



CHARM Newsletter

Annual newsletter

Issue 3 (May 2007)

CHARM (the AHRC Research Centre for the History and Analysis of Recorded Music) came into being on 1 April 2004, and this Newsletter looks back on our third year of activity. A partnership of Royal Holloway, University of London, King's College London, and the University of Sheffield, CHARM is funded through a five-year grant from the AHRC, and its principal activities include a major on-line discographical project, a series of specialist symposia, and a portfolio of recordings-related research projects. For details of CHARM please visit our website at <http://www.charm.rhul.ac.uk>, where you can register with us to be informed of upcoming events – and next year's newsletter!

PURELY COINCIDENTAL? JOYCE HATTO AND CHOPIN'S MAZURKAS

Since 15 February 2007, everyone has heard of Joyce Hatto. That was the day the story was broken by Gramophone magazine, up to then an ardent supporter of Hatto, the septuagenarian pianist who, in the years immediately preceding her death in 2006, had released a tide of recordings of the great pianistic warhorses. Issued on the Concert Artists/Fidelio label, owned by her husband William Barrington-Coupe, these recordings were the very embodiment of wish fulfilment: they told of a pianist who, forced by cancer to retire from the concert platform in the 1970s, had achieved an incredible feat of heroism against the odds in the recording studio. It seemed too good to be true.

As it turned out, it was too good to be true. Gramophone's story was prompted by someone putting the Hatto recording of Liszt's Transcendental Studies into his computer and the iTunes software identifying it as a recording by László Simon. That was only a few weeks before the story broke. But we at CHARM knew something was wrong as early as November 2006, when Craig Sapp was analysing the relationship between different recordings of Chopin's Mazurkas and discovered that Hatto's recording of them was indistinguishable from Eugen Indjic's, released in 1988. We wondered what to do about this; we took advice on the law of defamation, and didn't like what we heard. We were still wondering when Gramophone broke the story. At that point we stopped worrying about legal niceties and went public. The following is extracted from the report we placed on the CHARM website (http://www.charm.rhul.ac.uk/content/contact/hatto_cover.html), and explains how our identification worked, as well as the further steps we took to make sure that the recordings really were the same. Even though we didn't break the story, we gained a lot of publicity, and the CHARM website, which usually averages about 1,500 hits from unique visitors per month, recorded 11,500 in February 2007.

In the CHARM project on Chopin's mazurkas (www.mazurka.org.uk), we make considerable use of different forms of visualisation, including what we call 'timescapes'. As the name implies, these are based on timing information, specifically the duration of each beat in the performance: what they show is where in a particular recording one pianist's rubato is most like another's. A particular advantage of them is that they compare *relative* timings, in other words they show relationships that would otherwise be hidden by the fact that one recording is globally faster or slower than another. (In general it's relative rather than absolute timing that matters most in characterising pianistic style.) A typical example is

Figure 1, which shows Arthur Rubinstein's 1939 recording of the Mazurka Op. 68 No. 3; the different colours indicate which other recording Rubinstein's most resembles at each point. (Each recording is represented by a different colour.) The horizontal axis represents musical time, from the beginning to the end of the piece, while the vertical axis shows how far the similarities persist into its higher-level structure. What Figure 1 is saying is that on the large scale, the first third or so of Rubinstein's 1939 recording is most like his own 1966 recording (represented by the large, orange patch), but thereafter it is closer to the grand average of all the recordings for which we have data (that's the black).

Elsewhere, in particular close to the bottom of the triangle, there are flecks of different colours, which represent more fleeting similarities to a number of other recordings, without any very obvious patterns emerging.

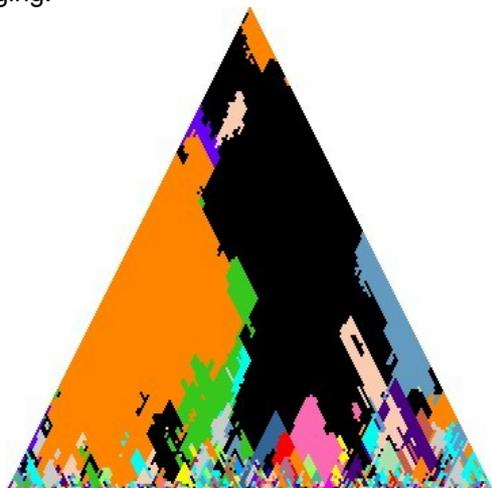


Figure 1

Figure 1 is typical of the way different recordings relate to one another; this is how we expect timescapes to look. Occasionally, however, we find a quite different sort of picture, as in Figure 2. This shows the recording of Op. 68 No. 3 by Jerzy Śmidowicz on the compilation *Fryderyk Chopin, Complete Works: The Golden Age of Polish Pianists* (Muza PNCD 300), and it looks the way it does because of its extreme similarity to the Śmidowicz recording on *The Great Polish Chopin Tradition V: Śmidowicz* (Selene CD-s 9905.50). Actually they are more than similar: they are reissues of the same original recording, first released in 1948 (Muza 1345), and the small markings at the bottom of Figure 2 merely reflect limitations in the accuracy of data capture.

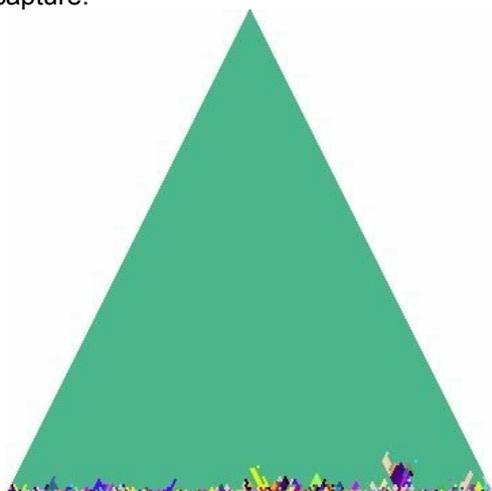


Figure 2

Normally such duplications of the same recording on different releases or reissues occasion no surprise. We were, however, taken aback when we saw the very similar image at Figure 3. This shows the Joyce Hatto recording of Op. 68 No. 3, taken from the Concert Artist/Fidelio box set *Chopin: The Mazurkas*, which was released in 2006 (CACD 20012). According to the booklet accompanying the CDs, the

recordings were made at Concert Artist Studios, Cambridge, on 27 April 1997 and 19 March 2004, though the slipcase changes the latter date to December 2005; the Concert Artists website adds the information that the recording was 'revised by Joyce Hatto shortly before she died' and 'completely remastered'. But all this is puzzling, because what Figure 3 shows is that this recording of Op. 68 No. 3 is virtually indistinguishable from the one on a commercial release by Eugen Indjic; currently available on the Calliope label (*Intégrale des mazurkas: Frédéric Chopin, 3321*), this recording was first issued in 1988 by Claves (*Chopin: 57 Mazurkas, CD 50-8812/13*). Nor is it just Op. 68 No. 3 which exhibits this apparent identity: Figure 4 shows the Mazurka Op. 17 No. 4, and again the Hatto and Indjic recordings are virtually indistinguishable. Actually all the tracks on these discs come out looking the same.

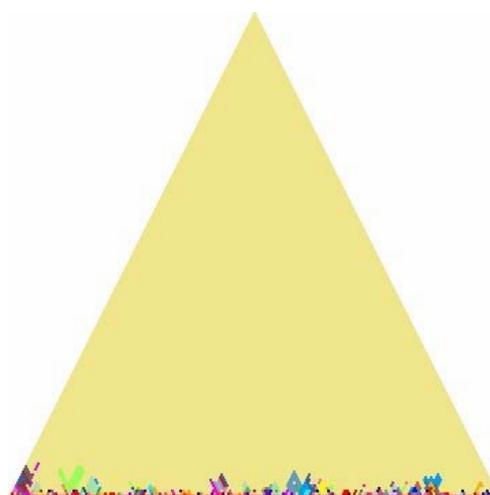


Figure 3

Timescapes are one way of expressing the relationship between the timing of different recorded performances; another is statistical (Pearson) correlation, where 1 represents total identity and 0 the lack of any relationship. The following table shows correlations for both Op. 17 No. 4 and Op. 68 No. 3, in each case comparing the relationship between the Hatto and Indjic recordings with relationships between different recordings by the same performer (Rubinstein 1939 and 1966), and recordings by different pianists (Indjic and Rubinstein 1939).

Op. 17 No. 4

Hatto/Indjic	0.996
Rubinstein 1939/1966	0.799
Indjic/Rubinstein 1939	0.616
Average of all recordings	0.641

Op. 68 No. 3

Hatto/Indjic	0.996
Śmidowicz (two reissues)	0.993
Rubinstein 1939/1966	0.773
Indjic/Rubinstein 1939	0.664
Average of all recordings	0.782

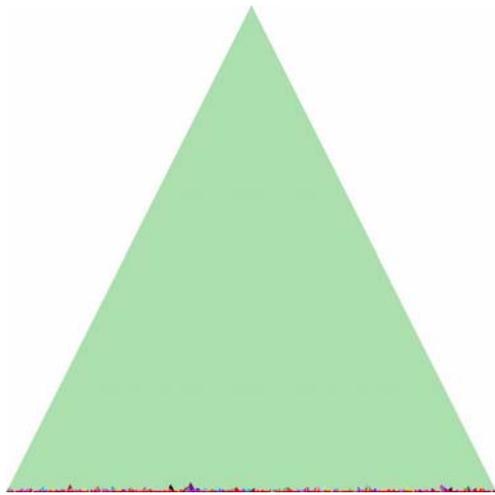


Figure 4

The figure of 0.996 for the Hatto and Indjic recordings of Op. 68 No. 4, as against 0.993 for the two reissues of the same Śmidowicz recording, is saying that the Hatto and Indjic recordings of Op. 17 No. 4 resemble one another just as closely as do the two releases of the same Śmidowicz performance. (The figures are not 1.00 because of limitations in the accuracy of data capture.) And it's the same story for the complete set of mazurkas. Both the Hatto and Indjic recordings contain the same 57 mazurkas, although this is not obvious at first sight, since the works without opus number appear in different places, and for some reason Op. 41 No. 1 appears twice on the Hatto set (at the end of the first CD and again at the beginning of the second). In addition the durations of the tracks vary slightly. This is partly because they incorporate varying amounts of silence

at the beginning or end of the track, but it is also because they play at slightly different speeds; in the case of Op 17 No. 4 the Hatto version plays about 0.7% slower, whereas in the case of Op. 68 No. 3 it is 2.8% slower—and in the case of another mazurka, Op. 24 No. 2, it is 1.2% faster. (Because our timescapes are based on relative timing, they show the similarities between the recordings despite these changes.) Even with the timing changes, however, the correlation for the entire set of track durations is far closer for the Hatto and Indjic sets than for the others:

Hatto/Indjic	0.999
Rubinstein 1939/1966	0.971
Indjic/Rubinstein 1939	0.954
<i>Average of all recordings</i>	<i>0.909</i>

These graphic and statistical analyses are valuable in that they bring a degree of objectivity to the comparison between the recordings. For many readers, however, the most convincing demonstration of the relationship between them may simply be to listen to them side by side. We have made a demonstration available on the web at <http://www.charm.rhul.ac.uk/content/contact/HattoIndjic.mp3>: this is a version of Op. 17 No. 4 in which the left track is taken from CACD 20012 and the right track from Calliope 3321, with the timing of the latter slowed down by 0.7% so that the two recordings synchronize. (In each case we have used the left track of the original recording.) For most people that's probably enough to settle the matter.

Nicholas Cook and Craig Sapp

Discography

Hatto, Joyce. *Chopin: The Mazurkas* (Concert Artist/Fidelio CACD 20012, 2006)

Indjic, Eugen. *Chopin: 57 mazurkas* (Claves CD 50-8812/13, 1988)

Indjic, Eugen. *Intégrale des mazurkas: Frédéric Chopin* (Calliope 3321, 2005; recorded 1988)

Jerzy Śmidowicz [on] *Fryderyk Chopin, Complete Works: The Golden Age of Polish Pianists* (Muza PNCD 300, 1995; recorded 1948)

Jerzy Śmidowicz [on] *The Great Polish Chopin Tradition V: Śmidowicz* (Selene CD-s 9905.50, 1999; recorded 1948)

Rubinstein, Arthur. *Fryderyk Chopin: Mazurkas* (Naxos 8.110656-57, 2000; recorded 1938-9)

Rubinstein, Arthur. *The Rubinstein Collection, vol. 50: 51 Chopin Mazurkas* (BMG 09026-63050-2; 2001; recorded 1965-6)

For some days after the story broke, William Barrington-Coupe insisted that the recordings issued in Joyce Hatto's name were genuine. On 26 February 2007, however, Gramophone published details of his confession that they were were after all fakes: he did it, he claimed, to give his dying wife the illusion of a great end to what he saw as an unfairly overlooked career.

(<http://www.gramophone.co.uk/newsMainTemplate.asp?storyID=2765&newssectionID=1>)

STAFF CHANGES

In autumn 2006 the Analysing motif in performance project got underway with the appointment of Neta Spiro as the project Research Fellow. Together with John Rink, and in collaboration with Nicolas Gold of King's College London, Neta will explore the relationships between music theory, performance and perception. Neta recently completed her PhD on the perception of phrasing under the joint supervision of Rens Bod (University of Amsterdam) and Ian Cross (Centre for Music and Science, University of Cambridge).

Autumn 2006 also saw the return of Francis Knights to the position of Discography Project Manager following Edward Taylor's brief but fascinating tenure of the role. Edward returned to work for his previous employer, the Mechanical-Copyright Protection Society, and we wish him well.

Still on the subject of the Discography project, CHARM's newest staff member comes in the form of Andrew Hallifax, the project's recently appointed Recorded Music Transfer Technician. Andrew began developing his expertise as an acoustic music recording engineer after graduating from the University of East Anglia in 1987 with a degree in Music. His classical and jazz recordings appear on many of the major European record labels including Decca, Deutsche Grammophon, Hyperion, Linn and Virgin Classics, and include Grammy, Prix de Cannes, and Gramophone Award winners. In his CHARM role Andrew will be transferring out-of-copyright recordings for download from the Discography project arm of the website (<http://www.charm.kcl.ac.uk/>).



Andrew Hallifax

performers, even the acoustic; anything in fact, but the artful craft of the production team. However, the customary notion that the role of the engineer is somehow to *capture* the truth and essence of a musical performance is as erroneous as it is ubiquitous. The infinite variety of subtly different variations in timbre that each musical instrument emits in an expanding sphere of sound waves is

WHO WE ARE

- Carol Chan (Royal Holloway, Centre Coordinator)
- Nicholas Cook (Royal Holloway, Director)
- Eric Clarke (University of Sheffield, Associate Director)
- Andrew Earis (Royal Holloway, Software consultant)
- Andrew Hallifax (King's College London, Recorded Music Transfer Technician)
- Francis Knights (King's College London, Discography Project Coordinator)
- Daniel Leech-Wilkinson (King's College London, Associate Director)
- Nick Morgan (University of Sheffield, Research student)
- David Patmore (University of Sheffield, Research Fellow)
- John Rink (Royal Holloway, Associate Director)
- Craig Sapp (Royal Holloway, Research Fellow)
- Neta Spiro (Royal Holloway, Research Fellow)
- Georgia Volioti (Royal Holloway, Research student)

You can find more about us at:

<http://www.charm.rhul.ac.uk/content/staff/staff.html>.

In addition to our own staff, CHARM's work is supported by a Management Committee

(<http://www.charm.rhul.ac.uk/content/structure/mc.html>),

Academic Advisory Board

(<http://www.charm.rhul.ac.uk/content/structure/aab.html>) and

International Advisory Panel

(<http://www.charm.rhul.ac.uk/content/structure/iap.html>).

Our thanks to all those who contribute to CHARM's success through their membership of these groups.

A SUBJECTIVE OBJECTIVE

As a classical music recording engineer I have long held the belief that if I do my job well, no one notices. And that's just as it should be. A well engineered recording presents music in its most favourable light, drawing attention to the repertoire,

continuously modified and characterised by the surrounding acoustic environment. Consequently, nothing determines the character of the recorded sound more than the precise location in which the engineer places the microphones; the movement of which, even by a few centimetres, is enough to alter the spectral timbre of a sound more than any other single intervention that might subsequently occur in the recording process.

However, most engineers keep this to themselves, while tactfully getting on with the business of recreating an idealised musical performance. But this is in itself a tricky business, not least because *the ideal* seems never to have been established and is rarely even discussed. The tacit, if somewhat threadbare assumption that the ideal sound should in some way represent what one hears from the best seat in a concert hall remains woven into the fabric of our contemporary approach to sound recording, even though the preponderance of today's classical music CDs rely on numerous enhancement techniques,

such as multiple microphones, adaptive mixing techniques, artificial reverberation, and surround sound, to immerse the listener in an increasingly idealised soundscape.

When the engineer's task is to restore, or re-master early 20th century recordings, one might suppose him (or more rarely, her) to be free from the dictates of twenty-first century taste. Indeed, the term *restoration* suggests that the job is analogous to art restoration or perhaps archaeological excavation. However, while both are interesting analogies, the imprecision, imponderables and plethora of diverse approaches to audio restoration perhaps suggest closer links to the legal profession. Facts are facts, but as anyone who has been in a court of law knows, the truth depends a great deal on interpretation. And anyone who listens to re-mastered 78s on commercial CDs will be quite familiar with the bewilderingly diverse scope of apparently *truthful* restorations.

Unfortunately, to ensure commercial success a record must appeal to the modern ear and to contemporary sensibilities. Today's listener is unused to the active, engaged listening that is necessary to derive musical satisfaction from the tiny, scratchy, telephone-like sound of an early acoustic recording. Rather, he/she expects a full-frontal, larger-than-life, passive listening experience that above all, conforms to his/her idealised sonic landscape. The task of the commercial re-mastering engineer is to assist the modern listener to bridge this divide to an earlier era.

For example, it's important that a compilation CD comprising a number of tracks from 78rpm records sounds consistent throughout its duration; otherwise the listener's attention will be distracted by extra-musical artefacts that change from track to track. Matching the tracks requires the amelioration or eradication of a variety of different types of surface and background noise: a delicate process that is difficult to achieve without jeopardising the recording's sonic integrity, which requires a great deal of experience, and often, more time than commercial constraints allow.

Happily, my objective as CHARM's transfer technician is rather different. The intention is neither to homogenise the recordings nor to spice them up in an attempt to broaden their appeal. Whether from a musicological, technical or cultural perspective, the methodology of sound recording in the first half of the last century was as undefined and innovative as it is calcified today. Indeed, one of the most fascinating aspects of 78rpm discs was the diversity of approach in the technical as well as the musical aspects of the recording process. Internal instrumental balance might have been determined partly by the technical constraints of the recording format, and the choice of recording acoustic was certainly as much a pragmatic as an aesthetic decision, but there was nevertheless a wide range of methodologies as I am sure the archive will reveal - while I remain as unobtrusive as ever.

Andrew Hallifax

REFLECTIONS ON A SYMPOSIUM

The fourth CHARM symposium was held at Royal Holloway in Egham from 12 to 14 April 2007, and focused on methods for analysing recordings. The symposium provided valuable insight into ongoing developments with analytical methods and their applications, but also highlighted numerous issues that still need to be confronted. For instance, the choice and suitability of a method, how to analyse data extracted from recordings, and how to interpret and evaluate findings are questions facing researchers across the entire spectrum of expertise. In addition, the broader implications of interdisciplinary cross-over beg further consideration, such as how profitably to exchange methodologies between different research domains.

On the computational front there were papers covering data extraction techniques, automatic analysis, tools with animated graphics and the use of Artificial Intelligence for performance analysis. Contributions from the musicological community were more concerned with the application of different methods for addressing research questions, and presentation topics ranged from comparative performance analysis to the transcription of Indian music and analysing popular genres. Of course, the dividing line between musicological and non-musicological interests, although often captured in witty punch-lines or reflected in terminological rifts, did not hinder interdisciplinary communication, and if temperatures rose in the room that was due more to the hot weather outside than heated temperaments inside!

Data extraction techniques and modelling expressive performance information

Timing information is a valuable tool in the study of expressive features in musical performance. Simon Dixon (*Queen Mary, University of London*) described

two programs, BeatRoot and MATCH, for extracting timing data. The first is a beat tracking device while the second aligns related audio files (e.g. different performances of the same work) with one another. Both of these tools can be used for performance

style recognition and have their distinct strengths - for example BeatRoot can work well with syncopation while MATCH can cope with extreme tempo variations.

Another means of extracting timing data was presented by Craig Sapp (*CHARM, Royal Holloway, University of London*). His approach uses a tapping method to obtain beat-level data which can be subsequently correlated at various timescales of the performance, from single beat and phrase level to the entire work. The method, which has been applied to comparative performance analysis of Chopin's Mazurkas, can be used to discern patterns of similarity and types of relationship between different performances.

Andrew Earis (*Royal College of Music, London*) presented a multi-stage, semi-automated process for the extraction of expressive performance information from acoustic recordings of piano music. The method relies on the use of a digitised version of the score which is synchronised with the recording in order to locate and extract data points in time and frequency.

Expressive performance data, such as tempo and dynamics, extracted from audio recordings, are customarily displayed in static graphical representations. However, these performance parameters can be more profitably harnessed through computational methods that reflect the changes over time. Werner Goebel (*McGill University, Montréal*) presented an animated graphics tool which captures expressive performance information in an aural/visual display. This technique, better known as the 'performance worm', provides a perceptually grounded response to expression during performance, and can be used to elucidate performers' intrinsic characteristics. In fact, the 'performance worm' seemed to gather an increasing amount of interest and excitement from delegates. Be it for its visual eloquence or captivating choreography it caused quite a stir with its leading-role performance! Notwithstanding its allure, this technique raised more important issues relating to the correspondence between visual representation and the nature of the perceptual response to music.

'Early recordings offer a rare glimpse of bygone eras, reflecting changes in performance trends and shifts in aesthetic judgement.'

Automatic analysis and future prospects

The automatic analysis of recorded collections promises to enhance and transform musicological research. Recent developments in the OMRAS2 project, presented here by Michael Casey and Tim Crawford (*Goldsmiths College, University of London*),

seem to provide a major step in this direction. The project is aimed at integrating various methods and resources for music information retrieval on large collections of digital music, both audio and score. One example of this large-scale potential was demonstrated by the automatic detection of ornaments in performance and how it can lead to the classification of performance styles. Another potential application of OMRAS2 was demonstrated by the automatic identification of repeated structures in performed music - a tool closely associated with the *CHARM Mazurkas* project where the occurrence of variable repeated structures in recorded performances of the mazurkas has been a confounding factor in beat-level comparative performance analysis.

Nicolas Gold (*King's College, London*) and Neta Spiro (*CHARM, Royal Holloway, University of London*) presented a computational approach to tracing motives in performance. A pattern-matching algorithm, based on principles from Lattice Theory, is used for the automatic identification of similar repeated temporal

patterns in performance. The model's capacity in accurately locating motives was demonstrated using Chopin's Etude Op. 10 No. 3, and there is scope to utilise this tool for mapping out different performers' style signatures.

Searching for performance signatures on a large-scale, Gerhard Widmer (*Johannes Kepler University, Linz*) discussed the unrivalled potential of Artificial Intelligence and Machine Learning for performance analysis. Projects based on data-intensive, bottom-up approaches were described for the identification of expression rules in performance and characterising performance styles. The presentation did stress, however, the semantic gaps that still exist between automated processes and the reality of musical performance.

Listen closely!

Automated computational tools, whilst invaluable in particular research settings, need not comprise the only means of extracting meaningful information from musical recordings. The immense value of close listening and aural observation were frequently highlighted throughout the symposium. Using such an approach, Daniel Barolsky (*Lawrence University, Wisconsin*) focused on a unique interpretation of Beethoven's *Waldstein* Sonata from an early recording by the pianist Josef Hofmann. The presentation addressed the implications of this rare document for our understanding of the performer's individuality within the reception history of Beethoven.

Daniel Leech-Wilkinson (*CHARM, King's College, London*), who also stressed the importance of close

listening, presented findings from comparative analyses of Schubert's song 'Die junge Nonne'. Using spectrographic techniques to hone in on micro-level details of singers' vocal inflections, Leech-Wilkinson considered how differences in the expressive devices employed by singers in performance lead to contrasting interpretations of the song's text.

Early recordings: unleashing their potential

Early recordings offer a rare glimpse of bygone eras, reflecting changes in performance trends and shifts in aesthetic judgement. Dorottya Fabian (*University of New South Wales, Sydney*) explored stylistic differences in vibrato and portamento from early violin recordings of Chopin's Nocturne in E flat Op. 9 No. 2. Her discussion aimed at illuminating the value of contrasting methodologies for addressing stylistic aspects of early twentieth-century violin performance practice.

Colin Gough (*University of Birmingham*) also focused on violin vibrato, but from a physicist's perspective. His presentation explored the relationship between acoustical analysis of vibrato and the perceptual signal. By examining the difference between frequency and amplitude modulations, it was demonstrated how the perceived changes in the incoming stimulus influence vibrato recognition. Gough also presented findings from a comparative study of recordings in which the idiosyncratic features of different performers' styles were demonstrated in terms of the perceived quality of their vibrato.

Per Dahl (*University of Stavanger*) discussed changes in twentieth-century performance trends of Grieg's song 'Jeg elsker Dig' Op. 5 No. 3. His statistical analyses indicated a decline in singers' tempo deviations across the century, and findings were further considered in light of the impact of recording technology on levelling-out performance variability.

Following up analyses

An often overlooked aspect arising from analytical investigations is the relationship between the representation of findings and the experiential involvement of the person(s) following these. Nicolas Donin (*IRCAM, Paris*) emphasised the practical need for an applied phenomenology of the analyst's activities in order to facilitate and encourage a broader understanding of the study of music as performance - something especially apt in view of the wide range of automated methods in this field. Donin presented examples from a new multimedia tool-kit developed for this purpose, which creates an interactive aural/visual (albeit somewhat 'graphocentric') environment for following up analyses.

Ethnomusicology and musical recordings

Concerning the use and analysis of recordings in ethnomusicological research, two speakers presented contrasting approaches to the transcription of Indian music. Wim van de Meer (*University of Amsterdam*) discussed a computer-assisted method based on a frequency model, for refining pitch-line representation of classical Indian music. These melographic transcriptions raised the issue of correspondence between the visual representation and the actual tracking of pitch, especially in fast melodic movements such as vibrato, and highlighted the perceptual gap that often exists between graphic analogues of sound and the aural experience.

Nicolas Magriel (*School of Oriental and African Studies, London*) presented a different approach for transcribing recordings of North Indian *Khyāl* based on his own listening and understanding of this music. Through microscopic listening at various playback speeds and using a symbolic system of representation, his transcriptions capture a whole new vocabulary of intertonal nuances. The vocal

intricacies of these nuances were demonstrated by the speaker himself – a refreshing interlude of lively performed, albeit short, music in the symposium!

On the use of recordings in ethnographic approaches, Martin Clayton (*Open University*) demonstrated how video data can provide a more holistic understanding of sound/gesture interactions in the performance environment. Clayton's presentation raised issues about the perceptual salience of gestural metaphors, such as the relationship between performers' conceptualisation of the music and listeners' responses, and how physical gesture can constitute a form of analysis of musical structure, for example in terms of gesture phrasing underlying segmentation.

The popular front

On popular music, Serge Lacasse (*Laval University*) proposed a method for approaching the analysis of popular song recordings from a narratological perspective which takes into account the music's phonographic nature. Using Eminem's 'Stan' as a case study, his analytical model looked at the interaction between the diegetic and supradiegetic dimensions as created by the different sound layers of the recording, the discussion extending to concepts of time, space and mood in popular song.

Using popular music examples, Simon Zagorski-Thomas (*Thames Valley University*) discussed issues concerning the use and analysis of multi-track master recordings. These provide valuable insight into the creative aspects of record production by illuminating the relationship between the final musical product and various stages in the production process. Given their limited availability, however, Zagorski-Thomas demonstrated how remixes and

'Multi-track master recordings provide valuable insight into the creative aspects of record production by illuminating the relationship between the final musical product and various stages in the production process.'

surround tracks can also be used instead to study musical phenomena, such as microtiming and instrument blending, in the musicology of record production.

On a final note

General comments and thoughts from the symposium reflected on the value of analytical tools in context, the meaning and representation of performance data from recordings, and the discrepancy that persists between micro-level analyses and the larger-scale musical conception. Interest was also voiced for more research into timbre, an area of musical sound that is indeed under-explored. The symposium also raised the all-important issue of keeping up interdisciplinary

communication and there was a consensus for an on-line interactive research forum: it is hoped that this will be provided by the OMRAS2 project website (<http://www.omras2.com>) and/or CHARM. Finally, a big thank you goes out to all speakers, participants and the organisers of course for making this symposium a successful event.

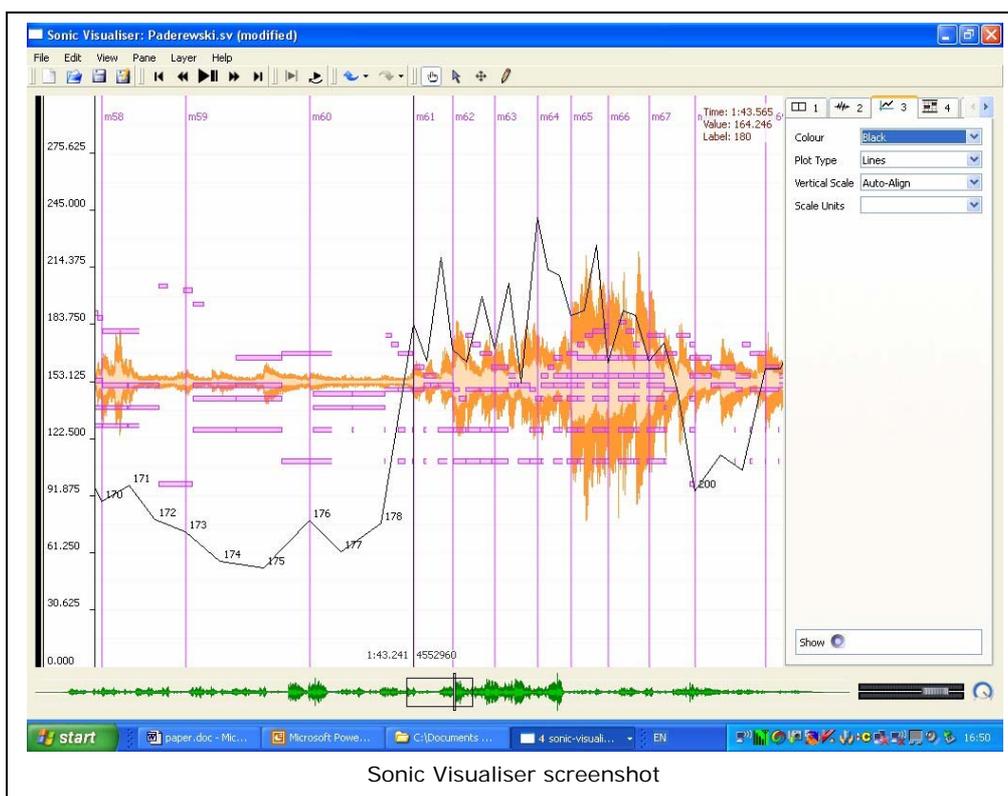
Georgia Volioti

Papers and presentations from this symposium will be available to download from the CHARM website over the coming months.

(<http://www.charm.rhul.ac.uk/content/events/symp4.html>)

TRAINING MATERIALS FOR SONIC VISUALISER

Sonic Visualiser, developed during 2006-07 at Queen Mary University of London, is a free software environment that allows you to navigate recordings, for instance by labelling them with bar numbers, as well as providing spectrographic and other forms of visualisation. This is so useful for CHARM's work that we have developed training materials covering how to access and install Sonic Visualiser, how to use it to create a study environment and generate timing data, and how to exploit its spectrographic analysis features. To help you work through these materials we have included recordings and pre-prepared Sonic Visualiser files. You can download the training materials from the CHARM website, and select 'Sonic Visualiser tutorials'. While you're there, check out the other materials on our resources page: <http://www.charm.rhul.ac.uk/content/resources/resources.html>).



Copyright update

In the 2006 CHARM Newsletter we described the problems copyright law creates for researchers into recordings, as well as the music industry's campaign to extend copyright in recordings to 95 years, and summarized CHARM's submission to the Gowers Review of Intellectual Property. Gowers reported in December 2006 (http://www.hm-treasury.gov.uk/media/583/91/pbr06_gowers_report_755.pdf), and the recommendations included precisely what we had pressed for: the fair dealing exceptions to apply in full to sound recordings, and the copyright term to remain at 50 years. Now we are waiting for legislation.

LIFE BEYOND CHARM: THE AHRC RESEARCH CENTRE FOR MUSICAL PERFORMANCE AS CREATIVE PRACTICE

The AHRC Research Centre for Musical Performance as Creative Practice (CMPCP) will be launched in April 2009 as a Phase 2 successor to the existing AHRC Research Centre for the History and Analysis of Recorded Music. Its five-year research programme will focus on live musical performance and creative music-making. The new Centre will undertake five research projects with associated workshops, and a Performance Studies Network will enable collaborative research between scholars and performers from around the world. Visiting Fellowships and two doctoral studentships will also be awarded. Full details of the Centre's planned activities can be found at www.cmcp.ac.uk.

CMPCP will be based at Royal Holloway, University of London with partnerships at King's College London and the University of Oxford (subject to AHRC approval, following Eric Clarke's move there). One of the research projects will take place at the Royal College of Music. The Centre's total budget will be approximately £2.2 million, with an AHRC grant of over £1.7 million and contributions of c. £430,000 from the three partnership institutions. CMPCP will be led by John Rink, and the directorate will also include Nicholas Cook (currently Director of CHARM), Daniel Leech-Wilkinson, Eric Clarke and Tina K. Ramnarine.

The Centre for Musical Performance as Creative Practice will address such questions as:

- How is musical performance creative, and what knowledge is creatively embodied in musical performance?
- How does music in performance – and indeed the very act of performance – take shape over time? and
- How does understanding musical performance as a creative practice vary across different global contexts, idioms and performance conditions (such as solo and ensemble, in the rehearsal room, recording studio and concert hall)?

CMPCP will build on CHARM's research achievements and the collaborative relationships established to date, but it will pursue different aims within wider musical and intellectual contexts. Whereas CHARM's aim is to 'promote the study of music as performance through a specific focus on recordings', CMPCP will strive towards new understanding of musical performance's creative dimension as manifested in live music-making. In this way it will take further the reassessment of musicology to which CHARM is committed, engaging directly with solo and ensemble performers and teachers, as well as more diverse repertoires from various musical traditions.

The new Centre's principal aims are therefore:

- to undertake studies of live performance and rehearsal in a range of contexts and conditions
- to pursue research on performance from a global perspective (including ongoing engagement with Western art music, which is CHARM's current remit)
- to explore creative practice through collaboration with composers, teachers, performers and producers
- to establish a hub for national and international research in this area, one that embraces musical amateurs and professionals as well as the creative industries
- to generate enduring capacity and capability – i.e. physical and intellectual infrastructure, defined in terms of knowledge, skills and resources – for research on musical performance beyond 2014, when CMPCP's AHRC funding will end
- to challenge musicology's assumptions about what music is and the status of musical performance.

John Rink



CREDIT WHERE IT'S DUE: THE NATIONAL GRAMOPHONIC SOCIETY

Nicholas Morgan was appointed to a CHARM doctoral studentship at the University of Sheffield in October 2006. Before that he was a producer for BBC Radio, making programmes about music and science, but originally trained, against his will, as a classicist.

In my first six months since registering, I have found a subject that fits neatly into Sheffield's CHARM study of the UK record industry between 1925 and 1932, which is being conducted by Eric Clarke and David Patmore. The National Gramophonic Society was founded by the novelist and journalist Compton Mackenzie in 1924, hot on the heels of *The Gramophone*. Its goal was to 'aim at achieving for gramophone music what such societies as the

Medici have done for the reproduction of paintings and for the printed book', by issuing complete recordings of works, mainly chamber music, which at the time seemed unlikely to be issued commercially. The NGS made premiere recordings of many cornerstones of today's repertoire, from quartets by Haydn and Beethoven, Debussy and Ravel to then new music by Schoenberg, Malipiero and Warlock. Its releases were financed by subscription and it continued production until 1931.

I have been researching the Society's workings, membership and recordings. All the NGS's issued recordings survive, 165 discs in all, with almost complete runs held at the British Library and at King's College London. Its papers appear to have been destroyed but 'Notes' for members were printed almost monthly in *The Gramophone*, which, along with editorials, letters, advertisements and reviews, as well as separate flyers and catalogues, make up substantially for this loss. I also already found many notices and reviews of the NGS's records, not only in the musical press but beyond, as well as abroad. I'm especially interested in the members of the NGS and have been able to pinpoint several of them, including some in the USA and even Japan, fascinating detective work which I intend to take further.

Just as interesting are the musicians who recorded for the Society, among them W. W. Cobbett, patron and promoter of British chamber music, and André Mangeot, French-born string quartet leader and founder of an adventurous London concert society, not to mention artists who won international renown, such as Léon Goossens and John Barbirolli. On the NGS Advisory Committee were three *Gramophone* critics, all influential musical educationalists: Alec Robertson, W. R. Anderson and Peter Latham. Members, artists and chamber music propagandists – all have much to teach us about the musical, social and business context in which both the not-for-profit NGS and Britain's commercial record industry operated.

The discs themselves document a crucial time for the whole industry, when it moved not only from acoustical to electrical recording, but also from a rather half-hearted engagement with 'highbrow' repertoire (in the first number of *The Gramophone* Mackenzie counted only 15 works of chamber music on his shelves) to its thorough-going exploitation and marketing. In HMV's hands one of these marketing initiatives, the Society Editions, won great prestige and success; Mackenzie was cautious in claiming any influence of the NGS on HMV's Societies, but my research is beginning to suggest it deserves far more credit.

SPECIAL CHARM ISSUE OF MUSICAE SCIENTIAE

CHARM's work is featured in an upcoming issue of *Musicae Scientiae*, the journal of the European Society for the Cognitive Sciences of Music (ESCOM). Edited by Nicholas Cook, Volume 11/2 (Fall 2007) consists of articles by members and associates of CHARM, with approaches ranging from computer science to psychology to musicology. The contents are as follows:

- An algorithm to extract expressive performance information from acoustic recordings of piano performance, *Andrew Earis*
- Performance analysis and Chopin's mazurkas, *Nicholas Cook*
- Sound and meaning in recordings of Schubert's 'Die junge Nonne', *Daniel Leech-Wilkinson*
- Vocal expression in recorded performances of Schubert songs, *Renee Timmers*
- Making and hearing virtual worlds: John Culshaw and the art of record production, *David Patmore and Eric Clarke*
- Towards greater objectivity in music theory: information-dynamic analysis of minimalist music, *Keith Potter, Geraint Wiggins, and Marcus Pearce*
- Review of Adam Ockelford's 'Repetition in music: theoretical and metatheoretical perspectives', *Georgia Volioti*

You can find details of *Musicae Scientiae* at <http://musicweb.hmt-hannover.de/escom/english/MusicScE/MSstart.htm>.

THE CHARM LIBRARY

Most record collectors will have on their shelves some of the glossy catalogues produced by the record companies in the 1980s and 90s. These were usually issued annually, at least by the major companies, but are becoming increasingly rare as web-based catalogues take over. The latter have many advantages – they can include far more information (including full ensemble lists, soundclips and reviews), they can be kept up to date and they can be linked to other pages such as artists' sites.

However, the old catalogues are still a valuable source of information, especially as many date back decades. As well as the 'promotional' type of full-colour catalogue intended for buyers, there are also plainer retail catalogues, designed as reference works for dealers; these are an idea as old as the gramophone record itself. The printed catalogues are not only a valuable source of information about deleted items, but they may also be the only reference materials remaining for those companies

whose archives have been discarded or destroyed over the years, or for those companies which no longer exist.

In order to supplement the electronic data that collectors like Alan Kelly, Michael Gray and Karsten Lehl have kindly given us, the CHARM office at King's has been collecting record catalogues since the project started, and thanks to the generosity of many people, we now have a very substantial collection of more than 300 volumes dating from the early 1930s to the present day.

As well as a representative selection of modern catalogues for companies like Hyperion, Harmonia Mundi and Naxos, there are extensive runs for Decca and EMI in particular. The Decca sequence contains

many catalogues for the period 1948-1979 (plus some outside this), while the extensive EMI holdings include publications from 1931-2002 – this is on the way to becoming a complete run of material, including dealer lists, numerical and alphabetical catalogues and monthly release sheets.

The catalogues can be viewed by appointment, and Francis Knights (email fk750@hotmail.com) is happy to make initial searches on request. We continue to expand the collection, and would be happy to hear from anyone with material to donate. The full list will hopefully go online on the CHARM site in the coming months.

Francis Knights

CHARM PROJECT UPDATES

DESIGNING THE CHARM DISCOGRAPHY INTERFACE

The collecting and editing of data on historical recordings has so far occupied most of our time at the CHARM discography project at King's College, London, but the time has now come to consider the presentation of this material online. Working in collaboration with Paul Spence, Elena Pierazzo and the rest of the expert team at the Centre for Computing in the Humanities, we have begun designing the search engine which will enable users to access the material. Existing online classical discographies do not really offer the sophisticated search facilities that would enable users to pinpoint the material they want from among the hundreds of thousands of data records available, and so we are fortunate to have the opportunity to design our own interface from the ground up.

Many users will have quite straightforward search requirements, so the front page will comprise a Simple Search query form, including just Composer, Work and Performer. It will be possible to display only results that are linked to sound clips; this will become increasingly important, since CHARM's new Transfer Engineer, Andrew Hallifax, will be placing transfers of 78s from the King's Sound Archive on our website. There will also be the usual Help pages, plus an Introduction and an Example Search page. For those researchers needing to look deeper, an Advanced Search page will enable the use of a much greater variety of parameters – always remembering the data for early recordings is rarely complete, so the results must be interpreted with care. For example, a search to find all the tenor arias from Verdi's *Otello* sung in German and recorded in Berlin between 3rd May 1927 and 27th June 1931 will only be useful if every piece of that data is actually there – if some relevant recordings lack venue information they will not appear. There will undoubtedly be a learning curve for most users, as the most effective way of extracting information from the database becomes clear, perhaps by searching just on two or three elements then adding others to zero in on the desired area.

The search elements we are initially planning to include are Composer, Work, Performer, Voice/Instrument, Language, Recording location, Recording date, Company and label, Catalogue number, Matrix number, Producer/engineer and Format. This is not obviously comprehensive – one discographer claims that a database should include as many as 130 pieces of information per recording – but will cover the vast majority of information needed for searches for pre-War recordings. For those unsure about composer or artist spellings (or wanting to find both 'Chaikovsky' and 'Tchaikovsky') there will be drop-down authority lists to help.

Some of the greatest problems come with the variety of numbering systems used by record companies. While a simple data-string catalogue number like 'HMV DB3024' is a straightforward concept, this also needs to be searchable as a prefix and number – for the prefix here represents a series, which might be looked for as an entity. Matters become more complicated with matrix numbers, which can have as many as five elements, such as '2EA 14355-3A' – a user who needs to search just by one or two segments may be rare, but you can bet they exist! The challenge is to design an interface which allows easy and unfussy access for the most common search items, but is capable of highly specific searches in other areas. If you have views you'd like to give us before we finalise the design, please get in touch now.

For more information, or to make suggestions regarding the site design, please contact Francis Knights (email: fk750@hotmail.com) at King's.

MAZURKAS PROJECT UPDATE

The first major element in this project, the development of data capture routines, has been completed. Andrew Earis' software, which will soon be available for free download from the CHARM website, enables capture of timing and dynamic information from recordings of piano music down to single-note level, with a resolution sufficient to distinguish different notes in chordal attacks, and has also been supplemented by a number of plug-ins for Sonic Visualiser developed by Craig Sapp. The result is an integrated environment for data capture, providing relatively simple capture of global data using Sonic Visualiser (sufficient for many applications), plus more complex procedures (using Andrew's software) for where you need more refined data.

Craig has developed a range of graphic representations for analysing tempo (timescapes) and dynamics (dynascapes); some of these are designed to bring out relationships within a single recording, others to bring out relationships between recordings. It was these that led to our discovery that the 2006 Concert Artists recording of Chopin's

Mazurkas under Joyce Hatto's name was in fact an illegal re-release of Eugen Indjic's 1988 recording. We have also been working with Dr Nicolas Gold of King's College London on the use of self-organizing maps and related techniques, while the award of EPSRC funding for the OMRAS2 project (headed by Queen Mary University of London) has opened up new possibilities for the analysis of full-audio data, beginning with the detection of differing patterns of repetition in mazurka recordings.

The Hatto scandal led to our work being mentioned on the Radio 4 Six o'clock news, Front Row (twice), CD Review, and Music Weekly. The project is featured on Ying Chang's Musical Pointers website, ('The Mazurka project: recorded music as performance',

<http://www.musicalpointers.co.uk/articles/generaltopics/TheMazurkaProject.html>), and two articles emerging from it will be published in the upcoming CHARM issue of *Musicae Scientiae*.

Nicholas Cook

You can find out more about the Mazurkas project at <http://www.mazurka.org.uk>.

RECORDING AND PERFORMANCE STYLE

The principal focus this year has been the business history of the Gramophone Company and the Columbia Graphophone Company between 1925 and 1932: the climax of this period was the merger that led to the formation of EMI (Electric and Musical Industries Ltd). In addition, an unanticipated but highly relevant new element of research has been the concert and recording career of Sir Henry Wood, a major conductor of the period whose fortunes were closely bound up with the Columbia label, for which he recorded. This has shown that the introduction of electrical recording at the same time as rising consumer spending had a dynamic effect upon the English record industry. Both companies became highly competitive, moving quickly into those new fields of recording identified by rivals. As a result repertoire grew significantly, in both symphonic and chamber music as well as in opera. At the same time existing contract artists initially enjoyed additional recording work and new artists were introduced to the catalogue.

However, not all was rosy in this particular garden. As both companies fought to develop their international presence, a perceptible shift took place as the 1920s drew to a close that favoured those artists with international rather than local reputations. This trend was greatly accelerated by the impact of the Crash of 1929 and the economic depression which followed. As a result of a massive slump in sales and the subsequent merger, local musical employees were laid off in Italy, France and England, and many contracts were not renewed. Only those with the most international sphere of activities continued to be recorded: artists such as Sir Henry Wood, with strong local reputations, were let go. Their recording activities either ceased or were transferred to other, usual les prestigious, labels. And in Germany, because of specific political developments, the recording industry ceased to be in any way representative of musical life.

This development seems to have had two long-term consequences. The musical languages of those performers who continued to be recorded arguably became the *lingua franca*, at least in Europe; the conductors Felix Weingartner and Bruno Walter are the primary examples of this trend. At the same time the musical languages of those who ceased to be recorded, or whose recording activities became less, became much more muted, and vanished altogether with the advent of the long-playing record after the Second World War, by which time most of these musicians had died. Wood is an example of those in this latter camp.

In other words, the consequences of commercial competition,



What's in a name (2): A slice of CHARM for 99p?
(© Chang-Yip Wan)

slump and consolidation were to emphasise one interpretive style – the internationally acceptable – at the expense of other, local, styles. All that we have left of those silenced in this way are their recordings; hence the enormous value of studying them.

Future directions of research will include:

- the communication and promotional strategies adopted by the recording companies during the period under review;
- the development of the idea of celebrity in the record industry, and
- the National Gramophonic Society, a local record company which had a clear impact upon artists and repertoire recorded during the 1920s. This is Nick Morgan's project, detailed elsewhere in this Newsletter.

David Patmore

PRESENTATIONS AND PUBLICATIONS

The following listing includes only those presentations and publications by CHARM staff that relate to the history and analysis of recorded music.

Eric Clarke's article 'The impact of recording on listening' is forthcoming in *Twentieth-Century Music*.

Nicholas Cook gave presentations at Hanyang University, Korea (12 April 2006); University of Sheffield (4 May 2006); Gothenburg Musicology Conference, Sweden (16-18 August 2006); ANPPOM (16th Brazilian Congress on Music Research), Brasilia (28 August–1 September 2006) [keynote]; University of Parana, Curitiba, Brazil (2 September 2006); Escola Superior de Musica de Lisboa, Portugal (27-8 October 2006); 'Chopin in Paris: the 1830s' conference, Warsaw, Poland (30 November – 2 December 2006); Digital Music Research Network workshop, Queen Mary University of London (20 December 2006); Royal Academy of Music (23 February 2007); University of Surrey (6 March 2007); and an Inaugural lecture, Royal Holloway, University of London (26 March 2007). In addition he gave joint presentations with **Craig Sapp** at the Music Cognition Group, University of Amsterdam, The Netherlands (12 October 2006); Music Department colloquium, Royal Holloway, University of London (6 December 2006); and at the conference 'Reactions to the record: Perspectives on historic performance', Stanford University (19-21 April 2007). Publications by Nicholas Cook in the past year include: 'Changing the musical object: approaches to performance analysis', in *Music's Intellectual History: Founders, Followers and Fads*, ed. Zdravko Blazekovic (New York: RILM, forthcoming, also forthcoming in Portuguese translation); and his paper 'Performance analysis and Chopin's mazurkas', in 'Chopin in Paris: The 1830s' (Warsaw: Narodowy Instytut Fryderyka Chopina, forthcoming).

Daniel Leech-Wilkinson gave presentations at 'Music & Gesture 2', Royal Northern College of Music (20-23 July 2006) [keynote]; Institute of Advanced Musical Studies colloquia, King's College London (27 September 2006); 'Aspekte der Streicherpraxis in der Romantik', Hochschule der Künste, Bern, Switzerland (18-19 November 2006); and at 'Listening: Interdisciplinary Perspectives', King's College, Cambridge (24-25 November 2006). Outputs published or in press include 'Portamento and musical meaning', *Journal of Musicological Research* 25 (2006) 233-61; 'Expressive gestures in Schubert singing on record', *Nordisk Estetisk Tidskrift (Nordic Journal of Aesthetics)* 33 (2006) 50-70; and a chapter, - 'Musicology and performance', in *Music's Intellectual History: Founders, Followers & Fads*, ed. Zdravko Blazekovic (New York: RILM, forthcoming).

David Patmore gave presentations at the Association for Recorded Sound Collections (ARSC) conference, Seattle, USA (19 May 2006); and at the Royal Academy of Music (26 May 2006, 29 September 2006 and 23 February 2007). He has also written numerous articles for publication including: 'Recording and the Rattle phenomenon', in *Recorded Music: Society, Technology and Performance*, ed. Amanda Bayley (Cambridge University Press, forthcoming); Paul Kletzki: Early recordings with the Philharmonia Orchestra, *Classic Record Collector* (forthcoming); 'A testament to a legend', *Classic Record Collector* (summer 2006) 53-55; 'The ears have it', *Classic Record Collector* (winter 2006) 64-67; with Lonn Henrichsen, 'The ascent and descent of Everest', *Classic Record Collector* (spring 2007) 42-48; and, 'The laughing discman', *Classic Record Collector* (spring 2007) 52-53.

John Rink presented papers at 'Chopin tel qu'en lui-même' festival, Rencontres Internationales Chopin, La Châtre, France (18-21 July 2006); Polen 2006 Festival, Trondheim, Norway (13-22 October 2006); University of Parana, Curitiba, Brazil (November – December 2006); Centre for Creative Performance, Guildhall School of Music and Drama, London (6 February 2007); conference of the Gruppo Analisi e Teorico Musicale (GATM), Rimini, Italy (8-10 March 2007). A key activity has been spearheading the application for the Phase 2 AHRC Research Centre for Musical Performance as Creative Practice (CMPCP). After the announcement of the AHRC's decision in July 2006, a national press release was issued and features appeared in *Music Journal* (Incorporated

Society of Musicians), *Music Teacher*, *Classical Music* and *Sheffield Telegraph*. The CMPCP website was launched in March 2007 (www.cmppc.ac.uk).

In addition to presentations with Nicholas Cook, **Craig Sapp** has presented papers at Cambridge University (28 November 2006); City University (22 February 2007); and jointly with **Andrew Earis** at the Musical Acoustics Network Conference with Groupe Specialise Acoustique Musicale (France), in association with Royal College of Music and London Metropolitan University (20-21 September 2006). Craig wrote a Mazurkas project report for the RMA newsletter (autumn 2006).

In addition to the special CHARM issue of *Musicae Scientiae* work is ongoing for a further publication coordinated by CHARM: Eric Clarke, Nicholas Cook, Daniel Leech-Wilkinson, and John Rink (eds.), *The Cambridge Companion to Recorded Music*

FOR YOUR DIARY

Combined CHARM Conference and RMA Annual Meeting:

Musicology and recordings

September 13-15 2007, Egham

(further details: <http://www.charm.rhul.ac.uk/content/events/2007conference.html>)

Other upcoming events (precise dates and further information on these events will be posted online at <http://www.charm.rhul.ac.uk/content/events/events.html> as soon as they become available):

- CHARM Symposium 5 – April 2008
- CHARM Symposium 6 – September 2008

GETTING IN TOUCH WITH CHARM

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