



AEC EARLY MUSIC PLATFORM CONFERENCE

# REPORT

***‘The Spirit of the Place’: historically-informed performance in historically appropriate buildings, acoustics and cultural settings***

**Conservatorio di Musica “Arrigo Pedrollo” di Vicenza**

**4th–6th April 2014**

**Vicenza, Italy**

The Association Européenne des Conservatoires,  
Académies de Musique et Musikhochschulen (AEC)

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## AEC Early Music Platform – a new departure

At the AEC Early Music Platform meeting in Bremen in April 2012, an important decision was taken to re-align future EMP meetings into an alternating annual pattern of Forums and Conferences. There will still be an event of some kind each year, but the two new types of event will each take place biennially; the AEC EMP Forum will be held in odd-numbered years (2013, 2015, etc.) and the AEC EMP Conference will be held in even-numbered years (2014, 2016, etc.).

The format of the AEC EMP Conferences will be close to that of existing meetings but with an even greater emphasis on the presentation of a selected theme viewed through a number of different facets in carefully planned presentation sessions. The shape, content and purpose of the new AEC EMP Forum is explained in more detail below but its two key features will be a stronger emphasis on discussion among the delegates and a close integration with the profession through the co-location of each Forum with a major early music festival, possibly running on a 6-8 year cycle based on close association with 3-4 such festivals. This new departure will have several benefits:

- It will allow themes presented at one Conference, and the discussions initiated during break-out groups at that conference, to be taken forward and developed in parallel discussion seminars on agreed topics to be held at the following year's Forum
- This will enable debates to be prolonged beyond the confines of the conference; it will let them mature subsequently over a period of a year (perhaps facilitated by online discussion groups on the new AEC Website); it will allow them to become grounded in specifics and, hopefully, will lead within twelve months or so to clear conclusions and possible proposals for action. It will also provide a mechanism for generating suggestions from delegates attending the Forum for the fine-tuning of the following year's provisional conference program and for possible longer-term future conference themes
- Meanwhile, conference planning on a two-year cycle will not only aid the construction of consistently coherent and relevant conference programs; it will also offer more scope for inviting prominent guest presenters, whose schedules are often fixed much too far ahead for an annual planning cycle

A key feature of the new Forums is that they will be staged concurrently with a major early music festival. This will strengthen further the ties between conservatoires and festival organizations, between the teaching and performing identities of professional musicians active in the early music area and between students and the individuals and organizations through whom their future careers will grow. As well as the parallel discussion seminars, there will be a plenary, round-table discussion forming the center piece of each Forum.

# Introduction of the EMP 2014 'The Spirit of the Place'

## *Historically Informed Performance in Historically Appropriate Buildings, Acoustics and Cultural Settings*

Historically-informed performance aims to situate modern performances of early – as well as not so early – music within a context that takes account of all the factors affecting the performances that were closest to a particular work's composition, or which were musically significant and well-documented revivals. As far as possible, historically-informed performers try to re-enter these original contextual 'environments' in all their dimensions: the instruments used and their numbers; temperaments, pitches, etc. employed; contemporaneous ideas on musical performance as contained in treatises; eyewitness accounts, and so on. Among the factors forming the environments explored in historically-informed performance, 'place' – the geographical region, city, building, even room – associated with first or early performances of a work is one of great importance, and one where sometimes we are fortunate today still to be able to re-enter, in the most literal sense, the world of our musical predecessors. Just to stand for the first time in a building like the Thomaskirche in Leipzig or St. Marks in Venice is to feel an additional connection with the music we know to have been composed for these spaces. To be able actually to perform repertoire in its original 'habitat' is a privilege that cannot fail to convey numerous insights into what may have gone on in the minds of its original creators and performers. We all know that 'place' embraces more than just the physical phenomenon of stones, bricks and mortar. A room or building responds to the light that falls into it and temperature of its surroundings in a myriad of subtle ways that influence the emotions we feel within it. But, more than that, we connect a place with its history – with what the stones have witnessed and heard, and how events and sounds have somehow permeated its very walls. It is this deeper and more intuitive quality that we often refer to as the 'spirit of the place'; and it is this relationship between a place, its spirit and its music that we shall be exploring at the Early Music Platform conference in Vicenza in 2014. The setting could hardly be more appropriate for such a theme. Vicenza, the city of the great architect Palladio, is a location where buildings famous both for their architectural beauty and for their history are to be found in as high a concentration as anywhere in the world. Part of our EMP conference will be held in Palladio's famous Teatro Olimpico, while, on the second day, we shall venture outside the city itself to the Villa Contarini, where we shall experience the extraordinary acoustic effects of the 'sala della chitarra rovesciata' the 'room of the upturned guitar'. In this unique space, architecture, sound and spirit are truly intertwined, in that the room is designed so that the sound of the performers, located at the highest level, is projected downwards to the audience below as though through the sound-hole of a guitar. Speakers have been specially selected for their interest and expertise in questions concerning the 'spirit of the place' and the influence of this contextual dimension upon historically-informed musical performance. We hope that their insights and the extraordinary venues in which we shall be gathered will combine to make this a truly memorable and inspiring meeting of the Early Music Platform.

# PROGRAMME

Friday 4 April		
14:00 – 15:00	Registration at Conservatorio	Cloister
	Informal Networking with refreshments	
15:00 – 16:00	<p>Welcome words by</p> <ul style="list-style-type: none"> <li>- <b>Jacopo Bulgarini D’Elci</b> - Vice Mayor of Vicenza</li> <li>- <b>Gian Nico Rodighiero</b> - President of the Conservatory of Vicenza</li> <li>- <b>Peter Nelson</b>, EMP working group chairman</li> <li>- <b>Enrico Pisa</b>, Director of the Conservatorio</li> <li>- President of the Conservatorio</li> <li>- <b>Maria Nevilla Massaro</b>, President of the Consortium of Veneto Conservatories</li> <li>- <b>Jeremy Cox</b>, AEC Chief Executive</li> </ul> <p>Introductory speech by <b>Don Giulio Cattin</b>, Musicologist</p>	Conservatorio Sala Concerti
16:00 – 16:15	<b>Music Performance by the Early Music Department of the Conservatorio in Vicenza</b>	
16:15 – 17:30	<p><b>Session 1: Keynote Presentation</b></p> <p>The ‘Spirit of the Place’: ‘Ancient Spaces - Changed Societies: Performance Attitudes and Reception Then and Now’.</p> <p>Presentation by <b>Anthony Rooley</b>, Lutenist, The Consort of Musicke Ensemble and Schola Cantorum Basiliensis, Basel</p> <p>Moderated by <b>Thomas Drescher</b>, Schola Cantorum Basiliensis</p>	
17:30 – 18:00	Guided tour of the Conservatorio (2 groups)	
18:00	Transfer to Teatro Olimpico	
18:30 – 19:30	Concert	Teatro Olimpico
20:00	Dinner offered by the Conservatorio	Restaurant Malvasia

Saturday 5 April		
09:30	Registration continues at the Conservatorio	Cloister
10:00 – 11:00	<p><b>Music Introduction by students of the Conservatorio</b></p> <p><b>Session 2a: Nuancing historically-informed performance I</b> How buildings and their acoustics not only influence our performance decisions on a practical level but can also form part of the web of information from which we build our understanding of early performance</p> <p><b>Case Studies Presentations by:</b></p> <p><b>Dorotea Baumann</b>, University of Zurich</p> <p>Moderator: <b>Johannes Boer</b>, Royal Conservatoire The Hague</p>	Sala Concerti
11:00 – 11:30	Informal networking with refreshments and possibility to print boarding passes	
12:00 – 13:30	<p><b>Session 2b: Nuancing historically-informed performance I</b> 'Spirit of the Place': the 'Listening Gallery' project (RCM and V&amp;A Museum, London) <b>Giulia Nuti</b></p> <p>Moderator: <b>Jeremy Cox</b></p> <p><b>Discussion in Breakout Groups</b></p>	6 rooms
12:15 – 13:30	<p><b>Session 3: Nuancing historically-informed performance II</b> How our early music curricula might be structured to develop students' sensitivity to place and the possible role of mobility schemes and joint programmes in this</p> <p><b>Discussion in Breakout Groups</b></p>	<p>5 Rooms</p> <p>Moderators: A -Peter Nelson B -Elina Mustonen C - Johannes Boer D - Greta Haenen E - Thomas Drescher</p>
13:30 – 14:30	Lunch at the Conservatorio	Ex Coro
14:30 – 15:00	Buses to Villa Contarini	



15:15 – 16:00	Guided tour of Villa Contarini	Villa Contarini
16:00 – 17:00	<b>Session 4: Nuancing historically-informed performance III</b>  <b>Music Introduction by students of the Conservatorio</b>  <b>Case Studies Presentation by:</b>  “Distant Choirs: Reflections on the placement of musical forces in sacred music” by <b>Bruce Dickey</b> , Schola Cantorum Basiliensis  <b>Moderator: Greta Haenen</b> , Musikhoschule Trossingen	
17:00 – 18:00	<b>Session 5</b>  Historical aspects and acoustical properties of the Auditorium at Villa Contarini by <b>Marco Di Pasquale</b> and <b>Davide Bonsi</b> , Conservatorio “A. Pedrollo”, Vicenza  Moderator <b>Terrell Stone</b> , Conservatorio di Musica di Vicenza  with music performances	
18:00 – 18:30	<b>Closing Session</b>  <ul style="list-style-type: none"> <li>- Summing up of themes by <b>Jeremy Cox</b></li> <li>- News from the AEC</li> <li>- Closing Remarks</li> </ul>	
18:30 – 19:30	Closing Cocktail	
19:30	Buses back to Vicenza – free dinner arrangements	

Sunday 6 April		
10:30 to 12:30	Networking Activity : ‘Palladio Tour’ – guided tour of the city centre of Vicenza	

Friday 4<sup>th</sup> April

## Opening Event



The opening event began with a musical introduction by the students of the Conservatorio. The event followed with the welcoming words of: **Jacopo Bulgarini D'Elci**, Vice Mayor of Vicenza, **Gian Nico Rodighiero**, President of the Conservatorio; **Peter Nelson**, EMP working group chairman; **Enrico Pisa** Director of the Conservatorio; **Maria Nevilla Massaro**, President of the Consortium of Veneto Conservatories; **Jeremy Cox**, AEC Chief Executive.

The opening event ended with a music performance by the Early Music Department of the Conservatorio in Vicenza. Music performance took place at the *Sala Concerti* of the Conservatorio di Vicenza. The students have performed **Antonio Vivaldi's** (1678 – 1741) Concerto in sol minore RV 103 per flauto dolce, violino e continuo (*Allegro, ma cantabile – Largo - Allegro molto*)



**Fabiano Martignano** - *flute dolce*  
**Angelica Selmo** - *clavicémbalo*

**Isobel Howard-Cordone** – *violin*  
**Sofia Gonzato** - *viola da gamba*





## Don Giulio Cattin

### *Introduction to “The Spirit of the Place”*

“The AEC (European Association of Conservatories, Music Academies and Musikhochschulen) chose to set this event in Vicenza, a city which never had a courtship through the centuries (despite the nobility was close to imperial identity). Nevertheless the lords of Verona, Padua and Milan tried to conquer and subjugate Vicenza which ended surrendering to the Serenissima (the Republic of Venice). Vicenza is the place where many great personalities were born: they were politicians, soldiers, writers, architects, artists and musicians. The most important period for Vicenza was under the Venetian supremacy: the highest moment was during the XVI Century, when the Accademie dei Costanti e degli Olimpici were founded (1555). During those years the famous architect Palladio renewed the whole city with frescos, churches, buildings and mansions and his masterpieces: the Basilica and the Olympic Theatre, which was defined as “the eighth wonder” even before the inauguration in 1584.

All this was possible with a deep study of architecture, acoustics, proportions and music. It is well-known that theatrical performances were inspired by medieval religious dramaturgy, which was especially developed in southern Germany, Austria and Swiss. Cividale, Padua and Venice are the northern Italy cities where we can find the majority of these sources. Religious performances were connected to festivities like the Annunciation (25th March), the Good Friday with the visit at Christ’s tomb, the planctus of the Virgin, the Resurrection, and the Pentecost. The texts are taken from the Volgata or the Officio and the dialogues are the best parts to be dramatized in music.

Thanks to his master Daniele Barbaro Palladio became a famous and esteemed architect and he designed the Theatre for the Accademici Olimpici: the building was completed after his death (1580) with the perspective scenes of Vincenzo Scamozzi (1552-1616). The inauguration was on 3rd March 1585 with the performance of the Sofocle’s Oedipus the King, in a transcription of Orsatto Giustiniani and with the choral music of Andrea Gabrieli. In Venice, 1573 Silvio Belli, born in Vicenza, published a work concerning proportion and proportionality in architecture Palladio was strongly influenced by.

In Renaissance polyphony the most common intervals were unison, octave, fifth, fourth, major third, minor third and minor sixth; major sixth was not so used because it seemed dissonant. Nevertheless, Palladio used it even though it was not common in the polyphony of XVI century. In that period only the nobility could enjoy the Arts, because the rich could pay architects, sculptors, painters and musicians. Nobility’s life was divided between the city and the countryside: in the city they managed public and private responsibilities (negotium), in the countryside they managed their properties (otium). Banchieri used to say that otium, especially during the summertime in the countryside, should be filled with a simple remedy: painting, poetry and music.”

## Session 1: Keynote Presentation

*The 'Spirit of the Place': 'Ancient Spaces - Changed Societies: Performance Attitudes and Reception Then and Now'*

Presentation by **Anthony Rooley**, Lutenist, The Consort of Musicke Ensemble and Schola Cantorum Basiliensis, Basel

Moderated by **Thomas Drescher**, Schola Cantorum Basiliensis



### Anthony Rooley

*'Ancient Spaces – Changed Societies: Performance Attitudes and Reception Then and Now'*

*"Although we meet in Vicenza, I take the listener to nearby Mantova – and address two different eras, with very different spaces, places, people and circumstances. This serves to underline the complex issues of performance space and repertoires created for very specific circumstances – and then the inevitable shifts of emphasis, consciousness and purpose that happens with the passage of time.*

*We cannot, ever, enter the 'mind-space' of an earlier time – not even a time close to us – yet we can make an effort to do so, knowing that we are 'doomed to failure' – yet knowing the effort is immensely enriching and deeply rewarding, and in so many ways. The original space (the building and the mind-conscious space) created repertoires that today we love to review – and we performers (and students of performance practices) must be aware of our role as 'translators' – from 'then' to 'now'.*

*With that conscious process of translation in mind, we become infinitely finer communicators of past times. Yet we can, and must, learn to use all the latest techno-skills as best as we can – for a 'You-tube' clip of entering Isabella d'Este's 'music grotto', perhaps with the music she was familiar with playing over, can do more than a thousand words, in a moment!"*



"Here we are in wonderful, historically potent Vicenza, - so keyed in to Palladio and his Patrons and their inspiration! And Italy is so full of such inspired places, with creative history literally dripping from the walls...

I choose to move not far from here, to Mantova, and to the very 'beginning of the 16<sup>th</sup> century in order to introduce this Conference to some quite specific ideas, ideals and time and place...

I often think of Isabella d'Este, almost with the familiarity of a servant with whom she shared her intimate love of music '(perhaps I am identifying with Bartolomeo Tromboncino?). But of course she happened 500 years ago... so how can I feel even the faintest affinity with her?

Yet I do! I love ancient things, and even collect them in a modest sort of way! I love poetry, and music, and performance... And I have devoted my working life to these very matters... I do not have access to her funding (which she overstretched in a myriad of ways) - yet we do have much in common.

However - her functioning spaces and mine are so very different... She enjoyed her 'studiolo' for intimate music presentations; her 'grotto' for yet more personal sharing, and her 'musica privata' for wholly personal, profound musical ecstasy. And I have had to traverse the entire World for over 45 years, performing in a multitudinous variety of spaces, in virtually every cultural independent entity you could list...



*Here she is with her sister Beatrice.*



*Leonardo da Vinci's famous sketch.*





As she grew older, she grew more serious, more private, and more thoughtful.

She was always accompanied by her very own music - well, her favourite composer, Bartolomeo Tromboncino, was always at her side or creating the latest setting of poetry gifted to her by caring visitors.

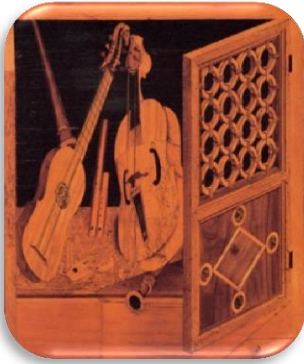
Her every room was devoted to music... As she aged, she retired inside herself, becoming ever more 'hermit-like' and had created a new 'grotto', deep in the lower floor of the palazzo. As you enter via the narrow steep stairs, it is almost as if entering a tomb - a preparation for the after-life? The curved ceiling is emblazoned with her favorite musical 'impresa' - a curiously fashioned symbol employing the entire musical signs for rests - silence eternal?



Isabella d'Este's Mantova - the palaces, studioli and grottos all reflected her taste and love of music, which she collected with the same assiduity as her love of ancient medals, emblems, sculptures, and with her passion for employing the finest artists - Mantegna, Costa, Leonardo etc. her spaces were filled with artistic viability, both visual and aural - almost more passionately that ever before, anywhere, perhaps?

But change happens, does it not? Her collections of 'things' got separated and were spread across Europe, and her music fell silent, virtually until the 1970's! Our recording of Trombocino was the first ever solely devoted to his 'frottole', and that was done in 1980! We looked at her deep 'grotto', and heard the same music as she had contemplated, but our version was recorded in London, in decca's purpose-built recording studio

created in the 1930s! If only I had a 'You-tube' clip that took us inside her 'studioli'...



Almost 100 years later we stay in Montova, but find a very different scene... out of town, beyond the marshes south west of the city was a barren land in Isabella's day, that had now become the site of a 'Pleasure Palace', created in the 1530s-40s by Giulio Romano for his patron Federico II Gonzaga, Marquess of Mantova. It was known as the 'Palazzo Te', and was the ultimate expression of 'mannerism'.



By the 1590s the 'Palazzo Te' was the place for which many of the early madrigals of Claudio Monteverdi were composed – for his patron Vincenzo I Gonzaga and his wife, Eleonora. The musically advanced composing style of the Fourth Book of Madrigals, 1603 was a sound-response to the Sale del Psiche and its highly erotic murals – 'mannerist' madrigals for 'mannerist' architecture!

As the Gonzaga Dynasty rapidly slipped into decline, Monteverdi moved on, very sensibly, to Venice – and his life and music changed considerably...



Today when we perform any repertoire from the 16<sup>th</sup>, 17<sup>th</sup> and even 18<sup>th</sup> Centuries, we are performing in a context utterly different in every respect from the original – yet the more we attune ourselves to the original circumstances, conditions and philosophy (as well as patronal idiosyncrasies!) the better we can entertain our audience of today. Integrity is the key-note; but at the same time an artistic liberty (in the spirit if not the letter) of the original will lend an authority that might draw the modern minds of our audience into a deeper appreciation.



There 'Ancient Spaces' still have a drawing power, yet our audience size alone (whether it be 100, or 1000) make it a practical impossibility – these spaces are not, can never be 'Concert Halls', yet it was those spaces that created the poetry and music that we present today. 'Then' and 'Now' has changed – forever – and we artists must inform ourselves of original context) and then present with a warm integrity our own deep assimilation of the past circumstances.

And, do you know, I believe in the immediate future, using our very latest technologies and 'You-tube' as an initial inspiration, we can create visual and aural 'clips' that might take the breath away with inspirational force by revealing the crazy circle of devotees to 'sprezzatura' – the 'Power of the Present Moment' would be well-served. If the strength engendered by the highest level of searching musicology could be assimilated with the very best-informed performances, with the most advanced use of digital facility, drawing on the original spaces, the fruits might well astonish us all!"



## Concert in Teatro Olimpico



Conservatorio organized for EMP participant's wonderful concert in Teatro Olimpico, where the students of the department of the Early Music have performed famous pieces of **Antonio Vivaldi** (1678 – 1741)





# Programme of the Concert

**Antonio Vivaldi (1678 – 1741)**

**Concerto in Fa maggiore**

Per 2 corni, archi e b.c. RV 538  
*Allegro-Largo-Allegro non molto*  
**Daniele Bolzonella** *corno I*  
**Giuseppe Viscomi** *corno II*

**Concerto in re maggiore**

Per ciolino solo, archi e b.c. op. III n.9  
Estro Armonico RV 230  
*Allegro-Larghetto-Allegro*  
**Isobel Howard-Cordone** *violino solo*

**Concerto in Fa maggiore**

Per flauto dolce, archi e b.c. RV 433  
*"La tempest di mare"*

**Fabiano Martignago** *flauto dolce*

**Magnificat in sol minore**

per soli, coro e orchestra RV 610  
*Magnificat anima mea Dominum, Et exultavit,  
Et misericordia, eius Fecit potentiam  
Deposuit potentes, Esaurientes implevit  
Suscepit Israel, Sicut locutus, Gloria*

**Orchestra:**

*Violini primi* – **Fabio Missaggia, Alessandra Scatola, Isobel Howard-Cordone, Laura Scipioni**  
*Violini secondi* – **Matteo Zanatto, Elisa Saglia, Maria Ines Zanovello**  
*Viole* – **Manuela Masenello, Simone Siviero**  
*Violoncelli* – **Pietro Trevisol, Massimiliano Varsio**  
*Violone* – **Luigi Baccega**  
*Oboi* - **Roberto De Franbceschi, Remo Peronato**  
*Cembalo* – **Stefano Amitrano, Angelica Selmo**  
*Órgano* – **Nicola Lamon**  
*Tiobra* – **Cristina Lyssimachou**

**Vocal ensemble:**

**Lia Serafini** - *Direttore*

*Soprani* - **Elena Bertuzzi, Anna Giulia Simoni, Federica Gasparella**  
*Alti* - **Matteo Pigato, Chiara Balasso, Alice Francconi**  
*Tenori* - **Matteo Benetton, Michele Fracasso, Daniele Cernuto**  
*Bassi* – **Guglielmo Buonsanti, Alessandro Colombo, Luigi Marasca**

## Saturday 5<sup>th</sup> April

Second day of the conference started in Sala Concerti with the Music performance of the Conservatorio students.

**Niccoló Sari** played on the clavicembalo. He performed:

*Toccata prima dal Primo Libro di toccate* of Girolamo Frescobaldi (1583 – 1643)



**Silvia De Rosso** (*vioal da gamba*) and **Elena Ponzio** (*viola da gamba*) performed

*J. Richmann (1685 – 1718) Sonata II in re minore da "Six Sonates a une viole de gambe et base continue" (Amsterdam, 1710 circa) Preludio argo, Allegro, Adagio, Allemanda, Corrente, Sarabanda, Allegro, Giga*



## Session 2a: Nuancing historically – informed

*How buildings and their acoustics not only influence our performance decisions on a practical level but can also form part of the web of information from which we build our understanding of early performance*

Case Studies Presentations by:

**Dorothea Baumann**, University of Zurich

*‘Spirit of the Place’: the ‘Listening Gallery’ project*

*(RCM and V&A Museum, London)*



**Dorothea Baumann**

*How buildings and their acoustics not only influence our performance decisions on a practical level but can also form part of the web of information from which we build our understanding of early performance*

*“The role of room acoustics will be illustrated based on well documented music performances from the 16th to the 19th century. A short introduction into the main aspects of analyses will be given: physics of sound production and distribution in open and closed spaces, physiological and psychological aspects of individual acoustical experience and the aim of perception, followed by thoughts on shape, size, construction and decoration of typical rooms, halls, theatres and churches used for music in in order to discuss the general acoustical background of experience in relation to cultural history of music, music genre and style”.*



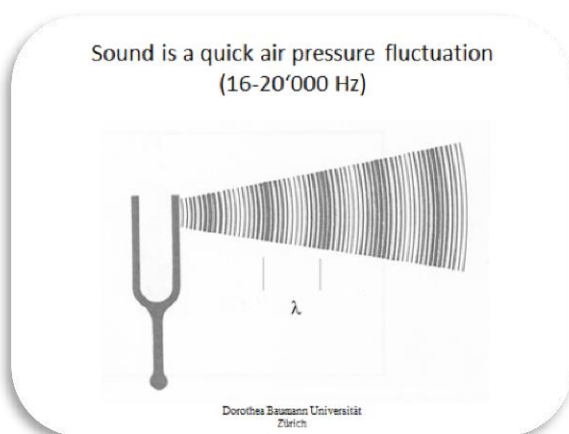
*How buildings and their acoustics not only influence our performance decisions on a practical level but can also form part of the web of information from which we build our understanding of early performance*

"With pleasure I participate in this meeting in order to discuss a topic which was at the centre of my interests for so many years. My study of room acoustics always was related to performance practice and very soon also to early music. When I

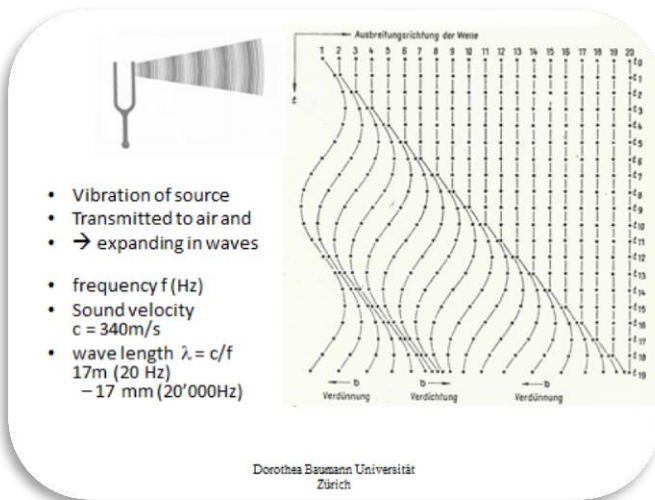
started, colleagues from sound recording knew most on room acoustics, and if I say colleagues I mean recording technicians as well as musicians involved. The situation of recording requests an analytical way of listening and we become aware of acoustic details which normally escape our attention.

The topic of this meeting goes further than this. It assumes that we already know how to control the important relation between the sound of the instrument and the hall. It further assumes that the instrument and playing techniques are best adapted to the "early music" performed and that the instrument, because it is so well prepared to play this music, will teach us a lot on how to play. We assume that instruments are part of the acoustic memory, coming to life whenever a well instructed human being starts to play them. Furthermore the title given to this lesson acknowledges that historic spaces are an additional part of that acoustic memory. The question is, if thanks to the effect of these spaces the instruments and voices will produce their best sound. This is not always the case as you all know. But sometimes it is indeed true. That is why I would like to give you during the following 20 minutes a short introduction into aspects related to the analyses of such sound events.

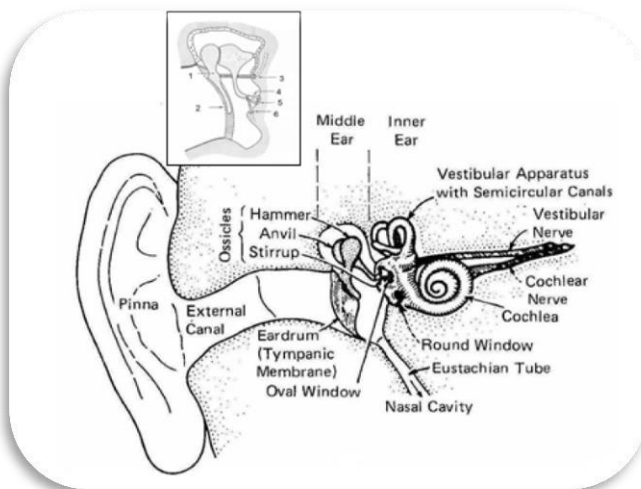
## 1. Room acoustics



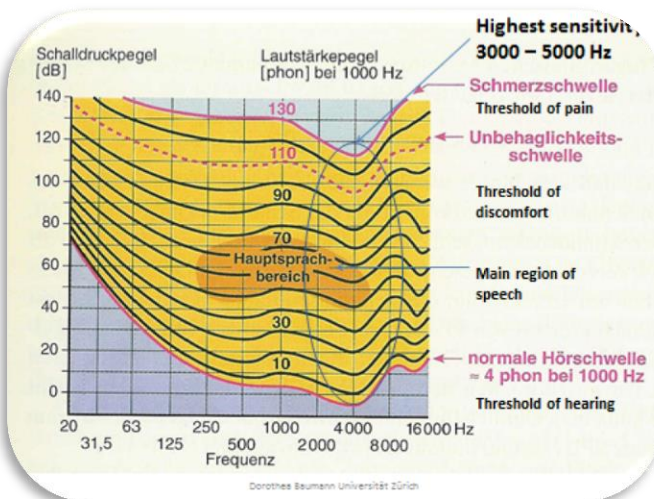
Sound is always produced by some kind of mechanical movement of the sound source which is set in motion to produce periodic vibrations, which transmit to the air particles and expand as waves. Sound waves are propagated through the air. They reach the listener's ears, enter the outer ear canal and set the tympanic membrane at its end into vibration (see figure 1-3). The movements of the tympanum are transmitted to the three auditory ossicles of the middle ear, the hammer, the anvil and the stirrup. The transmission of vibrations from



the ear drum to the oval window by the ear ossicles is controlled by the middle ear muscles. The combination of both muscle contractions causes a deformation of the ear drum and the membrane over the oval window. This process changes frequency characteristics and sensitivity of the perception system (figure 3). The stirrup sets the membrane-covered oval window into movement and moves in and out like a record player stylus, creating pressure waves within the cochlea, which is filled with lymph liquid. The sensitivity of the auditory system is not linear but varies according to frequency. Maximum sensitivity lies between 3000 Hz and 5000 Hz (see figure 4).

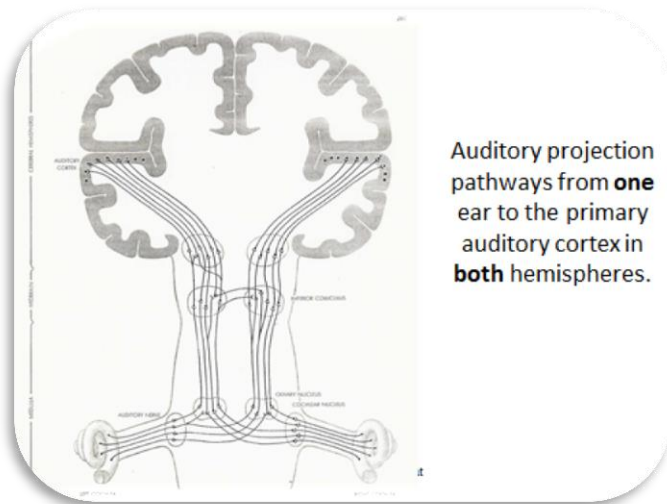


Of all the sensory organs, the ear transmits the most information per time unit. Binaural perception from the side towards the front enables us to experience the unbelievably minute time differential of 0,03 ms (3 hundredths of milliseconds) or differences in direction of only 1 cm or 3°. Only 3 ms are needed to perceive middle frequency pitches with a soft attack. Our sense of touch is able to detect vibrations through the fingertips with the same temporal resolution. The ear requires up to 28 ms to perceive tone colours and pitches produced with a hard attack, and up to 50 ms (1/ 20 secs.) to perceive low pitches. It is known that a continuous film sequence needs at least 20 images per sec., and that at least 50 ms are required for the visual perception of each individual image. Much longer, namely 160 ms, is needed to feel an object. The conscious recognition of a smell or taste takes seconds if not minutes. An important consequence of this is that the slower sensory perceptions benefit from

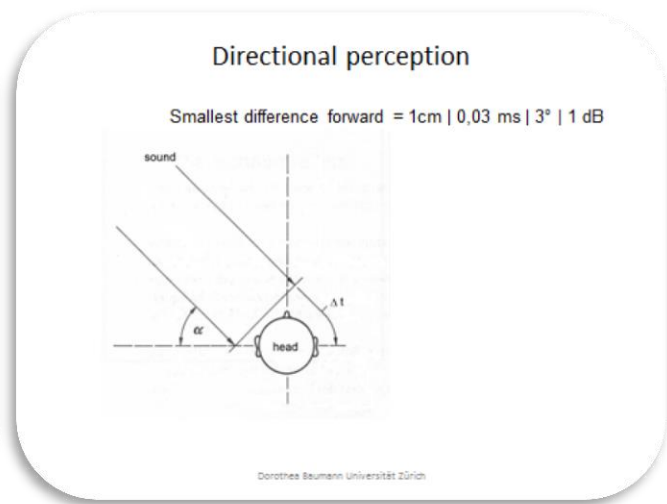


faster auditory perception. This is a reason for the strong coordination between eye and ear, but also for the importance of room acoustics (see figures 5-8).





Auditory projection pathways from **one** ear to the primary auditory cortex in **both** hemispheres.



### Directional perception

Smallest difference forward = 1cm | 0,03 ms | 3° | 1 dB

Figures 5 - 6

The intensity of sound attenuates rapidly with the distance travelled. If sound spreads evenly in all directions intensity decreases by a factor of four as the distance doubles, by a factor of a hundred with a tenfold increase in distance. This makes it clear just how important it is to have sound reflections in order to improve acoustic communication.

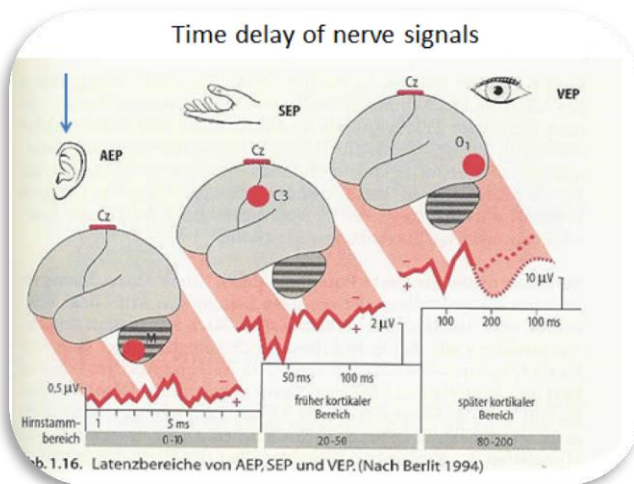
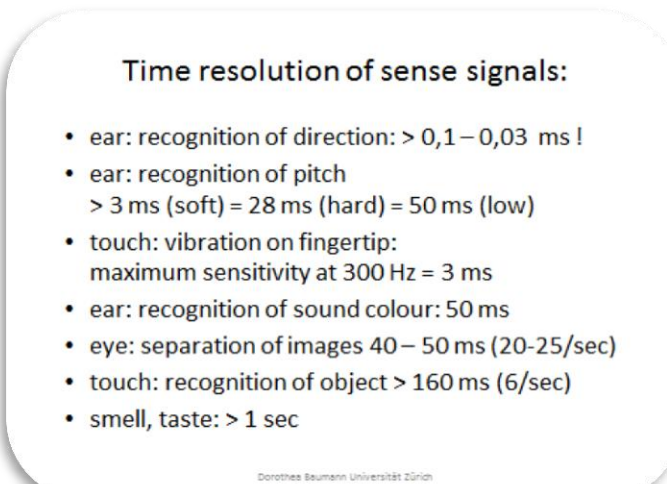


Abb. 1.16. Latenzbereiche von AEP, SEP und VEP. (Nach Berlitz 1994)



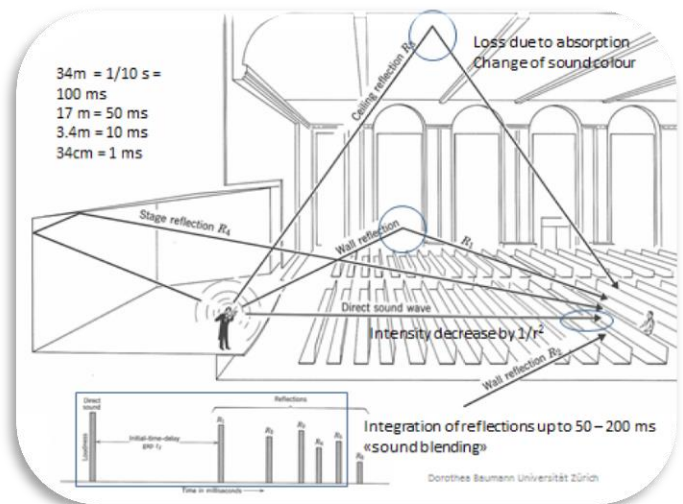
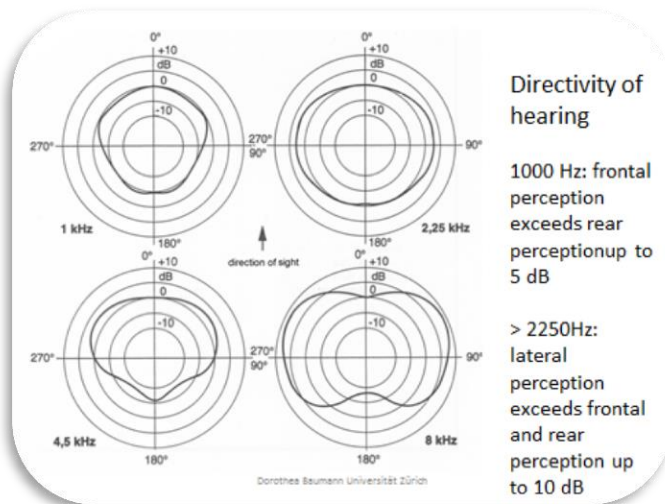
### Time resolution of sense signals:

- ear: recognition of direction: > 0,1 – 0,03 ms !
- ear: recognition of pitch  
> 3 ms (soft) = 28 ms (hard) = 50 ms (low)
- touch: vibration on fingertip:  
maximum sensitivity at 300 Hz = 3 ms
- ear: recognition of sound colour: 50 ms
- eye: separation of images 40 – 50 ms (20-25/sec)
- touch: recognition of object > 160 ms (6/sec)
- smell, taste: > 1 sec

Figures 7 -8

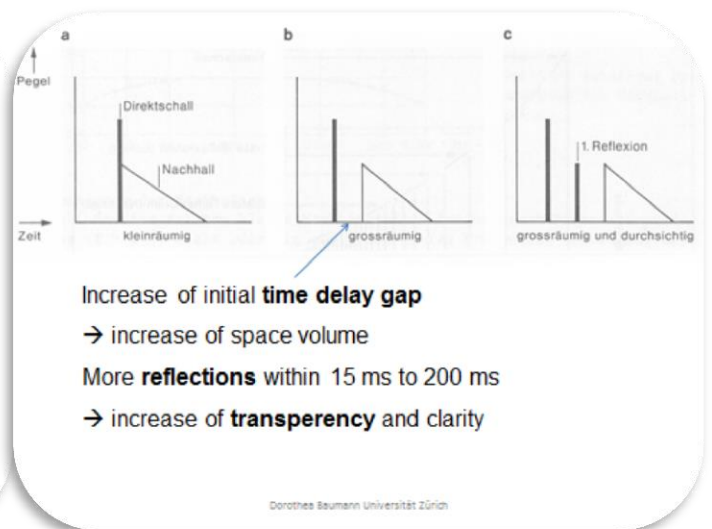
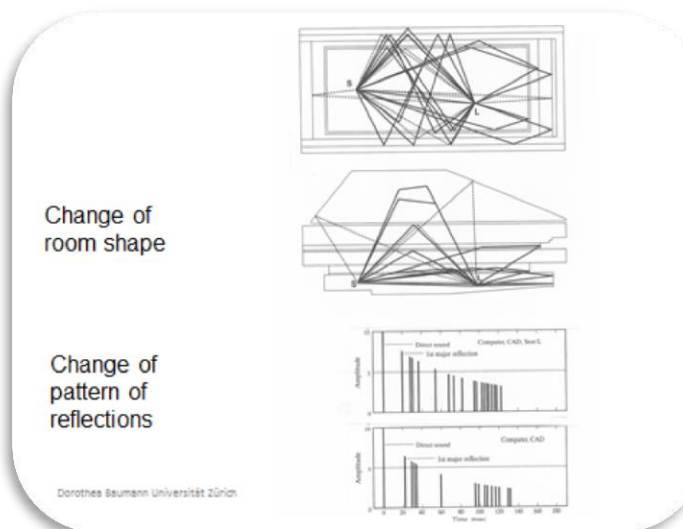
In geometric acoustics, the propagation of sound waves is represented by rays that reflect off the enclosing surfaces of a space according to the same laws of reflection used in optics. Each listener is located in a field of sound waves that arrive in staggered succession, radiating from a sound source at a speed of approximately 340 m/sec and reflecting off wall surfaces and sufficiently large obstacles: the direct sound arrives first, then follow reflections from the surfaces, the nearest side wall, the other side wall, the ceiling, the rear wall as well as further reflections from more than one surface such as reflections from the ceiling and rear wall and so on (see figures 12 and 14). From the time pattern of incoming sound reflections the brain produces a certain spatial impression, using direct sound to locate the sound source. The initial time delay gap between direct sounds and the first reflection as well as further early reflections transmit information on the hall's size.



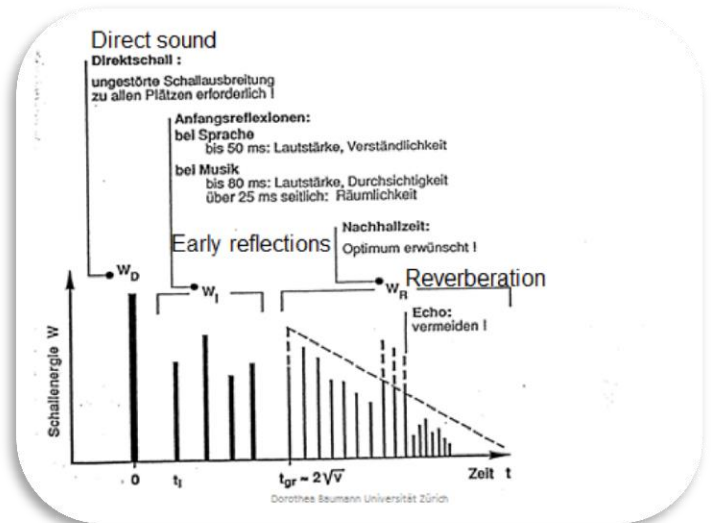
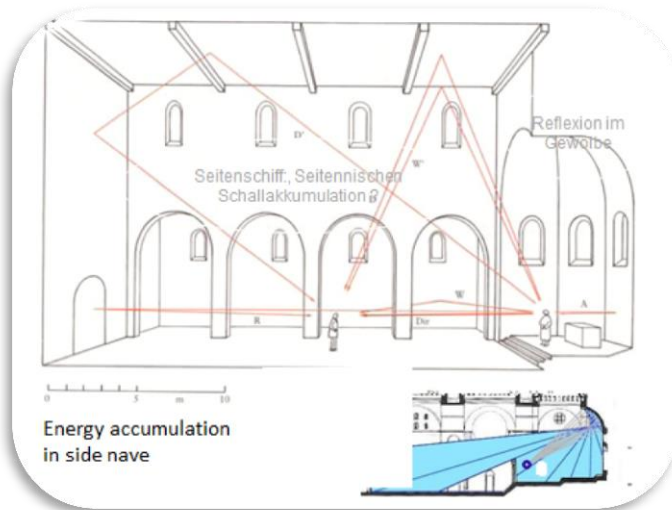


Figures 9 -10

A musician perceives space like enhancing (or sometimes disturbing) light that follows the sound of the voice or the instrument. Reverberation of the hall persists when the sound of the voice or instrument falls silent. A hall also has influence on sound colour, enhances or swallows certain frequencies. For a listener it is not easy to separate the two different effects, reverberation and change of frequency spectrum, but a musician feels if sound characteristics of the own voice or instrument are changed. He or she also feels if a room's answer is coherent, coming in one package, or if a part of the expanding sound waves gets trapped in a vault or a side nave or another connected space where reflections are going forth and back before they are sent back to the main volume of the hall with some delay. Such a delay is causing incoherence in the room's answer, like blurring, stuttering or even an echo.



Figures 11 - 12



Figures 13 -14

Time delay is crucial for perception. Sound expands at a speed of about 340 m/sec.

- Very early reflections, earlier than 15 ms (from a distance of less than 5 m) under certain circumstances are perceived as separate events and may be disturbing
- Reflections with a delay of 15 to 50 ms, or for music up to 80 ms or even longer, generally are perceived as belonging to the same event. They build what we just called enhancing light or halo.
- Reflections arriving after 50 ms (from a distance greater than 17 m) only enhance the sound impression if they are a part of a well sequenced, coherent package with steadily decreasing loudness.
- Too loud reflections arriving after 50 ms have a blurring or covering effect or even produce an echo.

Our aural perception combines the direct sound and the successive sound reflections to an overall impression: we perceive the sound as more lucid and intense the closer the interval between the series of reflections within a time frame of 50 to about 200 milliseconds. The early reflections strengthen the impression of the sound and improve its clarity (see figure 12). Later reflections are heard as reverberation (see figure 14). Reflections from the side strengthen the impression of spaciousness. Reflections from the side are particularly valuable as our ears are between 6 to 10 decibels more sensitive to lateral sound than from other directions (see figure 9). Any alteration in the shape of the space changes the paths of reflection and the sequence in which they arrive at the listener. Likewise, the pattern and sequence of reflections change as the position of the listener or the position of the sound source changes (see figure 11).

The reverberation time RT, an exactly measurable value, is defined as the time required for the sound pressure level to drop to one thousandth of the initial value, which corresponds to a decay of 60 dB (see figure 20). The reverberation time is frequency dependent and therefore

has to be measured (or calculated) for every frequency, and is represented in the form a reverberation decay curve. An individual value without qualifying frequency generally denotes the mean value of the reverberation time for frequencies between 500 and 1000 hertz.

### Absorption factors

- Marble  $\alpha = 0.01 - 0.03$  (125 - 4000 Hz)
- Beton, stucco  $\alpha = 0.02 - 0.05$
- Wood on firm ground  $\alpha = 0.04 - 0.06$
- Parquet floor, on cavity  $\alpha = 0.07 - 0.06 > 250$  Hz
- Upholstered chair  $\alpha = 0.30 - 0.70$  (125–4000 Hz) (20mm)
- Person on upholstered chair  
 $\alpha = 0.6 / 0.96 / 0.85$  (125/1000/4000 Hz)  
 not much decreasing with lower seating density

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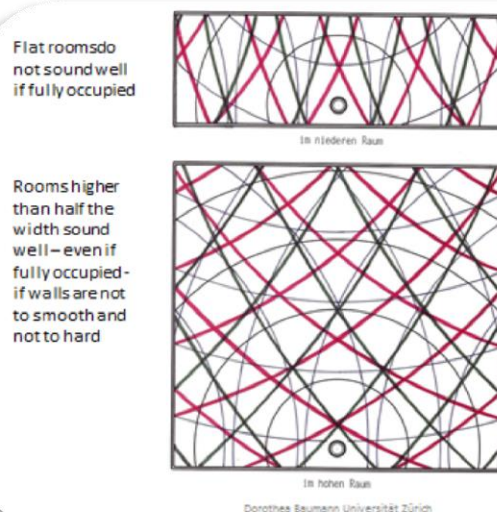
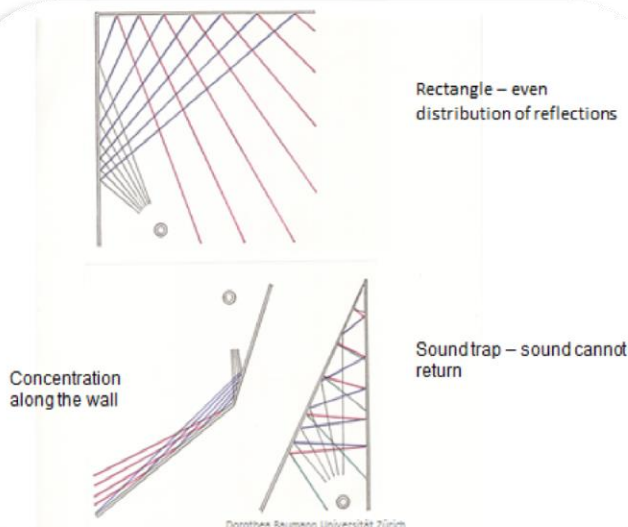
### Absorption

- Diminishes reverberation time
- Diminishes intensity of reflections
- Helps to diminish energy accumulation
- Special absorbing material → change of sound colour!!

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Figures 15 - 16

The reverberation time RT is only one of several important factors in the description of a room's acoustics. It is not identical with the reverberation perceived when the music ends or is interrupted by a pause. Audible reverberation depends on the loudness of sound before the break, on noise and on the listener's actual sensitivity. Higher and medium frequencies are absorbed by porous materials such as curtains, carpets, and mainly people in the space. Hollow wooden floors, wood panels and the volume below the seats absorb low frequencies (see figures 15-16). The zones occupied by listeners are a considerable absorbing surface in relation to a room's total inner surface, even more so in halls with low ceilings (see figure 18).



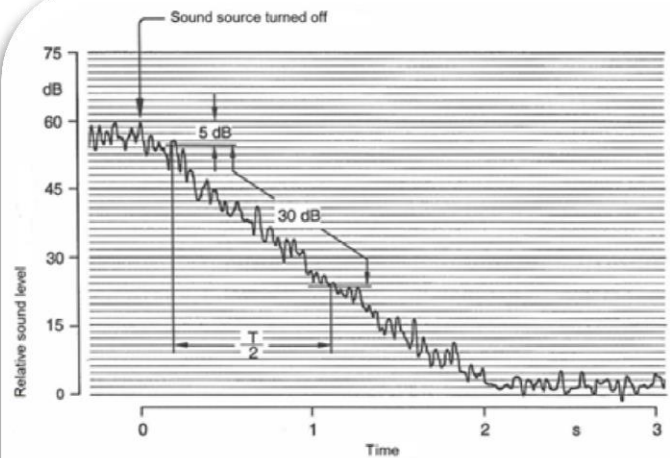
Figures 17 - 18



Reflections off wall structures:  
 $d \ll \lambda$     $d \approx \lambda$     $d > 3 \lambda$   
 (d = distance between elements).

frequency	wavelength $\lambda$
20 Hz	17.00 m
100 Hz	3.40 m
1'000 Hz	0.34 m = 34 cm
10'000 Hz	0.034 m = 34 mm
20'000 Hz	0.017 m = 17 mm

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$$T = 0.163 \frac{V}{A} \quad A = \sum_{i=1}^n \alpha_i S_i$$

The reverberation time T depends on volume of space and total absorption of surface

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Figures 19 - 20

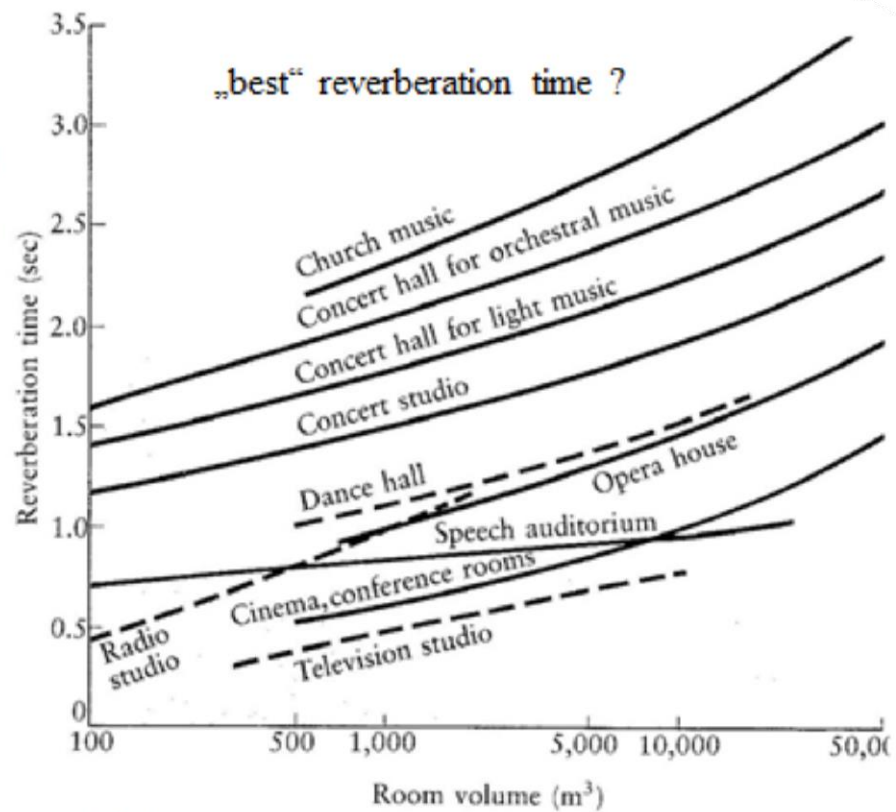
As with light, the edges of reflecting surfaces and irregular surface structures in the region of the sound wavelength can result in sound diffraction. A surface with a modulated structure with projections and recesses in the range of a centimetre to a decimetre reduces hard reverberations and flutter echoes between parallel surfaces. Such a surface also absorbs certain frequencies. For example, this mixture of absorption and diffuse reflection is an important factor in the good acoustic properties of the famous Golden Hall in the Musikverein in Vienna (see figure 22).

Were there standards for acoustic conditions for specific events (see figure 21)? Can we define “best” acoustic conditions for a specific performance? No! Impression of reverberation time is depending on style of music and background of experience! There were no standards! Musicians adapt!! There are dry halls with good acoustics as well as halls with “appropriate” reverberation time with bad acoustics. Reverberation time is only one factor of acoustic quality!

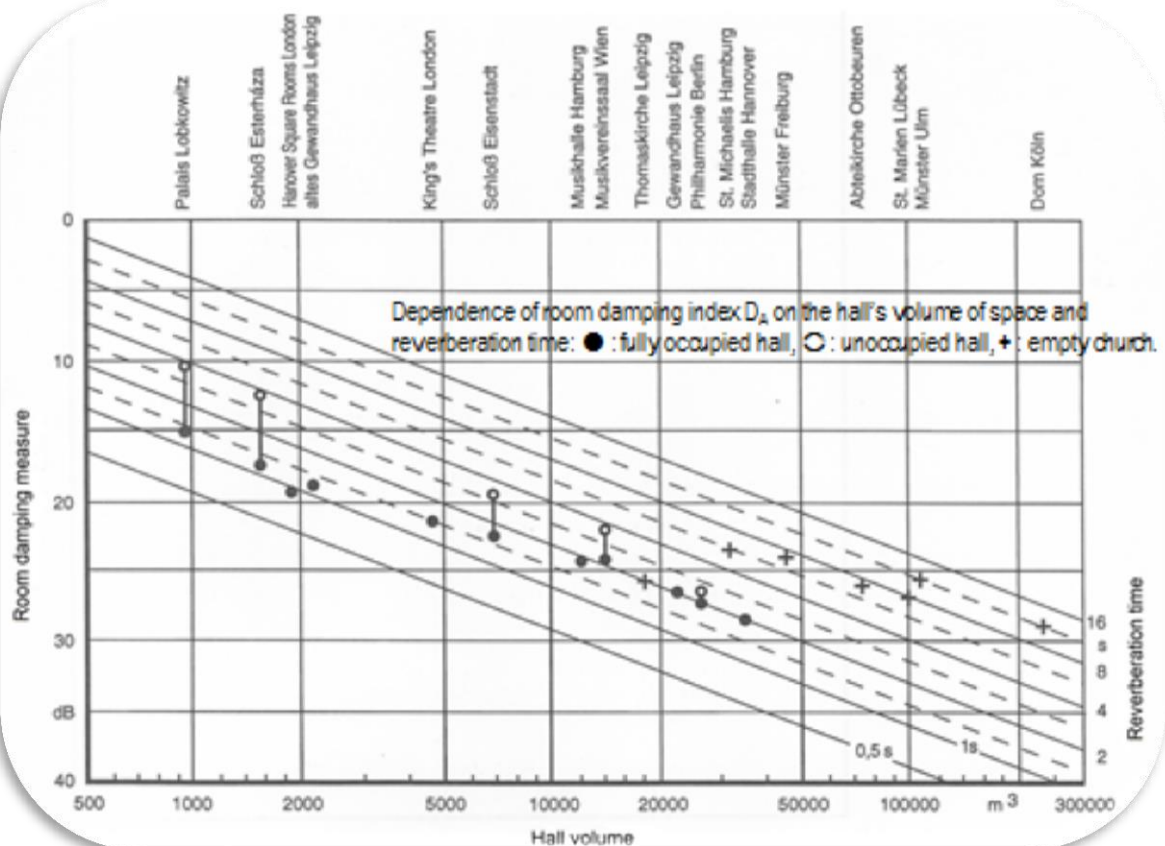
In order to answer such questions we need information on the general background of the acoustical experience of listeners and musicians involved. These questions are widely discussed in my book *Music and Space: A systematic and historical investigation into the impact of architectural acoustics on performance practice followed by a study of Handel's Messiah*, published by Peter Lang Verlag in 2011.



Depending  
on style of  
music and  
background  
of  
experience!



Prof. Dr. G. Baumann Universität Zürich



Figures 21 – 22

## 2. Rome 1690 – 1710: Palazzo della Cancelleria (see figures 24-34)

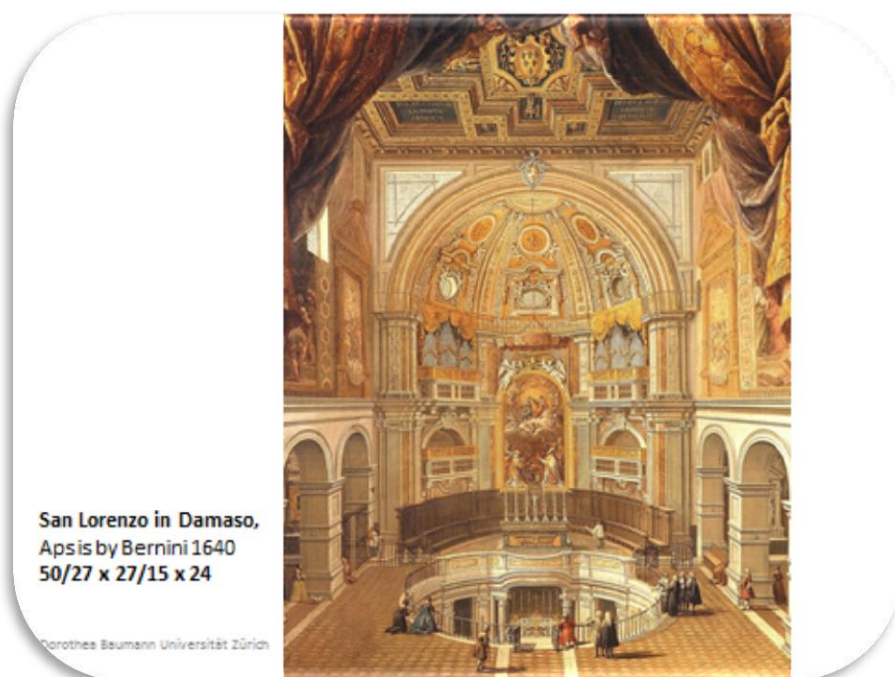


Since 1690 the *Accademia dell'Arcadia* met several times a week in Rome in memory of Queen Christina from Sweden who died in 1689. Meetings with conversations and concerts took place in the palaces and gardens of their members to which belonged the cardinals Benedetto Pamphilj, Carlo Colonna, Pietro Ottoboni and Marchese Ferdinando Ruspoli, and also famous artists such as the musicians Bernardo Pasquini, Alessandro Scarlatti and Arcangelo Corelli. Corelli (1653-1713), in 1677 began service for queen Christina of Schweden, in 1684 became concert master of cardinal Benedetto Pamphilj, in 1687 took residence in *Palazzo Pamphilj* (today *Doria-Pamphili* on the Via del Corso). In 1690 Pietro Ottoboni from Venice was elected pope under the name of Alexander VIII. He nominated his grandnephew Pietro Ottoboni cardinal and vice chancellor for life time. Cardinal Ottoboni died in 1740 and held office the *Palazzo della Cancelleria Apostolica* under 6 popes. He disposed over great wealth and became one of the leading patrons of the arts. Corelli became his music master in April 1690 and lived in the *Palazzo della Cancelleria* until shortly before his death. This enormous building housed architects, doctors, priests, poets, painters and musicians. Corelli directed regular concerts in the private and public rooms of the Palace, in the court yard, on the piazza, and in the Palace church *San Lorenzo in Damaso*. The *Accademia dell'Arcadia* met here once a week.

Handel's first italian oratorio, *Il trionfo del Tempo e del Disinganno*, was performed during lent 1707 most probably at the *Teatro Ottoboni* in the *Palazzo della Cancelleria* with Corelli as concert master. This theatre with a ground plan of about 9 x 9 m and a height of 10 m is comparable to the still extant *Cuvilliés-Theater* in Munich (1753) which is about 1.70 m shorter. The *Teatro Ottoboni* was regularly used by the *Accademia* and Handel composed at least one cantata for this room.



Alessandro Scarlatti's Oratorio *La Passione del Nostro Signor Giesù Cristo*, which was presented during Easter 1708, had to be performed in the public audience chamber of the *Cancelleria*, the *Sala Riaria* on the piano nobile, which only exceptionally was opened for such a non official event, because the *Teatro Ottoboni* was closed at that time due to construction. (A colleague taking part in the meeting in Vicenza commented that the acoustics of the *Sala Riaria* lack low frequencies. I guess that the bad condition of the wooden coffered ceiling with open joints is the reason because such a surface is a very effective absorber of low frequencies.)



The account books of Ottoboni give many details on performances directed by Corelli, also during the services held in *San Lorenzo in Damaso*, the church of the Palazzo della Cancelleria. Musical function here always was liturgical. The number of musicians paid for services varied between 3 and 50! Obviously the importance of the event had an influence on the number of musicians. Looking from the point of

view of room acoustics this variety of the ensemble's size could give the impression that acoustics were ignored. But such a modern view does not take into consideration the quality and flexibility of these musicians. Musicians could be placed close to the event, directly at the side of the altar in the same niche, under the same vault. In this case a very small group of 2 or 3 musicians was sufficient. Here there was no intention to fill the whole room but only to reach those close to the altar. On the other hand larger groups were placed on special wooden platforms, often rising in amphi-theatrical steps, also in order to reach a larger group of listeners. In fact about half of the documented events under Corelli in San Lorenzo used 3 musicians only, a bit less than 50% had 25 musicians, and for 4% the ensemble was very large with 50 or more musicians. These large and very large ensembles were placed in the apse constructed by Bernini to the left and the right of the altar on special platforms, with an organ for each side.

A comparison to actual rooms permits to estimate the acoustic effect of historical performances: In the fully occupied main nave of San Lorenzo measuring 27 x 15 m and with main a volume of space of 10'000 m<sup>3</sup>, the large ensemble had an intensity comparable to a

large symphony orchestra in a large concert hall (not regarding the difference of sound colour and playing technique), mainly if the main nave was richly decorated with cloth and reverberation time was shortened. The main difference to a concert hall of the later 19th century is the enormous room height of 24 m and the 12 m deep side naves, which are acoustically coupled and where sound accumulation depends much on the number of persons sitting there. A modern hall with a comparable volume of space is the Tonhalle in Zürich: 36 x 26/19 x 13 m, 11'400/8'900 m<sup>3</sup>.



A similar intensity was reached by an oratorio performance in 1698 with 50 strings and 38 singers in the *Oratorio della Chiesa nuova*, a rectangular hall of 17 x 25.5 m and 25.5 m high, built in 1640 by Borromini. Acoustics here are clearer than in San Lorenzo, partly because this space of 11'000 m<sup>3</sup> has no side naves (where energy would be lost). The sidewalls are covered by wood panels absorbing excessive low frequencies.

In 1689, Lulier's Oratorium S.

Beatrice was performed by Corelli with 74 strings in the *Galeria of Palazzo Doria-Pamphilj*. The gallery is 51 m long, 15 m wide and 21.40 m high. Close side walls and a vaulted ceiling at such height usually work quite well. It would be interesting to reconstruct this event. (Modern concert halls are all wider, shorter and lower, as for example the famous Golden Hall in Vienna with 45 x 19 x 17.70 m.)



## Typical sizes of Corelli's ensembles

- 1 St. + B.c. = Cantate a voce sola
- 1-2 St. + B.c. + 1-2 Vl. Solo = a 2 voci
- 1-2 St. + B.c. + 2 Vl solo + x Vl+ Vla + Violone
- St. + Concertino + 12 Str. Ripieno = 15 tutti
- St. + Concertino + 23 Str. Ripieno = 25 tutti
- St. + Concertino + 45 Str. Ripieno = 50 tutti
- ausnahmsweise 74 oder sogar 100 Streicher

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31 x 12.50 x 19

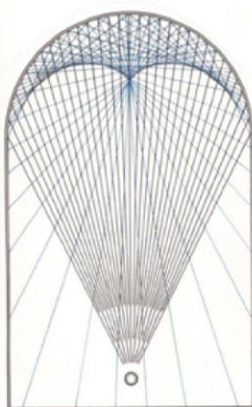
Rome, Palazzo Bonelli in 1708

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The largest documented ensemble was used for Alessandro Scarlatti's Oratorium Il regno di Beata Maria, performed 1705 in the Palazzo della Cancelleria with 100 string players. The number "100" could stand here for „very large“, but documents show that the performance took place in the open court yard of the Cancelleria, and for that rectangular space of 32 x 19 x 24 m with a volume of 14'600 m<sup>3</sup> such a high number of strings is appropriate. The open ceiling has the acoustic effect of a completely absorbing surface. Experience shows that open court yards often have excellent acoustics because main reflections are coming down from the side walls, but only if the musicians are on a relatively high platform! Additional downward reflections are caused by the ceilings of the galleries and horizontal cornices.

Romanic vault

First reflections come down



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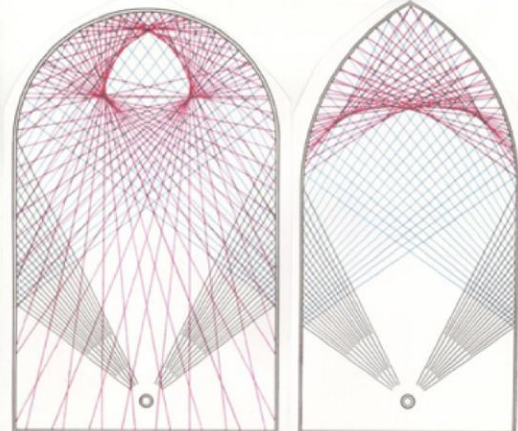
Gothic vault

First reflections go upward only



Reflections at the side walls

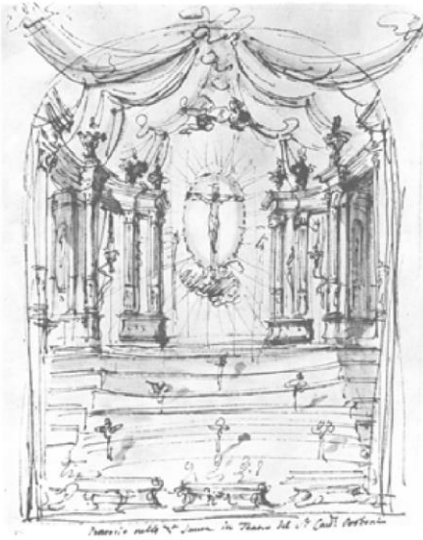
↓  
2nd refl  
down



2nd refl up  
only!

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## Conclusions (see also handout)

If we look at the examples given, the first impression is a broad variety of room sizes and number of musicians, but if ordered systematically clear rules become evident and we see different categories of ensembles: solo chamber music with 1-2 singers and B.c., the same plus 2-3 violins or 2 violins, 1 viola and 1 violone; for a larger chamber cantata the same group was used as concertino with a ripieno of about 12 strings; for larger rooms the tutti was increased to 25 or, for special events, even to 50 strings. The performances with 74 and 100 strings were exceptions for special occasions which were justified by the room size and the situation in the open court yard."

## Session 2b: Nuancing historically – informed performance I

### *Spirit of the Place: 'The Listening Gallery' project*

*(RCM and V&A Museum, London)*

Giulia Nuti

Conservatorio della Svizzera Italiana, Lugano



Giulia Nuti

*'Spirit of the Place': the 'Listening Gallery' project (RCM and V&A Museum, London) Integrating music with exhibitions at the V&A*

"Music has played a central role in popular and elite culture throughout European history, spanning sacred and secular spaces and representing private and communal experiences. The Listening Gallery, collaboration between the Royal College of Music and the Victoria and Albert Museum, is a project in which recordings of music were integrated into two major exhibitions at the V&A:

- *Baroque 1620-1800: Style in the Age of Magnificence*, a temporary exhibition (Spring 2009).
- *Medieval and Renaissance Europe*, a series of eleven newly refurbished permanent galleries, which re-opened in December 2009.

The aim of the Listening Gallery is to illustrate how the past is to be discovered in music as well as other arts by providing music appropriate to the objects on display in the V&A's galleries.

The incorporation of music within the Galleries was motivated by a desire to broaden accessibility and to enhance visitor engagement.

The aim was to use music in a way that would help visitors to imagine the medieval and Renaissance worlds (as well as the Baroque world): to convey emotion and feeling – according to the V&A Brief – or to enhance the *affetti*, we might say, of the painting, sculpture or object on display.



Music was also envisaged to help communicate the overall theme of a room and to signal changes between the rooms; underlining for example, the shift from a devotional focus in one gallery to another focused on noble life.

The exhibitions provided an opportunity to incorporate music into galleries covering sacred and secular, northern and southern European art, between 1100-1800.

The unparalleled variety of musical styles, genres, and instruments covered required musicological knowledge drawn from a wide range of sources; in addition, the input provided by performers for the recording of some of the music proved essential, particularly for the earliest works where hands-on music making is often the best means of addressing interpretative questions.

The final choice of pieces was underpinned by rigorous musicological research: the criteria was that recordings had to follow the performance practices of the time and the instruments used in them had to be either originals or faithful copies.

The new recordings used in the galleries were made by students at the RCM, with contributions from members of staff, as well as other professional performers.

In the last ten years the use of recorded music in museums has become increasingly prevalent, especially in Museums of musical instruments:

- Musical Instruments Museum, Brussels
- Cité de la Musique, in Paris
- The Music Gallery at the Horniman Museum

In non-music specialist museums the use of “period music” to help visitors immerse themselves in a historical period is relatively common, but music is used more to create an atmospheric background to visiting and viewing, with no obvious or strong connection between the pieces of music and specific objects.

The final strategy for integrating music with the V&A’s Galleries was informed by other museums’ approaches, but it was most directly influenced by the At Home in Renaissance Italy exhibition, held at the V&A in 2006. This exhibition focused on the domestic context and function of decorative art objects, paintings and sculpture in Tuscany and the Veneto. The emphasis was on the socio-cultural context to which the objects belonged, in contrast to traditional art-historical approaches.





The exhibition included a section on entertainment in the home including a display about music incorporating musical instruments and printed music books.

Together with colleagues, I was commissioned an hour's worth of music contemporary with this display. The pieces we recorded were dances, madrigals, bicinias, that might have been performed and heard in a Renaissance home, (not pieces written for court or church) and also reflected the range of instruments that would have been found there. The

provenance of the pieces, like all of the objects in the exhibition, was specifically from the north of Italy.

So visitors were able to listen to an attempt at a reconstruction of the domestic Renaissance sound-world that was as accurate as possible and to which the objects in the displays also belonged. The attention to detail was also reflected in the attempt to capture the acoustic environment of a Renaissance interior by making the recordings in the music room of the Palazzo Budini Gattai in Florence.



The methodology and rationale employed for At Home in Renaissance Italy was equally applicable to the Baroque exhibition and the Medieval & Renaissance Galleries and initial discussions between the V&A and the RCM soon developed into a formal collaboration that was funded by an award from the

Arts and Humanities Research Council.

The first phase of the project focused on integrating music within the temporary exhibition Baroque 1620-1800; in this exhibition, there was one instrument.



To this we associated Nicola Matteis's Chaconne – Matteis had arrived in London from Naples 10 years previously and was quite the most accomplished violinist in town. Other objects in the Galleries had more subtle musical connections:

*Ralph Agutter,  
Violin back with  
Royal arms and mottoes  
Of the House of Stuart,  
England, c. 1685*



This is the Model of the Chapel of St John the Baptist in the Church of São Roque, Lisbon, made in Rome, 1742–4 by Giuseppe Palmes, after drawings by Luigi Vanvitelli (1700–73). To this, we associated a movement of a Mass by the Neapolitan David Perez, who was called to Lisbon in 1751. In this recording, the RCM Baroque orchestra is conducted by Ashley Solomon; the soloists are vocal students from the College. The manuscript of Perez's mass is in the RCM Library, and this is a first recording.

This contrasted with the following room which was about domestic interiors and cabinets in England;



For this, students recorded extracts of RCM ms 2093 (Bull, Byrd, Weelkes) on the spinet by Stephen Keene, c. 1685, in the RCM museum. Like the objects in the displays, each piece of music was given its own label, which explained the significance of the recordings and gave the music object-like status. Evaluations demonstrated an overwhelmingly positive response to the music, and these two temporary exhibitions directly informed the planning for the Medieval and Renaissance phase of the 'Listening Gallery' project.

There are three broad categories of connections that were made in the new galleries between music, subjects and objects:

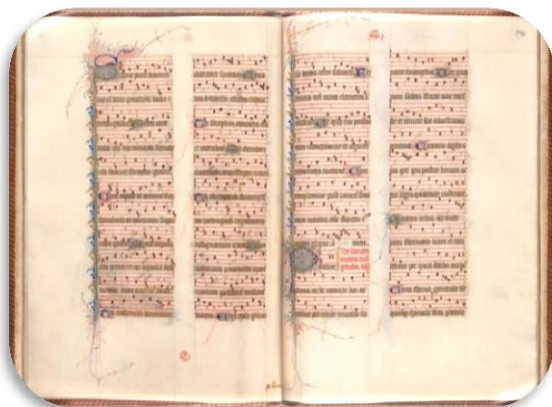
- The first includes objects with musical notation, whether service books for churches or private devotion, or objects with short inscriptions.
- The second relates to musical instruments, as well as depictions of them.
- The final category is a broad one, incorporating objects which have a contextual connection with specific pieces of music that is not immediately obvious from appearance alone. For example, altarpieces now in the Museum's collections once belonged in church contexts where music would have been performed as part of the liturgical calendars. In other instances, themes such as hunting or courtly love, which were represented as strongly in music and poetry as they were in the visual or decorative arts?



## Musical notation

This is the missal made for use in the Royal Abbey of Saint-Denis in Paris in 1350, contains exquisite examples of 14th-century illumination.

We chose the chant, 'Salve Pater Dionysus' which would certainly have been performed in the Abbey on the feast day of St Denis. This chant was performed and recorded in a local church by the students with professional singers under the direction of Jennifer Smith. The Saint-Denis Missal is now displayed in its own case with a touch-screen page-turning interactive alongside it.



That also allows the visitor to listen to the music written on the opening of the book in front of them, underlining both the original purpose of the book and the sacred context in which it was used.

The majority of recordings in the 'notation' category related to manuscripts from monastic or ecclesiastical contexts. However, there is a notable exception: an extremely rare serving knife with a broad-blade that was inscribed on both sides with notations dated 1550.



One side of the blade carries an inscription and notation related to a sung blessing before a meal, while the other side of the blade is decorated with a sung thanksgiving for afterwards. Flora Dennis located and transcribed the parts (the V&A knife is inscribed with the tenor part), RCM singers performed the short extracts:



### *The other side of the blade.*

The recordings made of the pieces on this knife demonstrated, for the first time, which the musical inscription was not simply decoration but could have been performed.





### Musical instruments

Only two of the instruments from the V&A collections remained on display in the museum: the harpsichord by Giovanni Baffo and the lute back, already featured in the Renaissance exhibition.

As the Baffo is not in playing condition, I recorded the Venetiana Galiarda from Gardane's *Nova Intavolatura* of 1551 on the nearest original Italian instrument, the beautiful Guarracino instrument in the RCM museum.

This contrasted with the lute, for which Jakob Lindberg recorded Neusidler's *Wacha mesa*, to represent northern European domestic music.



The decoration of the Casa Maffi ceiling includes the Nine Muses, seven of whom are depicted holding musical instruments such as the viol, organ, trumpet, double-flute, trumpet and tambourine. We made short recordings of these instruments to expose visitors to the distinctive sound that each instrument makes.

### Contextual connections



In this category of connections, recordings reflected the themes depicted on an object, or evoked the context to which the objects once belonged.





A large tapestry depicting hunting scenes provides a representative example: an anonymous 14th-century caccia, *Seghugi a corta e can per la foresta*, was chosen to underscore the hunting theme.

For the Gallery 63 “A world of Goods”

Devoted to world-wide trade in the 16<sup>th</sup> century, we chose “Fine knacks for ladies”, because in the text it talks about the ‘Orient’s pearl’. And for Gallery 64, “Renaissance art and ideas: Florence, secular, 1500” we recorded this “Quant’è bella giovinezza”, on Lorenzo il Magnifico’s text.

Benvenuto Cellini, *Head of Medusa*, Florence, c. 1545-50

## Conclusion

Over forty students at the Royal College of Music had the opportunity to study, rehearse and perform music that usually falls outside of the traditional curriculum. The process of performing, recording and working with professional musicians gave the students valuable experience for their future professional careers.

The project also made a significant contribution towards enriching curatorial knowledge of a number of objects in the collection.

The fruits of this research have been made available to an international audience through the physical displays and associated online content, as well as through published articles and conference papers.

Certainly, the final provision of music far exceeded the expectations of the project team and represents a unique approach in the museum sector.”

## The Listening Gallery Project team

### At the RCM

Aaron Williamon, Ashley Solomon, Giulia Nuti, Jakob Lindberg, Bill Lyons, Jennifer Smith, Paul Banks, David Burnand, Jenny Nex, Lance Whitehead, Sebastian Durkin, Jon Rule, and the students from the RCM who participated both in performances at the V&A and recordings at the RCM.

### At the V&A

Stuart Frost, Joanna Norman, Peta Motture, Flora Dennis, Glyn Davies, Kirsten Kennedy, Carolyn Sargentson, Chris Breward, Eric Bates, Peter Kelleher, Maike Zimmermann, Andrea Carr, James Yorke.

## Session 3: Nuancing historically – informed performance II

*How our early music curricula might be structured to develop students' sensitivity to place and the possible role of mobility schemes and joint programmes in this*

Discussion in Breakout groups in 5 rooms

*Developing early music students' sensitivity to place:*

- *Where should this be located in the curriculum?*
  - *How it is best taught?*
- *Is it something that might be reinforced:*
  - *Through student exchange activities*
  - *Through Intensive Projects*
- *Through Joint Programs between carefully selected partners?*

5 breakout groups have been discussing topics and they have proposed several initiatives:



### *Group A*

- Offering students appropriate rooms in festivals or even at museums.
- Encouraging more inter-institutional joint Projects – especially through personal contacts and leading person.
- Activate students to create and carry through their own projects
- Excursions and funding for this.
- Look for various partners: a. radio-television, b. sound engineers
- Offering Applied acoustics in curriculum
- Teaching which works for which room
- EU Programs - 'Europe Creative'
- Working closer with artists and managers on venues

## Group B

This is included in the curriculum every day, but are the students aware of it?

Teachers have opportunity to speak about those issues and make students aware of 5 W's:

**Who** are you (in this place?)

**Where** are you

**When** are you

**What** mood or passion

**Why** are you doing this?

- Perform as theatre – it starts when you walk on stage
- Perform something which already exists with needs to be given for
- Mostly working with an inappropriate spaces
- The art of transparency
- Private laboratory sessions for students

We teach this every day, but do we do so in a way that makes our students fully aware?  
Often difficult to make public performances in historic spaces. Not enough just visits like tourists.

## Group C

- One of the main items is the opposite interest between conservation (of historical locations and musical instruments) and the necessity to use them in order to have a realistic experience. We could simulate reality by virtual means acoustically (which is already common in certain fields) but also visually in order to add a contextual component “Sala di specchie I – Palazzo Ducale Mantova”.
- This artificial reconstruction will work stronger if there is some personal experience by the students with the real world. The risk of critical reflexing that is based on virtual instead of direct sensory experiences is an inappropriate standardization of performance practice with an adaptation to the limits of technology.
- Economics should not be the guiding force here. Rather play a concert twice in a smaller venue than on in a bigger place.
- We should not reject practice boxes with artificial acoustics if there is no alternative, but to feed the imagination of students; they should be exposed to a diversity of experiences outside the school. Montepulciano is an example of such a place, but less prestigious accommodation.
- Never the fewer students will have to cope with being bound to the limited means at their disposal. Exactly as organ players practice all repertoires on one instrument and

having the opportunity to play on another instrument they have to change tempo, articulation and registration.

- Teachers are normally carrying a lot of experience and therefore specific knowledge with them. They are “walking databases” with information on the topic of adaptation to diverse performance situation.
- This could be integrated more in the curriculum as a structural element of stepping out of the teaching room.

## *Group D*

- Not just acoustics, but sensibility to sound in relation to space, which is more as an musical emotional space as well, and how do we develop that sensibility of sound in relation with space.
- Joint Programs may be often a way to do this; there was a lot of support in principal and in actual financial terms within the European Union, - joint programs, designed and delivered jointly, and which incorporates some kind of European movements and mobility. And if you imagine, that you can spend one semester in Germany, one in Italy, and one in France, with the focus in each case on the repertoire, it could be a sort of a Master’s program.
- Instruments also matter. Modern copies are often louder to reflect modern performance spaces. The linkage between the instrument and the spaces is still very important.

## *Group E:*

- Use of ERASMUS exchanges could be a useful way of targeting to enable students (and staff) mobility to places and location where historical halls/churches/rooms are available.
- Use latest technological media can be used to familiarise students (and staff) with the, most famous historical rooms for music (historical information; caustic principles; DVDs of performances; etc.) If we develop the list of most important and still existing historical rooms and spaces, we can get important databases.

And the last topic is about the fact that students should be taught “applied acoustics” alongside historical and organological subjects.



## Session 4: Nuancing historically–informed performance

*“Distant Choirs: Reflections on the placement of musical forces in sacred music”*

Case Studies Presentation by

**Bruce Dickey**, Schola Cantorum Basiliensis

Moderator: **Greta Haenen**, Musikhoschule Trossingen



### Bruce Dickey

*“Distant Choirs: Reflections on the placement of musical forces in Sacred music”*

*“This talk will address the issue of the placement of musicians in 16th and 17th century Italian sacred music. The talk will begin with a series of observations made during 40 years of performances of Monteverdi’s 1610 Vespers. Because the work is so universally performed, it serves in many ways as a kind of benchmark on the state of performance practice of 17th century music.*

*I will share some of my observations about performing this work and how modern performances relate to the spaces in which they take place. We will examine how an informed performance might be altered by an awareness of both the historical spaces in which the work would have been performed in the 17th century, and historical information on the disposition of forces in sacred poly choral music.*

*My observations lead me to speculate that the kind of spaces in which this music was performed, but perhaps even more importantly, the way in which the musical forces were disposed in these spaces, would have a crucial impact on the sound and interpretation of the music, at least as significant, if not more so, than the factors with which we in the early music community so diligently preoccupy ourselves: instruments, articulation, bowing, ornamentation, tuning, temperament, etc. In addition, it is my thesis that the insights gained from a study of the relationship of the music to its historical spaces can be applied to performances of this work and similar ones in all kinds of venues.”*



I would like to speak to you today out of my experience of performing sacred music (largely Italian) for almost 40 years. These performances have taken place in every sort of venue imaginable from the tiniest auditorium to the Concertgebouw in Amsterdam, from provincial churches in Sweden to St. Mark's in Venice. A significant percentage of these performances have been of Monteverdi's 1610 Vespers, which I would estimate I have performed between 400 and 500

times. Because the work is so universally performed, it serves in many ways as a kind of benchmark on the state of performance practice in the 20<sup>th</sup> and 21<sup>st</sup> centuries.

I would therefore like to share with you some of my observations about performing this work, how the performances relate to the spaces in which they take place, and how the work relates both to the historical spaces in which it might have been performed in the 17<sup>th</sup> century, and to some historical descriptions about the disposition of forces in sacred polychoral music.

My observations led me to speculate that the kind of spaces in which this music was performed, but perhaps even more importantly, the way in which the musical forces were disposed in these spaces, would have had a crucial impact on the sound and interpretation of the music, at least as significant, if not more so, than all of the factors with which we in the early music community so diligently preoccupy ourselves: instruments, articulation, bowing, ornamentation, tuning and temperament. In addition, it is my thesis that the insights gained from a study of the relationship of the music to its historical spaces can be applied to performances in all kinds of venues.

Observations made during these performances:

1. In most cases the forces are arranged in a way which resembles the orchestral configuration typical of an 18<sup>th</sup> or 19<sup>th</sup> century oratorio – i.e., with an orchestra arranged roughly in a semicircle in front of choir and soloists.
2. There is no place in the church where these forces could be accommodated.
3. The church organ (if present) is not being used.
4. The protagonist of the music is the choir. Soloists intervene occasionally.

What do we know about the spaces for music in Italian 16<sup>th</sup> and 17<sup>th</sup> century churches (first in generally and then regarding two important historical churches).

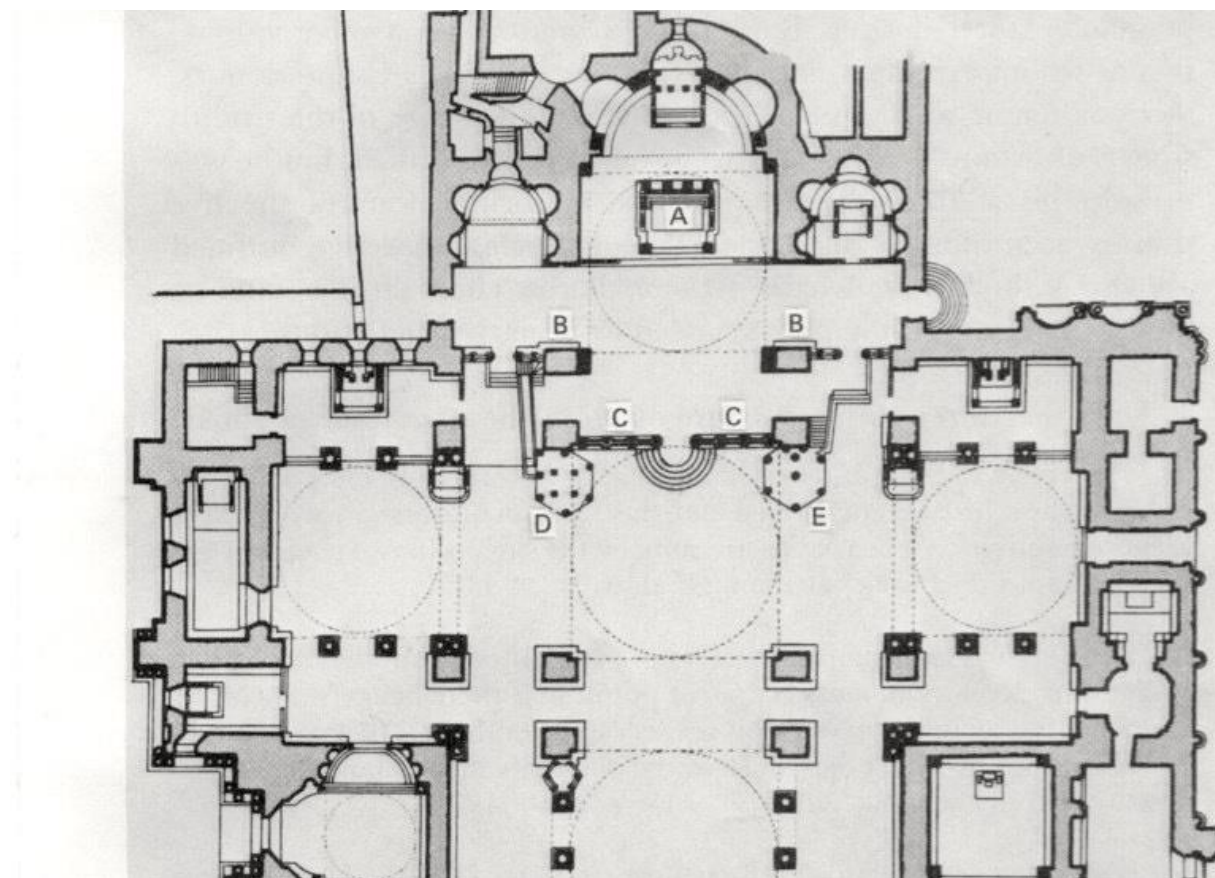
1. The church organ (or organs) was always the principal protagonist of the music.
2. Some of the musicians were always placed on it (as evidenced by the Italian expression, “suonare, cantare nell’organo”) This is confirmed by Monteverdi’s rubric on the Laudate pueri of the 1610 Vespers: 8 voci nell’organo.
3. The organ was placed in a loft (cantoria) high above the floor.
4. Often additional lofts existed, usually in opposition.
5. The lofts are limited in size and quite narrow (4-8 musicians)
6. Some churches had additional spaces, pulpits, niches, balconies, etc.
7. All of these spaces were relatively near to each other.
8. On major feast days it was common to construct additional platforms or *palchi*.
9. Often sight lines are limited. No place for a conductor visible to all of the musicians and singers.

Case studies: **Santa Barbara in Mantova** and **San Marco in Venice**.

While no actual performance of the 1610 Vespers can be traced to either of these churches, they were churches with which Monteverdi was closely tied. They are in many ways typical used for the performance of polychoral music.

## San Marco

It is important to look at San Marco because there have been many performances of Monteverdi's Vespers there in the past couple of decades including a couple in which I was involved. None of them, as far as I know, have used the church in the way it would have been used in the Monteverdi's time.



Principal places for musicians in San Marco for large-scale concerted music:

1. Organ lofts (B and B)
2. The hexagonal pulpit known as the pergolo or "bigonzo" (E)
3. Multistory pulpit (D)
4. Niches to the left and right of C and C
5. Palchi constructed for special feasts



### Observations:

1. All the spaces are close together in relation to the church as a whole.
2. No directionality can be discerned from the nave.
3. The ripieno singers (cappella) normally stood in the bigonzo. Only 12 would fit.
4. A description from 1607 makes clear that there were two conductors in the choir lofts who relayed the beat from Giovanni Croce, maestro di cappella. Croce could have been located in the pergolo, in the two-story pulpit, or on the floor of the choir.

“April 2<sup>nd</sup> (1607): Giovanni Croce, maestro di cappella... having communicated to the Most Illustrious Procurators that, it being necessary to perform music in the organs at such times as the Most Serene Prince and the Most Serene Signoria come to church, it is also necessary that there be someone of ability who serves in the organs to beat the time, as it is regulated by this maestro. And because, in Gio. Gabrieli's loft, there is... Giovanni Bassano, capo dei concerti, who on that side is charged with this responsibility, and on the other side this maestro [Croce] is accustomed to employ ... Fra Agostin, the minorite, singer in the choir ...”

5. Croce would not have been visible to both of them and certainly not to the musicians in the galleries.
6. All musicians not in the pergola would have been soloists, or instrumentalists. The singers in the pergola were ripieno singers.
7. Therefore, the musical protagonists in a work like the Vespers were soloists. The ripieno singers would have joined them in the tutti.

### Santa Barbara

The principal spaces used to accommodate musicians in the Basilica of Santa Barbara in Mantova are shown in the photos.

1. Organ loft. Room for 8 possibly.
2. Loft opposite the organ. Room for 8-12 plus extra continuo
3. Galleries with grates. Possibly for soloists, instruments.
4. Large loft at back of church. Unlikely to have been used in music involving the organ lofts. Perhaps polyphony, chant, etc.

Historical Sources on the Disposition of Musical Forces.

## Giacobbi

Prima parte dei salmi concertati a due, e più chori...comodi da concertare in diverse maniere...  
Venezia, Gardano, 1609

Gieronimo Giacobbi, Maestro di cappella at San Petronio, published in 1609 a collection of concerted Psalms "for two and more choirs" which is fascinating both for the intrinsic qualities of the music as well as for its unusually informative preface. Giacobbi was particularly interested in the different ways in which singers and instruments could be combined in the performance of large-scale church music, at a time when instrumentation was not often indicated with precision in printed music. Michael Praetorius, who was also obsessed with this topic, but in a much more Germanically systematic way, apparently also found Giacobbi's comments on the performance of polychoral music interesting, since he frequently cites Giacobbi as one of his principal sources on such practices.

While Giacobbi's preface contains many instructions which are specific to the pieces in this collection, many of his comments have a more general significance, particularly regarding the interchangeability of voices and instruments and the physical placement of choirs.

Most of the Psalms are 9-part with the singers arranged in two choirs.

Choir 1: SSATB

Choir II: A, 3Trb

(Choir III): AATB

Giacobbi comments:

"It must also be said that in the principal churches, where singers and players abound, the judicious Maestro di cappella may expand these Psalms as he likes by adding other choirs, both high and low--taking into consideration the qualities of the venue and the quantity of singers and instrumentalists available--and having the ripieni transcribed, the beginnings and endings of which are indicated in all the parts by the symbol resembling an R. These ripieni will be that much more effective if they are placed at a suitable distance from the two principal choirs."

Minimum forces: 5 singers and organ

Medium forces: 5 singers, singer with 3 trombones organ

Large forces: I: SSATB II: A, 3 Trb III: AATB IV: SSATB V: SSATB Instruments in Tutti

## Ignazio Donati

Salmi boscarecci concertati a sei voci, con aggiunta, se piace, di altre sei voci... Venezia, Vincenti, Alessandro, 1623

Ignazio Donati published in 1623, a collection of Psalms in 12 partbooks.

The pieces are cleverly constructed so that they can be performed by a range of musicians from just 6 solo singers with organ, up to a variety of choirs placed in different places around the church. This chart shows some of the possible configurations:

### *Donati Salmi Boscarecci*

#### Basic 3 choir configuration

Canto	C1	Soprano	1
Sesto	C1	Soprano	
Alto	C3	Alto	
Tenore	C4	Tenor	
Quinto	C4	Tenor	
Basso	F4	Bass	
Canto & Violino	C1	Violin	2
Sesto & Violino	C1	Violin	
Alto & Violino	C3	Violin	
T Voce & Trb	C4	Vla g	
5 Voce & Trb	C4	Vla g	
B Voce & Trb	F4	Vla g	
Bc	F4	organ	

#### Hypothetical expanded 6 choir configuration

Canto	C1	Soprano	1						
Sesto	C1	Soprano							
Alto	C3	Alto							
Basso	F4	Bass							
Quinto	C4	Tenor	2						
Canto & Violino	C1	Violin		Soprano	4	Cornetto	5	Tenor	6
Sesto & Violino	C1	Violin		Soprano		Cornetto		Tenor	
Alto & Violino	C3	Violin		Alto		Cornetto		Alto	
Tenore	C4	Tenor	3						
T Voce & Trb	C4	Vla g		Tenor		Soprano		Trb	
5 Voce & Trb	C4	Vla g		Tenor		Soprano		Trb	
B Voce & Trb	F4	Vla g		Bass		Bass		Trb	
Bc	F4	organ							

Note that the addition of forces creates new choirs at a distance, and not an accumulation of voices and/or instruments in one place. New dimensions are created with each addition.

#### Conclusions (How does disposition affect performance)

1. Determining size of forces (size of individual choirs and number of them)
2. Defining relationship of the musicians to a leader (conductor, director, rimettitore), who becomes a coordinator rather than an interpreter.
3. This change of role for the leader, also changes the way the musicians relate to each other, causing them to become much more proactive in the interpretation.
4. Playing on (in) the organ fundamentally changes the balance of organ to singers and players.
5. Having ripieni (instr. and voces) at a distance and crosswise adds significant dimensions to the music (without creating tennis-match antifonality)



## Session 5: Historical aspects and acoustical properties of the Auditorium at Villa Contarini

Marco Di Pasquale and Davide Bonsi

Conservatorio "A. Pedrollo", Vicenza

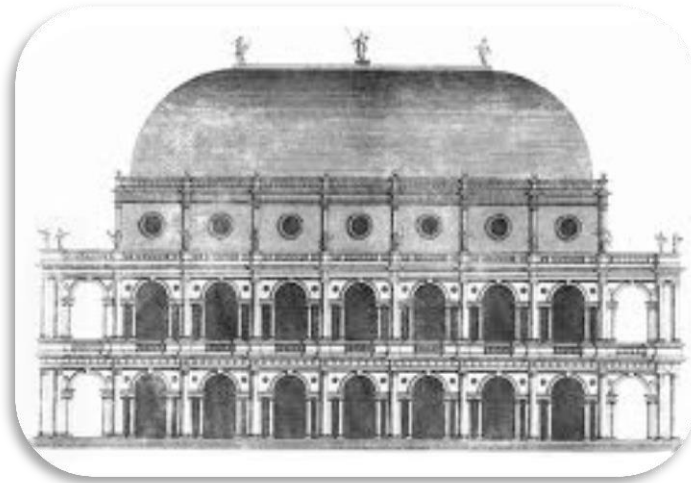


*"Contarini, a prominent member of the Venetian aristocracy. A passionate lover of music, he established an ensemble of young female musicians who performed for the most illustrious visitors of the Republic of Venice. An auditorium, located in the central body of the villa, is connected by means of a large hole in its ceiling to the "Sala della chitarra rovesciata" (the room of the reversed guitar), so called because of its shape. The room is equipped with devices apparently conceived to facilitate the reflection of the sound towards the auditorium. It is likely that this room was intended to accommodate the musicians during their performances, while the guests took their place in the auditorium. Similar arrangements were adopted in the Venetian "ospedali", probably with the main purpose of preventing direct contact between the young female musicians, who were mostly orphans of humble social origin, and their noble listeners.*

*It is to be noted that such placements of the performers reflect listening habits which had little in common with those that reached their apex with the rise of the bourgeois concert in the second half of the nineteenth century. Through an extensive acoustic measurement campaign, which was undertaken in 2011 in the above-mentioned halls, it has been possible to obtain a complete set of responses and indices for a quantitative characterization of the interior sound field. Results point out a moderately high reverberation and listening level coupled to an acceptable clarity in both volumes when taken separately. If used in a coupled way (i.e., putting the sound source at the top level and leaving the receiver at the ground floor) sound appears much softer, diffused, with little directional cues and an increased perception of initial reverberance: properties from which it is tempting to infer that the linked use of the two spaces could have been devised with the aim of giving the music a "background" or a gently "immersive" feature."*

# Marco Di Pasquale

## *Villa Contarini*



"We are in the central body of Villa Contarini. It is the core of the estate owned by the homonymous patrician family from the very beginning of the fourteenth century to its extinction, following the death of the last male descendant in 1836. The Contarinis belonged to the community credited to have founded Venice. Indeed, they were one of the twelve families that elected the first doge in 697. In the following centuries, the Contarinis accumulated an extraordinary wealth and gave Venice eight doges and many other eminent citizens. As is well known, the doge was the highest official of the republic and symbol of the sovereignty of the Venetian state.

The main building of Villa Contarini was erected on the foundation of a late-medieval castle around 1546, perhaps on a design by Andrea Palladio. In the second half of the seventeenth century, likely between 1676 and 1684, the entire architectural structure of the villa was substantially rehashed to improve the aura of luxury. As a consequence, the auditorium acquired its current appearance.

The supporter of those changes was Marco Contarini. Born in 1632, he was precociously involved in the political life of the Venetian republic. In 1662, at the age of forty, he was appointed *procuratore di San Marco* in recognition of the faithful and honorable services rendered to his country. It is worth noting that *procuratore di San Marco* was the highest rank among Venetian officials apart from the doge.



Marco Contarini was a passionate lover of music or, at least, he availed himself of music in a manner perfectly suited to a prominent member of the aristocracy. He equipped his country residence with two theatres that unfortunately are no longer extant: the largest had the capacity of a thousand people, the other of four hundred. The villa was also furnished with a profusion of musical instruments by the best Italian makers. In the late nineteenth century, the largest part of them was sold to the museums of Bruxelles and Paris,

while the remaining part was donated to the Museo Correr in Venice. Marco Contarini's huge collection of opera and cantata manuscript scores and a quantity of printed librettos, some of which were produced for use in Piazzola, is now cased in the Biblioteca Nazionale Marciana in Venice.

In Piazzola, Contarini hosted a number of orphan girls for whom he reserved a building, with its theatre (the lesser of the two) and a church. It was called *il loco delle vergini* (the place of the virgins). In the words of a contemporary French witness, it was «un lieu en forme de monastère» (Chassebras, 1681). Probably Marco's initiative was prompted by the strongly felt tradition of Venetian *ospitali*. Such institutions, already well consolidated in the early sixteenth century, were devoted to the protection and instruction of orphans in view of their integration, at the age of majority, into working life or marriage. Since their establishment, the *ospitali* musical vocation was strong, but up to now this aspect has been studied mostly as far as the late seventeenth and eighteenth centuries are concerned. As in Venetian orphanage, the girls admitted to the *loco delle vergini* were initiated to various craft activities, such as the preparation of herbal products, the art of engraving, the industry of book printing and binding, the manufacture of tapestries, embroideries and laces, and, last but not least, music making.

Contarini was patron to a musical ensemble of thirty-three young female orphans who, with the assistance of their teachers, practiced singing and instrument playing. The group performed in the operas written for, and staged in, both theatres. It was also engaged in encomiastic and moral cantatas, and instrumental pieces offered to the illustrious personalities that frequently visited the villa. The opuses expressly commissioned to be performed here were provided by reputed composers, such as Domenico Freschi, *maestro di cappella* at Vicenza cathedral, and Carlo Pallavicino, who was *musicae praefectus* of the elector of Saxony in Dresden and *maestro di coro* of the Ospedale degli Incurabili in Venice.

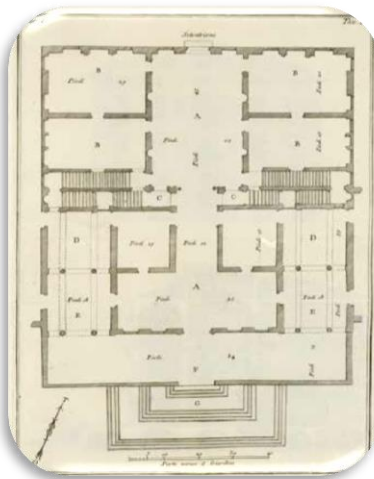


The following slides display the list of Freschi's compositions for Villa Contarini and some examples of the frontispieces and title-pages of librettos produced in the printing workshop operated by the orphans in Piazzola.

### Librettos printed in Piazzola *Nel loco delle vergini*

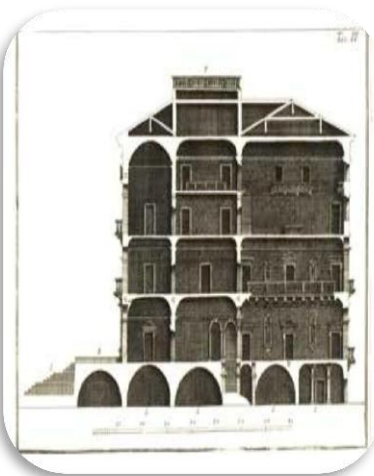
The musical performances took place in the above-mentioned theatres, in the gardens of the villa, on the boats that navigated the canal connecting the estate to the Brenta River and from there to Venice, and, of course, in this complex of rooms which was obviously conceived having

in mind special musical purposes.



### Plan of the main building

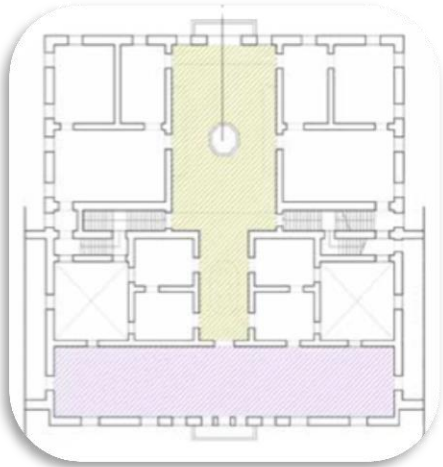
The plan of the main building of the villa clearly shows that its renaissance framework prevented the horizontal extension of the *sala delle audizioni*, so as to achieve dimensions proportioned to the ambition that drove Contarini to the general reorganization of his country property. This restriction probably suggested the vertical expansion of the space. The ceiling of the hall was demolished, doubling the height; a third floor was probably added to the structure, and the overlying room was connected to the lower one by means of the octagonal hole.



### Section of the main building

The room at the third floor is traditionally named *sala della musica* (the music room) or *sala della chitarra rovesciata* (the room of the reversed guitar). Its destination evidently was to accommodate the musicians. Even if the seventeenth-century documentation is quite scant, this hypothesis is strengthened by the particular arrangement and the fact that a contiguous room is known as the *sala degli strumenti musicali* (the room of musical instruments). This evidence suggests a well-organized place for music making during the receptions that Marco Contarini regularly offered to his noble guests.





### Plan of the third floor

The designer of the music room is unknown. However, it clearly appears that his aim was to confer a particular acoustical behaviour to the complex of rooms, perhaps in similarity to what is obtained by attaching a string, intended as sound generator, and a resonating chamber.

The ceiling is very thin and light, and hung on a wooden structure. It was probably supposed to enhance the acoustical response of the venue.



### The wooden structure sustaining the ceiling of the music room

The music room communicates either with the auditorium and the garret or attic, i.e. the space between the ceiling and the roof. The communication is achieved by means of four long, narrow openings in the ceiling. Each end of the two outside openings, limited to the main portion of the room, assumes the form of an ellipse closed by a removable wooden lid. The function of these devices is still

unclear.



### Ceiling of the music room

Even the roof was probably conceived in order to respond to an acoustical purpose. I do not want to dwell on further details: it suffices to note that the form and volume of the garret were designed according to well-defined proportions likely dictated by seventeenth-century acoustical notions. Above the largest part of the *sala della musica*, the roof is simply slanted; above the narrowest portion, instead, one finds a barrel vault.





### Details of the roof

As I have already said, the documentation about contemporary life in Villa Contarini is very poor. The most interesting surviving evidence refers to the visit that Ernest Augustus and his retinue paid to the Republic of Venice in 1685. Ernest Augustus was a member of the House of Hannover, the duke of Brunswick-Lüneburg and the administrator of the Prince-Bishopric of Osnabrück.

On that occasion, the Venetian government asked Marco Contarini to do the honours on behalf of the city. During these few days, he offered to his guests a full program of entertainments mostly comprising, when not centred on, musical performances. The events were reported in a pamphlet printed in Piazzola and titled *L'orologio del piacere* (the clock of pleasure). The book contains a brief description of the festivities, the poetic texts put to music and some engravings displaying the most memorable moments.

Among them, there is the one you are now seeing, whose setting is the *sala della musica*.



### *L'orologio del piacere*

The picture may not be entirely realistic. One sees a group seated while dining, a standing group seemingly intent on celebrating the guests, the musicians on the galleries and a stage prop hanging from the ceiling. What one does not see is the famous hole in the middle of the floor. This is perhaps simply due to the fact that its surrounding railing would have disturbed the depiction of the people behind it. Another possible explanation is that the railing was hidden under the dining table. Anyway, we should not be too naive when faced with

iconographical evidences of this kind.

In other circumstances, the guests would have presumably been accommodated into the auditorium, while the musicians remained upstairs. In this case, music arrived quite unexpectedly, surprising the unsuspecting visitors. Coming from above, however, music would have assumed a rather different sound. As the acoustical characterization proposed by Davide Bonsi shows, if the two rooms are used in a coupled way, sound appears much softer, less clear,

with an increased perception of initial reverberance, although with more directional cues: properties from which it is tempting to infer that the linked use of the two spaces could have been devised with the aim of giving music a more gentle feature.

Certainly, Contarini's guests behaved very differently from the way we presently attend at a concert. Their main concern and the reason itself for their being there was to socialize. While listening to music, they supposedly continued to talk to each other and to entertain themselves in many different ways. Generally speaking, the attention they paid to music was discontinuous and maybe even superficial. More often than not, for the meetings of the aristocracy, music represented an elegant complement intended to impart the desired decorum, but rarely was the true focus. It is to be noted that the acoustical properties of the auditorium comply with this custom.

A further observation relates to the prerogative of the nobles of not mingling with lower classes, unless this was strictly necessary. It was therefore advisable to keep singers and instrumentalists in a somewhat separate place. This conduct was even mandatory when the subalterns were young girls of very humble origins whose reputation was to be carefully defended, as in the case of Contarini's so-called virgins.

The very same precept of preserving the honour of the orphan girls was strictly observed in Venetian orphanages, as the music room of the Ospedale dei Derelitti, which still retains its eighteenth-century structure, makes clear.



### **The *stanza della musica* at the Derelitti**

The *stanza della musica* was reserved for the wealthy visitors admitted to enjoy a private musical audition. The orphan girls engaged in music making, instead, took their place in a contiguous room which communicate with the main one through windows fitted with grilles. Jacopo Guarana, the painter who decorated the room with frescoes, must have been well acquainted with this custom."

# Davide Bonsi

## *Acoustical characterization of the double-hall*

*“Auditorium - Sala della Chitarra” of Villa Contarini – Camerini*

### The measurement technique (1)



- Measurement of binaural impulse responses at some relevant positions.
- Use of an electroacoustical equipment based on an omnidirectional loudspeaker (dodecahedron) and a binaural dummy head.



“The presentation illustrates the results of an acoustical measurement campaign executed in the halls of the main body of Villa Contarini - Camerini in January 2011.

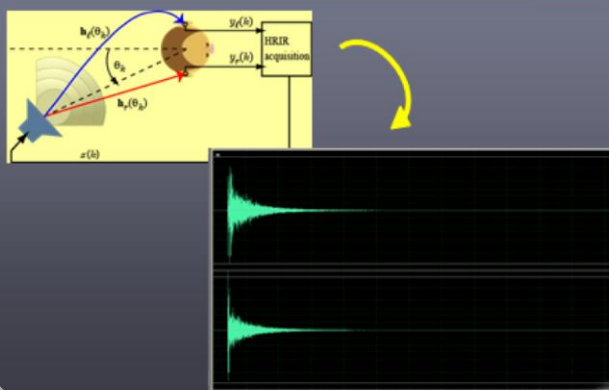
### The measurement technique

The measurement equipment consisted of a loudspeaker characterized by an isotropic (i.e., omnidirectional) emission, generally known as dodecahedron, a laptop computer, and a binaural microphone. The last element is a sort

of anthropometric sound receiver (dummy head) having a pair of microphones mounted in the same position as human ear drums.

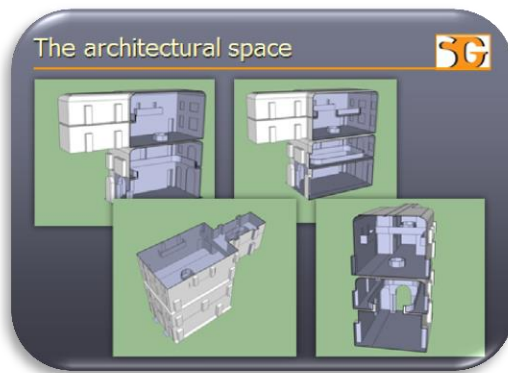
The obtained signal is called “impulse response” and, in the present case, it consists of a pair of signals corresponding to the two ears of a listener positioned in the same place as the dummy head.

### The measurement technique (2)



The impulse response contains all the acoustical information related to amplitude and arrival times of sound waves emitted by the source and detected by the receiver. When measured binaurally, as in the present case, one may obtain more information about the degree of correlation between the left and right signals, a parameter strongly related to the spatial impression.

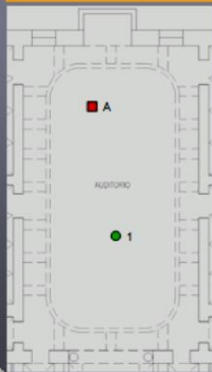
## The acoustical indices



Measurements were done in several source-receiver configurations. We here present the four most significant ones, with the purpose of both illustrating quantitatively the listening conditions in the two main spaces when used separately, and in a “mixed mode”, that is by placing the source and the receiver in different spaces, so testing the effect produced by the small octagonal opening existing in the floor. For each configuration the broadband data (60-8000 Hz) for the main acoustic indices are shown. Remember that

G stands for Strength; C for Clarity; D for Definition; EDT for Early Decay Time; T15 T20 and T30 for Reverberation time; IACC for Interaural Cross Correlation Coefficient.

### Results



- Source and receiver in the auditorium both at the ground level

G	[dB]	10.5
C80	[dB]	3
D50	[%]	54
ts	[ms]	81
EDT	[s]	1.5
T15	[s]	1.6
T20	[s]	1.8
T30	[s]	2.0
IACC (Early)		0.25

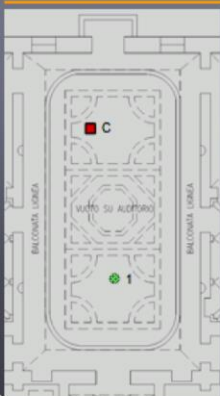
### Results



- Source in the gallery (first level) and receiver at the ground level

G	[dB]	10.0
C80	[dB]	0.3
D50	[%]	38
ts	[ms]	119
EDT	[s]	1.7
T15	[s]	1.8
T20	[s]	1.9
T30	[s]	2.1
IACC (Early)		0.25

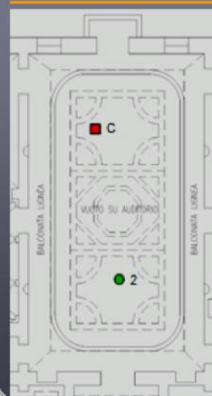
### Results



- Source at the second floor (*Sala della Chitarra*) and receiver at the ground level

G	[dB]	-3.6
C80	[dB]	-6.4
D50	[%]	10.8
ts	[ms]	237
EDT	[s]	2.7
T15	[s]	2.6
T20	[s]	2.6
T30	[s]	2.7
IACC (Early)		0.58

### Results



- Source and receiver at the second floor (*Sala della Chitarra*)

G	[dB]	12.1
C80	[dB]	1.1
D50	[%]	42
ts	[ms]	110
EDT	[s]	1.7
T15	[s]	2
T20	[s]	2
T30	[s]	2.1
IACC (Early)		0.21



## Remarks

In both rooms reverberation time is around 2 seconds, a value typical of concert halls of much larger size. In the present case, the result is mostly due to the absence of audience, chairs and other absorbers. The overall sound pressure level (i.e., the Strength) turns out to be high too due to the relative small distance between the source and the receiver, a condition which makes the sound perception influenced by a strong direct sound in addition to the reverberation tail.

In the bottom auditorium a varying different decay slope is observed, being the reverberation times dependent upon the interval which they are calculated on (Early Decay Time < T15 < T20 < T30). The effect may be due to a poor sound distribution arising from the presence of nearby sub-spaces and related coupling effects (as volume on top of gallery or entrance hall of the villa).

Despite the smaller volume, the “Sala della Chitarra” turns out to be a little more reverberant at mid and high frequencies.

With the data at our disposal nothing particular can be said about the effect of the wooden hollow ceiling on the sound field: it is reasonable to assume that this structure can lead to an additional absorption at low frequencies due to resonant effects (nonetheless an accurate experimental check of the phenomenon would have required a sound source more powerful at low frequencies).

Perhaps, from the acoustical, historical and musical viewpoint, one of the most engaging issue is the explanation of the small octagonal hole connecting the auditorium with the upper “Sala della Chitarra”. The simplest thing to analyze is the behavior of acoustical indices when the source and the receiver are not positioned in the same space. What is observed when such a condition is met (i.e., putting the source upstairs and the receiver downstairs) is a pronounced decrease of loudness level and clarity (due to the screening effect of the floor) combined with an enhancement of reverberance. In addition to that, the “stereophonic” index IACC (interaural cross-correlation) exhibits an increase as well (from around 0.2 to 0.6), meaning that sound spaciousness is presumably more focused or “polarized” from a narrow region (sort of “acoustical shower”, or vertical beam). We may argue that, unlike the coplanar configuration, sound propagation is less blended by early reflections from close lateral walls.”



# Closing Session

*Summing up of themes by Jeremy Cox  
News from the AEC*



## Jeremy Cox

*Report from the breakout sessions*

Reporting back from the breakout session, Jeremy presents the keywords. 5 groups had the discussions on the following topics:

**Developing early music students' sensitivity to place:**

- *Where should this be located in the curriculum?*
- *How it is best taught?*
- *Is it something that might be reinforced:*
  - *Through student exchange activities*
  - *Through Intensive Projects*
  - *Through Joint Programs between carefully selected partners?*

## Group A:

- We should and could introducing or perhaps maintain inter-institutional joint projects. The old intensive programs are not something for which we can get separate funding anymore. You can have intensive programs within strategic partnership and in the meeting of the IRCs we have talked a lot about how to adapt this new situation. So it may be that from today you want to start thinking about how strategic partnerships could be constructed and this program is ERASMUS Plus.
- Next suggestion from Group A is an offer of a module in "Applied Acoustics"
- We also have talked a lot about difficulties and practicalities of being able to perform in a historical place, where you are teaching your students repertoire in relation to specific locations, make sure that they are likely aware of the spaces, rooms, the buildings, where the repertoire would be associated.  
I am sure many of our teachers are constantly communicating about this with their students, being physically in these places.

## Group B:

Anthony Rooley gave us a wonderful image of the "Five W's", questions, which should ask students starting working on the Early Music pieces:

**Who** are you (in this place?)

**Where** are you

**When** are you

**What** mood or passion

**Why** are you doing this?

- Next discussion was about the fact that, we teach, but do we do so in a way that makes our students fully aware?
- It is often difficult to make public performances in historic spaces. Not enough just to visit like tourists. Private laboratory sessions for students would be helpful. Perhaps it is possible to have an access for students in those places. It is not always enough to come as a tourist, but take results of a real experience with you.

### **Group C:**

- They spoke about the opposing between conservation (of buildings as well as instruments and the necessity to use them for a realistic experience) Is it good to use those old instruments, or shall we keep them safe. Same question is about the old buildings where you see extra movements inside the building. Using itself is damaging the instruments and buildings.
- Artificial reconstruction can work if blending with real experience.
- Otherwise, there is a risk of standardization to limitations of technology, but perhaps you can gain some experience by selecting access to the real spaces. So blending the technology could be useful.
- Teachers are “walking databases” of information of knowledge on the topic of adaptation to diverse performance situation.

### **Group D:**

- Not just acoustics, but sensibility to sound in relation to space, which is more as an musical emotional space as well, and how do we develop that sensibility of sound in relation with space.
- Joint Programs may be often a way to do this; there was a lot of support in principal and in actual financial terms within the European Union, - joint programs, designed and delivered jointly, and which incorporates some kind of European movements and mobility. And if you imagine, that you can spend one semester in Germany, one in Italy, and one in France, with the focus in each case on the repertoire, it could be a sort of a Master’s program.
- Instruments also matter. Modern copies are often louder to reflect modern performance spaces. The linkage between the instrument and the spaces is still very important.

### **Group E:**

- Use of ERASMUS exchanges could be a useful way of targeting to enable students (and staff) mobility to places and location where historical halls/churches/rooms are available.
- Use latest technological media can be used to familiarise students (and staff) with the, most famous historical rooms for music (historical information; caustic principles; DVDs of performances; etc.) If we develop the list of most important and still existing historical rooms and spaces, we can get important databases.
- And the last topic is about the fact that students should be taught “applied acoustics” alongside historical and organological subjects.

## *News from the AEC*

Jeremy Cox presents the aim and structure of the third edition of the Erasmus Network for Music 'Polifonia'.

Jeremy announced the upcoming AEC Events: International Music Institution Leaders Forum (IMILF 2014) in Keimung University, Daegu, Korea; Annual Meeting for international Relations Coordinators 2014 at the Royal Academy of Music Aalborg, Denmark; AEC Annual Congress and General Assembly 2014 at the Franz Liszt Academy of Music Budapest, Hungary; Pop and Jazz Platform 2015 in Berklee College of Music in Valencia, Spain; and 13-14 February 2015 EPARM 2015 at the university of Performing Arts (KUG) Graz, Austria.

**After the closing remarks, Jeremy Cox announces closed the EMP 2014 conference.**



## Participants' Questionnaire Results

Number of Participants: **60**

Number of Respondents: **26**

Response percentage: **43.3%**

Number of countries represented: **17**

Average overall grade given to the AEC EMP meeting: **8.77**

The following table shows the results of the past three years:

*Table 1: Results EMP Meetings 2011-2014*

Meeting	Average grade (1-10)
Geneva 2011	7.8
Bremen 2012	8.2
Utrecht 2013	7.93
Vicenza 2014	8.77

*Table 2: Would people like to attend future EMP, based on this experience?*

	Yes	No	Maybe
Based on the experience with this meeting, would you like to attend future EMP?	21	1	4
Percentage	8.76%	3.84%	15.38%

Table 2 shows that the EMP Conference 2014 in Vicenza was a positive experience for almost all respondents.



## 1. Motivation

How important were the following reasons for coming to this meeting? (1=not important at all, 5=very important)	1	2	3	4	5	n	Average result
Topics addressed by the meeting	0%	0%	20%	40%	40%	25	4.20
Possibility to discuss in groups	4%	4%	4%	46%	42%	26	4.19
Exchange of good practices	4%	0%	8%	44%	44%	25	4.24
Networking opportunity	0%	8%	4%	23%	65%	26	4.46
Venue, place of meeting	0%	4%	12%	27%	58%	26	4.38
<b>Average</b>	<b>2%</b>	<b>3%</b>	<b>9%</b>	<b>36%</b>	<b>50%</b>	<b>25.6</b>	<b>4.30</b>

Table 3: Motivations for coming to the EMP meeting

## 2. Relevance of the meeting and content of the Sessions

The results on the *table 4* show that the participants were very satisfied with the presentations by Dorothea Baumann and Anthony Rooley.

Evaluation of the sessions (1 = poor, 5 = very good)	1	2	3	4	5	n	Average result
How relevant was the meeting for you?	0%	0%	15%	38%	46%	26	4.31
Did the programme content meet your expectations?	0%	0%	12%	42%	46%	26	4.35
Opening event	5%	19%	29%	43%	5%	21	3.24
Keynote presentation by Anthony Rooley	0%	0%	0%	19%	81%	21	4.81
Presentation by Dorothea Baumann	0%	0%	0%	4%	96%	24	4.96
Presentation by Giulia Nuti	0%	4%	26%	39%	30%	23	3.96
Presentation by Bruce Dickey	0%	0%	8%	38%	54%	24	4.46
Discussion in Breakout groups	4%	0%	17%	35%	43%	23	4.13
Presentation by Marco Di Pasquale	0%	17%	29%	42%	13%	24	3.50
Concerts and activities	0%	4%	17%	35%	43%	23	4.17
<b>Average</b>	<b>1%</b>	<b>4%</b>	<b>15%</b>	<b>33%</b>	<b>46%</b>	<b>23.5</b>	<b>4.31</b>

### 3. Organisation

Table 5: Evaluation of the Organisation

Evaluation of the organization (1 = poor, 5 = very good)	1	2	3	4	5	n	Average result
Information provided before the meeting	0%	0%	12%	27%	62%	26	4.50
Registration procedure	0%	4%	8%	8%	81%	26	4.65
Helpfulness of the conference staff	0%	0%	4%	23%	73%	26	4.69
Facilities, meeting rooms	0%	0%	0%	15%	85%	26	4.85
Catering	0%	0%	8%	12%	80%	25	4.72
Accommodation/Hotel	0%	10%	14%	29%	48%	21	4.13
Over all organisation	0%	0%	0%	25%	75%	24	4.75
Average	0%	1%	5%	24%	69%	24.71	4.61

### 4. Expectations

Table 6: Have your expectations been met in terms of:

(1 = poor, 5 = very good)	1	2	3	4	5	n	Average result
Topics addressed	0%	0%	8%	40%	52%	26	3.85
Discussions and debates	0%	4%	0%	65%	31%	26	4.23
Exchange of good practices	0%	4%	8%	48%	40%	25	4.24
Networking opportunity	0%	0%	19%	31%	50%	26	4.31
Venue, place of meeting	0%	0%	4%	27%	69%	26	4.65
Average	0%	2%	8%	42%	48%	25.60	4.37

## 5. Comments

### On “How important were the following reasons for coming to this meeting?”

- More topics towards specific participants/students/musicians would be better...
- A weekend is always short. Besides the lectures – everything was perfect. I would like to have more time to exchange ideas in small groups.
- Super!

### On “Relevance of the meeting”

- Opened new doors
- Two full days would allow a few more sessions. It was fantastic but too short
- Some lecturers were not talking understandable (Di Pasquale)

### On “The Sessions”

- Unfortunately, I was not able to attend the other presentations, but I very much enjoyed the breakout group discussion. (I would be curious to know how my presentation was rated though!)
- Excellent standard of student performances
- Wonderful sessions, thank you!
- Villa Contarini was beautiful, but for the sessions, the conservatoire would have been more suited.
- Bad acoustics in Villa Contarini. Marco Di Pasquale was reading from paper and not speaking by heart, it was difficult to follow, especially without microphone. Concerts were OK. Buildings great!

### On “Organisation”

- Excellent!
- Fantastic!
- The Auditorium of the Villa Contarini is a beautiful space, but designed for inhabitants in summer and not for sitting here when there is pretty much still winter

### On “Expectations”

- Network opportunities

### Do you plan to follow up this meeting within your institution?

Yes: **20**

No: **0**

Maybe: **5**

**If so, how?**

- I reported on the conference at the department meeting
- Will inform
- Will report. I am planning to invite Dorothea Baumann in Graz to make a presentation.
- It was really amazing and exciting. I have learned a lot of people and new ideas/points of view
- Talking with the interested departments about the topics and the conclusion of the EMP 2014
- Will make a presentation

**Have you read the last year's report?**

Yes: **8**

No: **18**

**Do you consider the last year's report...**

Appropriate: **11**

Too long: **0**

Too short: **0**

**If you didn't read it, which other formats might make you more likely to do so?**

- Personal matters prohibited me from reading the report
- Send it to the e-mail

**Would you like to suggest topics for the next meetings?**

- Feasibility for young people to seriously consider "early music" as a mean of earning for living
- Keep the connection: practical musical topic for getting to all other matters and topics
- I feel that more "practical" items could be considered aside more "general" 'items.
- General information about baroque instrument building. Most of the students play on modernized instruments and they do not really know what a baroque instrument is (in detail). I might explain that if you want to know what I mean and please contact me.
- vocal music instrumental music in 16th century, concert life in 2nd half of 18th century, England's chamber music instrumental possibilities of 17th century
- Vocal Early Music and its importance as a part to the ensemble
- Improvisation - how far could we go in methodology of teaching improvisation
- What is original, especially instruments which would be built or a done a copy of an original instrument



**Would you like to receive information form the AEC through social media in future?**

	Yes	No
Facebook	10	16
Twitter	2	24
Blog	3	23
LinkedIn	2	24
Google +	4	22

**Individual remarks / any other comments (positive or negative)**

- All good wishes for the future!
- Great conference!
- Thank you very much for a wonderful time!
- A reflection about the artistic research in contemporary music system
- Thank you for so many beautiful AEC events and all your so important work. This one will have been probably my last one.
- Thank you for this great EMP!
- Would it be possible to involve students in a dedicated space?
- It would be great if we receive the pdf of the presentation of D. Baumann. Also to get some pictures and of course the report per mail.