their access policies and terms of use;
- Identification of promoters and reviewers within very specialised fields of expertise;
- Search for research and teaching staff with specific expertise to recruit;
- Identification of research topics and trends across different European centres.

The mapping should mix and balance top-down elements such as contributions from existing institutions/organisations and bottom-up elements (e.g., any research group in a given discipline should be able to input and update information) that give individual researchers the opportunity to make their work known and available to other musicologists,

other stakeholders (e.g., policy makers) and the wider public through an open computer system.

From an organisational point of view, the undertaking needs coordination that could be ensured by a platform proposed under Recommendation 3, with the active participation of the largest musicological organisations whose role would be to disseminate information about the project and to see to it that there is an adequate response from the whole community. Indeed, relevant research governance, representing the various organisations involved, should be established to start up the project, oversee its development and ensure its quality. Such a new initiative does not require substantial financial input, mainly coordinated access to information that is available already in existing resources²² and via potential participants.

Focus on empirical data

Numbers of researchers and focus of research groups

This part of the FME has to be robust and detailed. It requires numbers broken down by nation and by research group, not only in terms of numbers of staff, but in terms of their employment status. The exact algorithm for this part of the FME must be consistent, reliable and usable. Furthermore, the way of reporting the nature of the work included in each research group must be agreed: what role, for example, do performers, composers, sound engineers play in a research group.

Distribution of research activity

Given the widely varying views on what constitutes musicology and its sub-disciplines, it is essential that the FME can agree a set of descriptors for musicological activities and musicologists' expertise. In addition, any mapping of musicology must take into account the fluid, and nationally conditioned, view of the subject. For instance, the dynamic nature of the relationship between musicology and musical praxis within individual national boundaries and across the continent will have to be taken into consideration. A single individual might want to call themselves 'a musicologist specialising in music and neuroscience', or a *dix-septième*; some may simply want to call themselves 'systematic musicologists' while others may divide their research effort equally between more than one field. Agreement on these descriptors and the way in which they should be used within the FME is critical.

Amounts of funding awarded in musicology

Ideally this should be collected from national and other

funding bodies themselves, rather than from institutions (see section on *Funding Instruments* below).

Outline of institutional structures

Location of researchers

The FME will need to take into account the variable structures of researchers in musicology, and quantify them across Europe, especially in terms of university departments, institutes, conservatories and *Hochschule*, and research academies.

Quality assurance

Transparent indicators are required for the FME about matters of peer review of grant applications, national journals, and other competitive activity within musicology.

Publications

In connection with ongoing endeavours, the FME needs to develop a methodology for giving usable comparative data on scholarly publications that enable comparison from one country to another to build up a coherent view across the research landscape in Europe.

Research infrastructures

There is a great need for an overview of research infrastructures in musicology in order to facilitate further maturing data-rich music research and to determine where strategic intervention by research funders and policy makers in general could be beneficial. Such interventions might be directed to issues such as:

- Integration of resources and research networks;
- Improvement of the generality and usability of toolsets;
- Stimulation of sustainable alternatives where possible.

They should, however, respect the bottom-up nature of current initiatives, since this guarantees the commitment of researchers on whose curiosity and needs these initiatives are founded.

A map of online resources across Europe would need to be developed as part of the FME. It would need to differentiate at least between:

- Data (e.g., databases, online catalogues; digital editions of corpora whether of sound, image or text);
- Research tools;
- Communication and collaboration infrastructures.

The mapping of research infrastructures in musicology would help recognise existing facilities and use them in the most pragmatic way. In the future, it could lead to the strengthening of the digital research infrastructures for data-rich musicology which is emerging but in much need of further development.

22. An interesting example of a resource for musicologists are *Golden Pages for musicologists*; see <http://goldenpages.jpheh.co.uk/>

Funding instruments

The FME needs to account for funding structures in each country as well as at the European level, not only in terms of funding bodies to which applications may be submitted, but also in terms of the overall funding models that support research inside and outside higher education insofar as it relates to musicology.

Identification of relevant trends

A very important and desirable result of the data collected in the Mapping Exercise would be to help identify and stimulate the sub-disciplines and specific subject areas which need support as either vanishing or emergent fields in musicology.

3.2 Stronger Networks

The diversity of researchers, institutions, methodological approaches, research traditions and research agendas is regarded as an asset of musicology. However, its potential to generate innovative and interdisciplinary research with higher societal impact could be much expanded against the European and global diversity outlined above.

Stronger networks for musicology are needed, both formal networks and, even more importantly, informal, bottom-up networks that connect individual researchers to others with similar or complementary interests. A recommendation for the musicology research agenda would therefore be to stimulate the emergence of a network-structured culture in the discipline by promoting:

- Openness and exchange;
- Awareness of and engagement with music research in other disciplines;
- Investigation at a local (i.e., national/regional) level of what currently absorbs musicologists.

However, it should be acknowledged that networking and collaborative research come at a cost. At the level of research funding schemes, this should correspond to new funding opportunities for musicology prioritised by *ad hoc* international partnerships and consortia of national funders and research organisations (e.g., on the model of the ERA-NET scheme promoted by the European Commission).

3.3 New Interdisciplinary Platform for Music Research

As indicated in the paper, there is a growing need to manage the expanding scope and epistemological diversity of today's musicology, and to counteract

its disciplinary and geographical fragmentation. A possible strategy might be to create a multi- and interdisciplinary platform to develop collaboration across the whole discipline.

Such a platform could promote:

- Start up of the mapping exercise described above;
- Establishment of stronger networks as outlined above;
- Support for vanishing disciplines as well as emerging new trends;
- Mobility of (particularly young) researchers;
- Collaborations and exchanges for teaching and training;
- Visibility and impact of the research through conferences, publications, and interactions with media and the general public.

EUROPEAN ORGANISATIONS – POTENTIAL PLATFORM SUPPORTERS

ISM

International Musicological Society primarily representing historical musicology
<http://www.ims-online.ch/>

ESEM

European Seminar in Ethnomusicology representing ethnomusicology
<http://esem-music.eu/>

ESCOM

European Society for the Cognitive Sciences of Music representing systematic musicology with a focus on its largest sub-discipline, music psychology
<http://www.escom.org/>

3.4 Towards Sustainable and Innovative Music Research

Like most research areas, musicology has generally benefited from the economic growth, globalisation and technological progress in the last decades. It has also become vulnerable to changes in those developments. For example, in many countries the recent financial crisis has had serious repercussions for research budgets, and questions as to the utility of the humanities in particular are often raised. Disciplines that do not have a convincing explanation for how they repay society for its investments in money, labour and resources may be facing drastic budget cuts.

It is important therefore, already now, to design strategies for sustainability and preservation of musical traditions, data and knowledge and to think through the consequences these strategies may have for present-day choices. This could be

done, for example, within the ESF Forward Look format, which, by bringing together key players in a research area, aims to produce assessments and recommendations of the highest scholarly quality while at the same time putting forward as yet unimagined, adventurous approaches. Specific topics that may be discussed in such a context include:

- The societal importance of musical diversity;
- How to preserve the world's music as a human biocultural resource;
- Exploiting the obvious interdisciplinary appeal music has to interconnect music research to a variety of other disciplines, creating fresh research perspectives and new ways of highlighting music's societal importance;
- Creating a strategy for incremental music research in order to ensure that source materials, research data, knowledge, publications and other outcomes of research projects can be easily sustained and transferred to others after the projects' completion;
- Exploring the potential of sustainable developments in research at large, including initiatives towards open access to publications, data sharing and collaborative, open research.

3.5 A Final Word

This discussion paper aims to highlight the main issues important for the future of musicology as a research and academic discipline. It does not provide a detailed diagnosis of its situation nor a clear plan for its further development. In response to the request of the ESF Standing Committee for the Humanities it reflects, however, on a possible way forward to establish the diagnosis and develop a roadmap for strengthening European musicology and its impact. At a time when the presence and significance of music in the lives of individuals and societies is substantial, musicology could and should provide visible support for this development.

Musicology, as this paper demonstrates, is a fundamental discipline of the humanities but at the same time could be seen as a model for interdisciplinary and collaborative research integrating humanities and other research domains. Musicology has much to offer society and the research community under the condition that it undertakes efforts to improve its organisation and at the same time receives more support from policy makers in research and higher education. This paper and its recommendations should open a wide discussion on the way forward for musicology to realise its potential.

Annex

List of Participants

ESF Strategic Workshop Musicology (Re-) Mapped

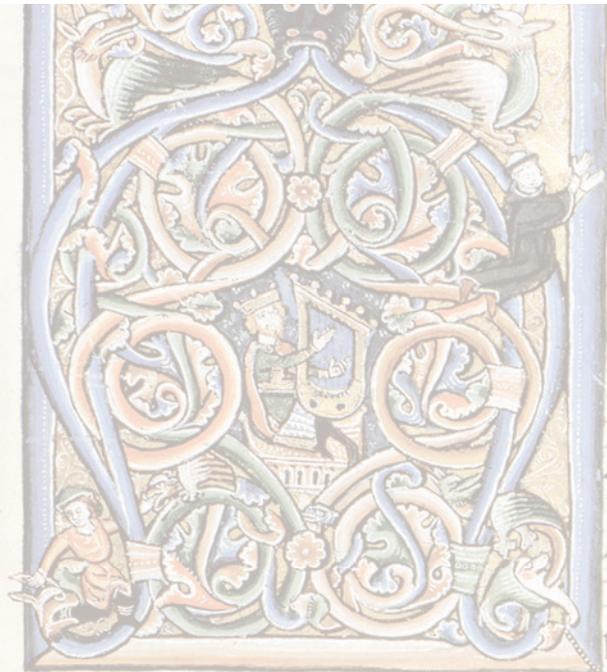
Polish Academy of Sciences, Institute of Arts, Warsaw (PL), 18-21 November 2009

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NOTE ZEVAVU



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