Analysis, Cognition and Ethnomusicology

JOINT MEETING OF THE

Annual Conference of the British Forum for Ethnomusicology
AND THE Third International Conference on Analytical Approaches to World Music

IN ASSOCIATION WITH THE Centre for Music and Science (University of Cambridge) AND THE Society for Music Analysis

Conference Programme

1-4 July 2014,

HOSTED BY THE Institute of Musical Research (IMR) AND THE School of Oriental and African Studies (SOAS), University of London







http://AAWMConference.com/ http://www.BFE.org.uk/

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WELCOME

Welcome to *Analysis*, *Cognition and Ethnomusicology*, a unique experiment in dialogue about world music between diverse traditions of musicology. Planning for this event began in May 2012, at the second international conference on *Analytical Approaches to World Music* at the University of British Columbia, when it was decided that the third conference should be held in London, hosted by the SOAS Department of Music. A one-day workshop on cognition and ethnomusicology, in collaboration with the Centre for Music and Science, University of Cambridge, was added to this plan; but in November 2012 the possibility arose of combining the whole event with the annual conference of the British Forum for Ethnomusicology. This idea was enthusiastically embraced by all concerned. Funding for conferences in arts and humanities in the UK is limited, but the IMR agreed to co-host the event, BFE and the SOAS Faculty of Arts and Humanities funded student bursaries and musical performances, and the Society for Music Analysis and the Faculty of Music of the University of Cambridge offered additional financial support; we are grateful to all for making this conference possible.

Dialogue requires both separate interlocutors and a shared process. AAWM and BFE have their own identities and traditions, manifested at this conference in the different format of conference panels (with 30- or 20-minute papers respectively); papers have been selected and panels created by separate programme committees, chaired by Jay Rahn and Rachel Harris respectively (Ian Cross and I were responsible for the cognition panels, and Shay Loya devised an SMA-sponsored panel). But a Local Arrangements Committee has overseen the shared process, including a programme in which panels are not identified as specifically "analysis" or "cognition" or "ethnomusicology", and which we hope will encourage exploration, comparison, and of course dialogue. What we learn from this experience, and where cross-disciplinary research in world music might go from here, will be the subject of the Plenary discussion on the final afternoon of the conference.

Other traditions, shared and divergent, are also reflected in the organization of this conference. AAWM conferences emphasise commensality, here reflected in a shared lunch, and arrangements to enable delegates to meet for dinner at local restaurants in the evening. A BFE tradition is the Annual General Meeting, scheduled for lunchtime on 4 July; non-members will be welcome to become members during the conference if they wish. Both communities emphasise performance, and we will be serenaded at various times by 11 groups of performers, all based in or growing out of the SOAS Music Department. Performance also features in an age-old BFE tradition, the "open mic" party, where delegates are encouraged to demonstrate their global musical skills in an informal and convivial context. This will take place on the final evening: everyone is invited to attend, and perform if they wish. It will be our last chance to dialogue at *Analysis*, *Cognition and Ethnomusicology* 2014.

Richard Widdess Department of Music, SOAS rw4@soas.ac.uk

DIGITAL PROGRAMME

QR Code: Scan using a QR reader on your mobile device. This links to a folder containing a digital copy of the Conference Programme, should you wish to open or download one, and a live Conference Timetable, updated daily with any last-minute adjustments to the programme.



Alternatively go to: http://goo.gl/OhDEI1

ANALYSIS, COGNITION AND ETHNOMUSICOLOGY

CALL FOR PAPERS

July 1-4, 2014

Hosted by: Department of Music, School of Oriental and African Studies (SOAS), University of London and Institute of Musical Research (IMR), School of Advanced Studies, University of London in association with the Centre for Music and Science (University of Cambridge) and the Society for Music Analysis.

Recent conferences on Analytical Approaches to World Music (AAWM) and associated publications (including an on-line journal of the same name, and two volumes of studies edited by Michael Tenzer and John Roeder) have reflected and stimulated a renewed interest in world music by music analysts and theorists, and in musical analysis by ethnomusicologists. They mark a new attempt to explore the panoply of global musical traditions, both past and present, from the broadest possible array of theoretical, cultural, historical and analytical perspectives.

By combining AAWM 2014 and BFE 2014, with the support of the Society for Music Analysis, into a joint conference, we hope to stimulate debate and new insights around questions such as:

- · what can analysts and ethnomusicologists learn from each other?
- · how can ethnography inform or re-focus analysis, and vice versa?
- · how far can the same methods be applied to the analysis and ethnography of different musical traditions and cultures?
- · what analytical perceptions do musicians and theorists of different global traditions offer?

As a bridge between the analytical and ethnomusicological disciplines, papers on relevant aspects of music cognition, including Music and Language, Interaction, and Cross-cultural Psychology, are invited. And as at all BFE conferences, papers on new directions and work in progress in ethnomusicology, unrelated to the theme, are also encouraged.

By bringing together theorists, ethnomusicologists, musicologists, psychologists and performers of diverse cultural and academic orientations, Analysis, Cognition and Ethnomusicology provides a unique interdisciplinary forum for cultivating new modes of musical description and understanding, capable of navigating the vast multicultural soundscape of the twenty-first century.

Keynote speakers:

Prof. Nicholas Cook (University of Cambridge)Prof. Martin Clayton (University of Durham)Dr Laudan Nooshin (City University, London)

Links:

Conference committee: bfeconference2014@gmail.com

Analytical Approaches to World Music: http://aawmconference.com/

Institute for Musical Research: http://music.sas.ac.uk/
Society for Music Analysis: http://www.sma.ac.uk/

Centre for Music and Science, Cambridge: http://cms.mus.cam.ac.uk/

Department of Music, SOAS: http://www.soas.ac.uk/music/

ACKNOWLEDGEMENTS

The Analysis, Cognition and Ethnomusicology Conference Programme Committee would like to thank the following organizations and individuals for their help in bringing this conference to fruition:

AAWM Board & Programme Committee:

Colin Lewis, Designer

Jay Rahn, Programme Committee Chair (York University)

John Roeder (The University of British Columbia)

Justin London (Carleton College and University of Cambridge)

Kalin Kirilov (Towson University)

Keith Waters (University of Colorado at Boulder)

Lawrence Shuster (College of St Rose)

Michael Tenzer (The University of British Columbia)

Monique Desroches (Université de Montréal)

Teresa Davidian, Assistant Organizer (Tarelton State University)

Tim Rice (University of California at Los Angeles)

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Fiorella Montero Diaz (BFE)

Ian Cross (CMS, University of Cambridge)

Shay Loya (SMA)

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Raquel Campos Valverde (SOAS)

Ruard Absaroka (SOAS)

Suchada Sowat (SOAS)

Analysis, Cognition & Ethnomusicology 2014 - Conference Timetable

$\begin{array}{c} {\rm DAY1} \\ {\rm Tuesday} \\ {\rm 1^{st}July} \end{array}$	10:00-15:00	Registration desk open Book display BFE mem	10:00-15:00 Registration desk open Book display BFE membership desk Participants' table @ <i>Deller Hall in Senate House</i>	senate House
10:30-11:30		TEA / COFFEE @ Del	TEA / COFFEE @ Deller Hall in Senate House	
	Court Room	Room G22	Room 103	Room 104
Session 1 / I 11:30-13:30	Panel 1 : Cycles Chair: Lawrence Shuster	Panel 2: Urban Spaces Chair: Shzr Ee Tan	Panel 3: Extempore Performance Chair: Kalin Kirilov	Panel 4: Memory & History Chair: Catherine Ingram
11:30	Large-Scale Formative Processes in Ostinato Music John Roeder, Michael Tenzer	Marginal Musical Spaces at St Aldates, Oxford Mark Porter	Revealing the Changing Faces of Korea's East Coast Shaman Ritual Music: Analysing Personal Style in an Improvised Musical Tradition Simon Mills	Music and Society in Cyprus: The Local and the European during the early 20th century Anastasia Hasikou
12:00	The Sound of Stretched Time: The Modulation of Phrase, Pattern, and Attention in Central Javanese Gamelan Music Christopher J. Miller	You Could Sing Your Way Out of Pain: Music and Resistance at Robben Island Prison Janie Cole	The Sale that Sings: Considering Melody, Rhythm, and Meter in American Auctioneering Nikki Malley	What do Historical Notations teach Korean Musicologists? Keith Howard
12:30	Hearing Cycle in Korean Court Ensemble Music Grant Sawatzky	The Night of the Singing Balconies: Organised Anarchy in East Berlin Phil Alexander	Affect, Improvisation, and Interaction in Diasporic West African Music: An Interdisciplinary Perspective Chris Stover	Sounding Memories: Musical Practices as Narrative in the Expulsion of the Germans from the Bohemian Lands Ulrike Präger
13:00	Discussion	With Ears Wide Open: Analysing the Jerusalem Soundscape Abigail Wood	Discussion	
13:30-15:00		LUNCH @ Deller Hall Musi	@ Deller Hall Musical Performances @ Room G22	
Session 1 / II 15:00-17:00	Panel 5 : Cultural Schemas Chair: Ian Cross	Panel 6: Metre & Micro-Timing Chair: John Roeder	Panel 7 : Audio Recordings Chair: Rachel Harris	Panel 8: Versions & Variants Chair: Jay Rahn
15:00	Maltese prejjem: An Arabic musical process concealed in a European tradition Andrew Pace	Beat Detection and Computer Improvisation in Traditional Music from Madagascar Marc Chemillier	Pop Goes the Work-Concept: Ethnography and the Analysis of Arr Music Recordings Gregory Weinstein	Revisiting Tune Families in Shape-Note Hymns Rachel Wells Hall
15:30	"Lineages of Knowledge": Apprenticeship among the Mande Hunters of Mali Theodore L. Konkouris	Diversity of Performance Timing in Balkan Music Daniel Goldberg	Breathing Life to Iron: Audio Recordings and the (Re)making of the Jew's Harp Virtuoso Deirdre Morgan	Leaping Dances in Crete: Tradition in Motion André Holzapfel
16:00	"Balochan": Analysis of a Desert Folksong in Two Contemporary Rajasthani Performance Contexts Morgan Davies	Where is the Metrical Accent? Prolegomena to a Comparative Study Marc Perlman		Transforming African Music Cycles in 12 Easy Steps Michael Tenzer
16:30	The Cognition of Time in Korean Traditional Music Hyelim Kim	Discussion		Discussion
17:00-17:30		JUICE @ Foyer of Brun	JUICE @ Foyer of Brunei Gallery Lecture Theatre	
17:30-17:45		WELCOME @ Brunei	WELCOME @ Brunei Gallery Lecture Theatre	
17:45-18:45		KEYNOTE I: Music, Identity, and the Chair: Abigail Wood∣@ SOAS	KEYNOTE I: Nicholas Cook Music, Identity, and the Clever Boy from Croydon Chair: Abigail Wood © SOAS Brunei Gallery Lecture Theatre	
18:45-20:00		RECEPTION	RECEPTION @ Brunei Suite	
20:00-22:00		DIN	DINNER	

DAY 2 Wednesday	10:00-15:00	Registration desk open Book display BFE mem	10:00-15:00 Registration desk open Book display BFE membership desk Participants' table @ Deller Hall in Senate House	enate House
(mo	Court Room	Room G22	Room 103	Room 104
Session 2 / I 09:00-11:00	Panel 9: Generation and Rules Chair: Daniel Goldberg	Panel 10 : Dance & the Body Chair: Nick Gray	Panel 11: Meaning, Semiosis, & Ethnography Chair: Nicholas Cook	Panel 12: Communities, Identity & Style Chair: Andrew Killick
00:60	Recursion in Indian Music: Towards a Grammar of Alāp Richard Widdess, Martin Rohrmeier	Hearing the Mbira dzaVaNdau Tony Perman	Analysing Meaning: An Ethnomusicological Perspective Elizabeth Tolbert	The Making of "National Opera": Nationalization of Peking Opera as Identity Building Pui Lun Chan
09:30	Between Formality and Informality: How Far Can Generative Theories of Music Analysis Be Applied to Hindustani Classical Performance? David Clarke	Tango, Salsa and the Performance of Class and Passion in Singapore Shzr Ee Tan	When Bina Gets His Rage On: Semiotics in Aural Disorientation in Ladrang Bina Kurdha Pélog Barang Maho A. Ishiguro	"We are Pentecostal; we are Evangelical; we are an AIC": Musical Indices of Group Identity and Belonging in an African Immigrant Church Rebecca Uberoi
10:00	Rule-Based Metre Induction in the Syllabic (Heirmologikon) Style of Modern Greek Church Chant Panayotis Mavromatis	Put the Fire Out - An Integrated Analysis of Rhythm, Lyrics and Dance Moves in Angolan kuduro Stefanie Alisch	"The Lanang Drum is the Bus Driver": How Ethnography Informs Analysis in a Study of Balinese Kendang Arja Leslie Tilley	"Reach One, Teach One from My 'Hood to Your 'Hood": Towards a Global Model for HipHop Pedagogy Mehryar Golestani
10:30	Discussion	Analysing Transylvanian Music by using Motion Capture Fillipo Bonini Baraldi	Discussion	Mapping Musical Style and Migration Networks Hana Webster-Kogen
11:00-11:30		TEA / COFFEE @ Del	/ COFFEE @ Deller Hall in Senate House	
Session 2 / II 11:30-13:30	Panel 13: Metaphor & Imagery Chair: Keith Howard	Panel 14: Grooves & Kinesis Chair: Chris Stover	Panel 15 : Analysis & Power Chair: Chloë Alaghband -Zadeh	Panel 16: Cross-Cultural Outlooks Chair: Richard Cohn
11:30	Malandros and Otários: The Use of Samba in Tropa de Elite and Tropa de Elite: O Inimigo Agora É Outro Hans Hess	Playing Cuban Piano Tumbao: Navigating Ethnographical and Analytical Perspectives to Inform Performance Practice and Process Hannah Marie Bates	Counterdisciplines in Electroacoustic Improvisation Patrick Valiquet	Pairs of Interval Classes in Southeast Asian Tunings Jay Rahn
12:00	The Concept of "Tenunan" [Weave]: A Study of Compositional Strategies Used in "Tenunan II" by Tazul Izan TAJUDDIN (b. 1969) Peck Jin Gan	Musical Traces of the Holy Spirit: Identifying Linear Progression within Cyclic Form in an African- American Folk Spiritual Julia Ulehla	Meta-Analysis of a Genre: jiangnan sizhu and its Analysts Ruard Absaroka	Polyrhythms: A Mathematical Offering Karolos S. Berahas
12:30	Analyzing Qin Music and Its Taoist Aesthetic Meanings: A Study of Qin's Stiding Inflections Chiung-Hui Hwang	Cognitive, Affective and Embodied Responses to Syncopation: A Cross-Cultural Comparison of West African and North American Non-Musicians Maria A. G. Witek, Jingyi Liu, John Kuubeterzie, Senyo Adzei, Appiah P. Yankyera, Morten L. Kringelbach, Peter Vuust	Deep Syncopation in Hindustani Tabla Drumming Fernando Benadon **Moved from Panel 37**	Brazilian Capoeirista and Thai Sarama: Ritual and Form in the Musical Accompaniment of Two Seemingly Disparate Martial Arts Duncan Williams
13:00		Discussion		Discussion
13:30-15:00		LUNCH @ <i>Deller Hall</i> Musi	Deller Hall Musical Performances @ Room G22	

DAY 2 Wednesday 2 nd July				
	Court Room	Room G22	Room 103	Room 104
Session 2 / III 15:00-17:00	Panel 17: Reduction & Grammar Chair: Kalin Kirilov	Panel 18 : Improvisation & Creativity Chair: Ruard Absaroka	Panel 19: General Outlooks Chair: Maho Ishiguro	Panel 20 : Cross-Cultural Cognition & Embodiment Chair: Richard Widdess
15:00	All Things Being Equal: The Problem of Reduction in Second Practice Jazz Ben Geyer	Analysing Clave Feel within Melodic-Rhythmic "mambo" Improvisation Sue Miller	Materialities of Musical Analysis Andrew McGraw	Cross-Cultural Music Perception Tom Fritz
15:30	A Grammatical Isomorphism between Western Tonal and North Indian Classical Music Somangshu Mukherji	Modes, Improvisation and the Search for an éthnik- jazz Aesthetic in Greece Ioannis Tsioulakis	Is Music an Adaptation or a Technology? Ethnomusicological Perspectives from an Analysis of Chinese Shuochang Francesca R. Sborgi Lawson	Re-Imagining Dyslexia Through the Sensory and Perceptual Systems of Three Xylophone Cultures Robbie Campbell
16:00	Musical Gesture, 'Shi' and Propensity in Contemporary Chinese Composition Nancy Rao	From Local to glocal: Musical Style and Society in Mallorca's Bagpiping World Cassandre Balosso-Bardin	Toward a Naïve Analysis: Transcribing Western Art Music Ethan Lustig	Analysis of the Cognition of Performance in Playing the Afghan Rubab John Baily
16:30	Discussion	Between Originality and Repetition: Displays of Ingenuity in North Indian Classical Music Chloë Alaghband-Zadeh	Discussion	Imagining and Imaging the Sacred World of the Deer Singers (Northwest Mexico) Helena Simonett
17:00-18:00		JUICE & Musi @ Bru	JUICE & Musical Performances @ Brunei Suite	
18:00-19:00		KEYNOTE II: Music Analysis and Ethnomusicology Chair: Amanda Villepastour @ S	KEYNOTE II: Martin Clayton sic Analysis and Ethnomusicology: Some Reflections on Rhythmic Theory Chair: Amanda Villepastour $\mid @SOAS$ Brunei Gallery Lecture Theatre	
19:00-22:00		DIN	DINNER	

DAY 3 Thursday	10:00-15:00	10:00-15:00 Registration desk open Book display BFE membership desk Participants' table @ Deller Hall in Senate House	oership desk Participants' table @ Deller Hall in .	senate House
3 rd July		-	•	
	Court Room	Room G22	Room 103	Room 104
Session 3 / I 09:00-11:00	Panel 21 : Technology Chair: Laudan Nooshin	Panel 22 : Composition, Variation, Improvisation Chair: Panayotis Mavromatis	Panel 23: Special Session on Meter in Malian Music: Theoretical, Analytical, & Perceptual Perspectives Chair: Justin London	
00:60	We're all Cosmopolitan Now? The Effects of Technology in Rural West Africa Trevor Wiggins	Thoughts on Music as a Creative Process: Revisiting Nettl's Continuum of Improvised Music Gabriel Solis	Swinging Together: Towards a Comparative Concept of Swing-Based Meters in African(-American) Musics Rainer Polak	
06:30	Leekspin's Erotic Journey from Helsinki to Tokyo: Music Appropriation in the Digital Age Andrew Terwilliger	Tēr-mallāri: Analysing a Musical Form in a Śaiva Temple Ritual Context William Tallotte	Perception of Metric Timing Patterns in Malian Jembe-Music Hans Neuhoff, Rainer Polak, Timo Fischinger	
10:00	E-launedda, a Device for the Analysis of Music and Gesture in launeddas Music Marco Lutzu & Paolo Bravi	Indian Classical Music: From Strict Composition to Free Improvisation Julien Debove	Non-Isochronous Meters in Theory and Cross- Cultural Practice Justin London	
10:30	Atomic Analysis and Andean Aesthetics: Dialoguing with Ethnomusicology? Henry Stobart	Discussion	Discussion	
11:00-11:30		TEA / COFFEE @ Del	/ COFFEE @ Deller Hall in Senate House	
Session 3 / II 11:30-13:30	Panel 24: Spectral Analysis Chair: Michael Tenzer	Panel 25: Connected musical and literary analysis: re-sounding the vocal traditions of the colonial Indian Ocean Chair: Julia Byl	Panel 26 : SMA Session on Traversing Disciplinary & Geographic Continuums Chair: Shay Loya	Panel 27: Style, Taste and Aesthetics Chair: Henry Stobart
11:30	Vocal Production in the World's Music Cultures Polina Proutskova, Geraint Wiggins, Christophe Rhodes, Tim Crawford	The Music in the Text: North Indian Song Collections in the Early-Modern Indian Ocean Katherine Butler Schoffeld	Schenkerian Analysis and the Transcultural Harmony of Hungarian Verbunkos Shay Loya	Ambivalent Pitch: Characterising Mizo Pentatonicism Joanna Heath
12:00	Spectral Sets, Classes and Morphologies in Tuvan Khoomei Lawrence Shuster	Beguiling Voices: Rediscovering the Sound of Nineteenth-Century Malay literature Jenny McCallum	"Mixed Metre"' in Theory and Practice Mark Gotham	Is There a Northumbrian Pipe Tune Style? Analysis from Specific to General Andrew Killick
12:30	Guembri Motives in Gnawa Music: The Nuance of Repetition Maisie Sum	"Hide and Sikh", and other Avful Puns: European Amateur Dramatics and Music Making across the Bay of Bengal David Lunn	Applying the Generative Theory of Tonal Music to World Music Idioms: An Analytical Approach to the Polyphonic Singing of Epirus Costas Tsougras	Refining the Tradition: Traditional Male Singing Groups in Modem Korea Sung-Hee Park
13:00	Discussion	Proliferating Books and Pruning Culture: the Analysis of Hindustani Music in Colonial Bengal Richard David Williams	Discussion	
13:30-15:00		LUNCH @ Deller Hall Musi	Deller Hall Musical Performances @ Room G22	

DAY 3 Thursday 3rd July				
	Court Room	Room G22	Room 103	Room 104
Session 3 / III 15:00-17:00	Panel 28: Cross-Cultural Cognition and Evolution Chair: Martin Clayton	Panel 29 : Regional Comparisons Chair: Grant Sawatzky	Panel 30 : Structure & Meaning Chair: Katherine Butler Schoffeld	Panel 31: Continuity & Change Chair: Rainer Polak
15:00	Music, Participation and Interaction Ian Cross	Form and Counterpoint in a Duet Genre from Tanjung Bunga Indonesia, Flores, Western Lamaholot Dana Rappoport	Pattern and Antipattern Discovery in Ethiopian Bagana Songs Stephanie Weisser	Harmony in Bulgarian Music: Village Style Accompaniment from the 1920s to the 1990s Kalin Kirilov
15:30	The Other Leading Note: Findings From a Comparative Analysis of the Flat Supertonic Sarha Moore	Divergent Forms of "the Same" Melody in the Duet-Singing of Fataluku-Speakers (East Timor) Philip Yampolsky	Full Moon Musicking: Sounding Out the Concept of Emergence Friedlind Riedel	Authenticity and Innovation: Analysing Tunisian 'ūd Improvisation Salvatore Morra
16:00	Linear Polymeter: the Notion of Compound Metrical Directionality in African and Neo-African Musical Traditions Bertram Lehmann	Innovation and Tradition-Making: Comparative Analysis of Three Song Corpora from the Daly Region, Northwest Australia Linda Barwick	Self-Exoticisation and Identity Negotiation in Mainstream Hebrew Music Mili Leitner	Music From the Margins: (Re)marking Gorkha Identity in Darjeeling Music Festivals at India's Borderlands Angsumala Tamang
16:30		Discussion	"ÓNŮ-ÒKWÀ" (Song Bird) – Tone, Time and Structure Emmanuel Nnamani	Discussion
17:00-18:00		JUICE & Musi @ Brun	JUICE & Musical Performances @ Brunei Suite	
18:00-19:00		KEYNOTE III: Re-Imagining Difference: Musical And Chair: John Baily @ SOAS I	KEYNOTE III: Laudan Nooshin Re-Imagining Difference: Musical Analysis, Alterity and the Creative Process Chair: John Baily © SOAS Brunei Gallery Lecture Theatre	
19:00-22:00		DIN	DINNER	

Session 4 / I Panel 32 : Language 09:00-11:00 Chair: Martin Orwin 09:00 The Emotional Voice - i from a Cognitive-Psych Disa Sauter "Catching It": Percept Expectancies in Amharx Katell Morand for Co-Music Manual C	ellor's Hall & Music	Room G22 Round A Ground A Ground A Ground A Ground A Ground B A Gr	Room 103	Room 104
,	Chancellor's Hall guage & Music	Room G22	Room 103	Doom 104
•	guage & Music	Donal 22 . Tommonal A smoote of Dage 6.		MUUIII IVT
•	JIWII	ranet 35 : reinporat Aspects of Raga & Makam Chair: Leslie Tilley	Panel 34: Contours & Motives Chair: Lawrence Shuster	
	The Emotional Voice - Nonverbal Communication from a Cognitive-Psychological Perspective Disa Sauter	Never Losing One's Way: Structure, Pacing and Proportion in North Indian Alāp John Napier	Reshaping the Paradigm: Pitch Contour and Melodic Variation Principles in an Aka Polyphonic Song Rob Schultz	
	"Catching It". Perception, Emotions and Expectancies in Amhara Sung Poetry Katell Morand	A Computational Approach to Representing Melodic Progression (Seyir) for Turkish Makam Music Barış Bozkurt, M. Kemal Karaosmanoğlu, Nilgun Doğrusöz Dişiaçık	A New Tool for the Analysis of Lute Melodies Frédéric Léotar	
Music Lesson? Gina Fatone	The "Thought-Language-Hand Link": Implications for Co-Music Manual Gesture in the Instrumental Music Lesson? Gina Fatone	Structures of Rhythm in Mevlevi Music: A Cyclical Analysis Model Ozan Baysal, Sirin Karadeniz	The Physical Geography of Pan: Gesture, Embodiment, and Performance Jane Clendiming	
10:30		Discussion	Discussion	
11:00-11:30		TEA / COFFEE @ Grand Lobby outside	TEA / COFFEE @ Grand Lobby outside CHANCELLOR's HALL in Senate House	
Session 4 / II Panel 35 : Metre & 11:30-13:30 Chair: Rob Schultz	Panel 35 : Metre & Free Rhythm Chair: Rob Schultz	Panel 36: Interaction Chair: David Hughes	Panel 37 : Alternative Approaches Chair: Nancy Rao	Panel 38: Pitch, Speech, & Kinesis Chair: Rachel Hall
11:30 The Theory of Intonation Analysing Free Rhythm Svetlana Chashchina	The Theory of Intonation Rhythm: Methodology for Analysing Free Rhythm Svetlana Chashchina	Prachan: Music, Competition, and Conceptual Fighting in Thai Culture Great Lekakul	A Kinetic Approach to Music Analysis: Coarticulation in South Indian Raga Performance Lara Pearson	"Beyond Semantics": Continuities and Discontinuities in Maskandi Song and Izibongo Thomas Pooley
12:00 "V'imru: Amen": Vocal Rhyth Congregational Jewish Ritual Rosa Abrahams	"V'imru: Amen": Vocal Rhythm in Solo and Congregational Jewish Ritual Rosa Abrahams	Ethno-World: World Music in Practice? An Ethnomusicological Study Elise Gayraud	A Dynamic Analysis of the Somali Gabay Luuq Martin Orwin	Tone-tune Relationships and Indigenous Musical Theory in Kam Song from Southwestern China: Research Techniques and Approaches Catherine Ingram
12:30 Bangkakaw: Rhythm of the H Mercibelle Barroso-Abejuela	Bangkakaw: Rhythm of the Highlands of Mindanao Mercibelle Barroso-Abejuela	Bringing the Music out, Bringing the Listener in: Analysing the Role of the Male Chorus Role in Javanese Gamelan Jonathan Roberts	Deep Syncopation in Hindustani Tabla Drumming Fernando Benadon **Moved to Panel 15**	Memorizing the Repertoire and the Musical Gesture with the Same Learning Process Marie-France Mifune
13:00 Discussion			Discussion	Discussion
13:30-15:00	LUNCH @ Grand Lobby outs & Musical Performs	LUNCH @ Grand Lobby outside CHANCELLOR's HALL & Musical Performances @ Room G22	BFE @ CHANCE	BFE AGM @ CHANCELLOR'S HALL
Session 4 / III 15:00-17:00		PLE) What happens when they meet? Reflections with contributions from Martin S Chair: Rachel Harris @	PLENARY What happens when they meet? Reflections on Analysis, Cognition and Ethnomusicology with contributions from Martin Stokes, Richard Cohn, and Ian Cross Chair: Rachel Harris @ CHANCELLOR'S HALL	
17:00-18:00		JUICE & Musical Performan	JUICE & Musical Performances @ CHANCELLOR'S HALL	
18:00-20:00		A HONER BRINGS	CONFERENCE PARTY & OPEN MIC	
20:00-23:00		@ SOAS	© SOAS BAR & JCR	

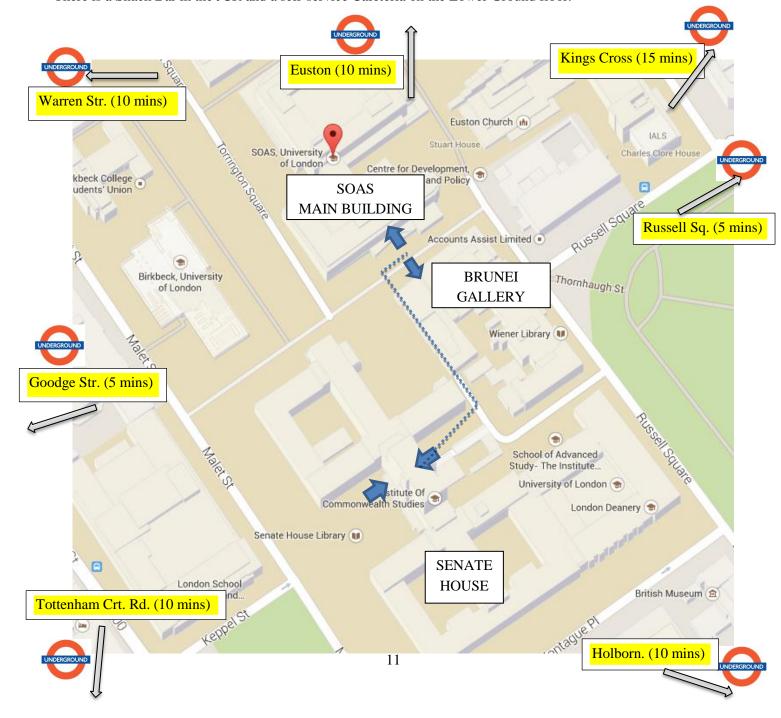
ROOM LOCATIONS

The conference is hosted jointly by SOAS (Thornhaugh Street, Russell Square, London WC1H 0XG) and the IMR (Malet Street, London WC1E 7HU) and is split between three adjacent buildings: the SOAS main building, the Brunei Gallery (also part of SOAS) and Senate House (home of the IMR). Once in the correct building, follow signs to each of the conference rooms. Arrows on the map below show building entrances and the shortest walking route from Senate House to SOAS (dotted).

In SENATE HOUSE we are using the **Deller Hall** (Basement), **G22** (Ground floor), the **Court Room**, **103**, **104** and the **Chancellor's Hall** (all on Floor 1).

In the BRUNEI GALLERY we are using the **Brunei Suite** (Ground floor) and the **Brunei Gallery Lecture Theatre** (BGLT) (Lower Ground).

The **SOAS bar** (Lower Ground) and the **SOAS JCR** (Ground floor) are located in the SOAS MAIN BUILDING. There is a Snack Bar in the JCR and a self-service Cafeteria on the Lower Ground floor.



ABSTRACTS

Keynote Addresses

Music analysis and ethnomusicology: some reflections on rhythmic theory **Martin Clayton** (Durham University, UK)

If these are interesting times for the relationship between ethnomusicology and music analysis, then this is particularly true in the area of rhythmic and metrical theory. On the one hand, time seems to be more amenable than many other dimensions of music to cross-cultural comparison; indeed, recent work in the (traditionally Western-art-music focused) discipline of 'music theory' develops a set of concepts that appear to be generalizable across a wide array of musical traditions. At the same time, ethnomusicology's history of theorising rhythm, especially in Africa, has acted as a lightning rod for heated criticism of the discipline. Ethnomusicology's relationship to rhythmic theory appears to be at the same time full of potential and deeply problematic.

In this paper I will reflect on some of the issues raised by theorising and analysing musical time cross-culturally, both now and in the past. What principles allow us to continue to develop general theories of rhythm and metre, and what – apart from reflecting on the enormous diversity of musical practice and theory around the world – does a historically self-aware ethnomusicology have to offer that project?

Music, identity, and the clever boy from Croydon Nicholas Cook (University of Cambridge, UK)

Samuel Coleridge-Taylor (1875-1912)—in Elgar's equivocal term the 'clever boy' from Croydon—was discovered by the Royal College of Music set at an early age, and his *Hiawatha's Wedding Feast*, completed when the composer was 23, was one of the great commercial successes of its time. (It was also a scandalous example of the exploitative contracts that have remained commonplace in the music business.) It was as a result of his success and ensuing visits to the United States, and in particular his encounter with William Grant Still and reading of the works of W. E. B. Dubois, that Coleridge-Taylor began to problematize his African ethnicity, coming to think of himself as someone whose identity was caught between two cultures. The focus of this case study is the relationship between this purposeful transformation of Coleridge-Taylor's self-identity and his development as a composer.

Re-imagining difference: musical analysis, alterity and the creative process Laudan Nooshin (City University, London)

This keynote address will explore various themes and issues arising from my work with Iranian classical musicians, particularly in relation to questions of alterity – how 'sameness' and 'difference' are understood in relation to musical creativity. For example, what would an approach to creative practice in Iranian classical music that went beyond the arguably unhelpful improvisation/composition dualism look like? Is there a place beyond alterity, or is our understanding of the world inexorably tied to such structural binaries? As well as discussing a case study, I will engage broader questions concerning musicological paradigms, particularly where these have been mobilised as a marker of 'otherness', as in the case of (western) musicological discourses of creativity or in Iran where some scholars have drawn on notions of difference to distinguish a local 'indigenous' musicology from an externally-imposed (Euro-American) 'imperialist' musicology. I examine the implications of such paradigms for the analysis and understanding of musical creativity.

Paper Presentations

"V'imru: Amen": vocal rhythm in solo and congregational Jewish ritual chant Rosa Abrahams (Northwestern University, USA). [Panel 35]

Contemporary Jewish Reform tradition in North America focuses on engaging the congregation to pray as "one" – requiring some regularity in *nusach* (liturgical chant) for congregational responses in prayer (Slobin 2002; Friedmann 2012). In this paper I will examine the ways in which traditionally unmetered nusach becomes rhythmicized in Reform Shabbat services, and the manner in which rhythmicity is created by the Cantor in order to engage, or dis-engage, the congregation. I posit that cantors use certain micro-timing strategies to achieve a sense of "groove" while singing with the congregation, and other participatory discrepancies (Keil 1987) during solo nusach. To examine these strategies of delineation, I investigate instances of responsorial singing in several prayers chanted during a typical Reform Shabbat evening service. Rhythm in Jewish liturgical music is based primarily on text. The emphasis and syllabic stress of certain texts provides a basis for *hazzanut* (cantorial improvisation) as well as *davening* (bodily synchronization). In my analysis, I draw from fieldwork recordings of prayers by cantors and cantorial soloists in the North American Reform movement. In comparing these, it is evident that cantors use a multitude of vocal strategies to guide the congregation, express the liturgy, and shape synagogue worship.

Meta-analysis of a genre: jiangnan sizhu and its analysts Ruard Absaroka (SOAS, University of London, UK). [Panel 15]

Jiangnan sizhu is increasingly seen as representative (both nationally, and transnationally - in its influence on diasporic Chinese orchestras and ethnomusicology department music ensembles) of Chinese folk music in general. A slowly growing body of music-analytical scholarship, within and outside China, continues to buttress an ongoing Bhabha-esque "reinscription" and canonization (Lau, 1998) of the genre. In this paper I examine some of the implications of this analytical attention. What do practitioners of the music, on encountering the analysis, make of it? How can analysis help performers or trained audience members? Answers go to the heart of how we are culturally attuned to certain kinds of musical listening. The intellectual labour of analysis is by no means neutral, but always potentially appropriative and must be seen against other trends within knowledge production (Vukovich, 2010). In a form of musical Heisenberg principle, how does analysis alter the analysed? One obvious side-effect may be the privileging of notation such that what was oral, mnemonic or skeletal becomes written and increasingly complex; the descriptive becomes de facto prescriptive. Recent applications of processing theory (such as Roeder, 2010) provide fascinating insights into the melodic complexity of the genre, but also raise questions concerning transmission in the original settings. How does analysis still struggle to account for the subtleties of collective performance practice in which improvised ornamentation, gentle give-and-take and tacit understanding between the musicians, rather than linear progression, are lauded as the aesthetic ideals. The disciplinary and institutional power differentials within music scholarship itself remain pertinent. The legacy of a dominant focus within historical musicology on sound and content over context remains potent within China, and also explains why Ethnomusicologists have sometimes shied away from some forms of music analysis, or identified other priorities.

Between originality and repetition: displays of ingenuity in North Indian classical music Chloë Alaghband-Zadeh (University of Cambridge, UK). [Panel 18]

Musicians and listeners of North Indian classical music attach great importance to the principle of finding novelty within pre-existing limitations. This influences musicians' conceptions of $r\bar{a}g$: despite the melodic restrictions it entails, most musicians talk expansively of $r\bar{a}g$, as something within which they can spend a lifetime discovering new elements. The same principle informs transmission: as John Napier (2006) has shown, musicians are expected

in performance both to demonstrate creativity and also, paradoxically, not to deviate from the styles of their teachers. He suggests that they balance these demands through "subtle variation", performing inherited compositions in only subtly new ways. In this paper, I argue that the principle of finding something new within something familiar is central to the aesthetics of North Indian classical music and that it accounts for many of its fundamental structural and stylistic features. Based on an analysis of recorded performances, I highlight certain widespread improvisatory processes, which musicians use to foreground their ingenuity in varying musical material. In doing so, they display their genius not in the creation of new music, but rather in showing novel aspects of something that already exists. Taking variation (rather than, say, large-scale form) as the starting point for musical analysis in this context has significant advantages. It reflects the priorities of both musicians and connoisseurs; it also helps to account for the large amount of repeated musical material that performers employ, without casting such material as unimaginative.

The Night of the Singing Balconies: organised anarchy in East Berlin Phil Alexander (SOAS, University of London, UK). [Panel 2]

On a chilly November evening this year in the eastern Berlin district of Friedrichshain, several hundred people gathered under thirty-six different balconies to hear friends, family and neighbours sing, play and recite poetry. Almost all the performers were amateur, their material included Puccini, rap and Russian folk song, and audiences cheerfully blocked streets, playgrounds and courtyards to listen, applaud and frequently join in. Although possessing an appearance of spontaneity, the evening was meticulously planned and executed, the result of meetings, coordinated social media campaigns and extensive fly-postering. What was unpredictable was the warmth of audience response and fleetingly-grasped communality that the night engendered, spontaneous singalongs and small streetside parties becoming as much a feature of the proceedings as the performances taking place overhead. Part of a neighbourhood initiative which also includes speed-host cookery evenings along with more standard fare such as babysitting swaps and book clubs, the Night of the Singing Balconies taps into several contemporary Berlinesque themes: the triumph of enthusiasm over professionalism, an encouragingly tolerant audience, the ubiquity of the Berlin balcony and a thriving improvised street culture which is a daily part of Friedrichshain life. My paper, therefore, analyses this very local event as one articulation of the city's wider musical experience. Through interviews, footage and personal recollection, I will explore exactly what sort of temporary community was created on this one night, and how it might fit into a broader theoretical concept of occasional and coincidental urban musical groupings.

"Put the fire out" – an integrated analysis of rhythm, lyrics and dance moves in Angolan kuduro

Stefanie Alisch (Bayreuth University, Germany). [Panel 10]

Kuduro is electronic dance music from Angola. DJs produce kuduro's aggresively percussive beats with a tempo around 140 BPM in small home studios. Kuduro's rapid lyrics are delivered on the verge of shouting and laud the performers' skills and success as well as functioning as social commentary. Kuduro songs are inextricably linked with dance moves called *toques*. Usually, a *toque* bears the same name as the kuduro song it accompanies and strongly references Angolan quotedian culture. The success of a kuduro song depends on the *toque's* being danced by a broad audience. In 2011 female kuduro star Noite Dia lands the hit *Olha fogareiro - Apaga Fogo* ("Look at the BBQ grill - Put the fire out"), sung in duet with male star kudurista Puto Lilas. In the dance move *Apaga fogo* one foot taps rapidly as if putting a fire out while a hand fans the crotch. The *toque* is highly popular and at the same time criticised for being too sensual. While Noite Dia insists that the only reference here is a BBQ grill, the duet hinges on the double entendre of "putting the fire out" meaning "to satisfy desire". Double entendres (Pinto 1991) that use innocent expressions to convey a censored subtext and wordplay have been described in popular

music of the Portuguese language as ludic strategies to create "revealing paradoxons" (Cecchetto). Several scholars (i.a. Bender 2002, Danielsen 2010, Gilroy 1993) point out the importance of including bodily-performative practices into music analysis. In the integrated analysis of *Apaga Fogo* I explore how the interplay of rhythms, lyrics and dance produces "perceptual rivalry" (Pressing 2002) and thus complex and contradictory musical meaning.

Analysis of the cognition of performance in playing the Afghan rubab **John Baily** (Goldsmiths University of London, UK). [Panel 20]

By "the cognition of performance" I refer to how the performer mentally represents the task performed, and how that representation is utilized in the process of performance (Baily 1992:148). Learning to perform as a research method in ethnomusicology invites the practitioner to explore these issues, especially spatial thinking and active movements in the spatially structured environment provided by the morphology of an instrument. A special aspect of lutes, plucked and bowed, is the generative interaction between the left and right hands. Analysis of the performance of classical raga based compositions on the Afghan rubab shows the interaction between the two hands in very interesting ways. The present short paper will concentrate on the right hand movement grammar underlying the subtle rhythmic variations that characterise Afghan minimalism. A seemingly simple set of rules controlling the ways in which down strokes and upstrokes on the three melody strings, and strokes on the high drone string, can be sequenced has been identified, and for the analyst who understands the rules, the grammar can be deliberately utilised in rubab performance. But is this how Afghan rubab players themselves strategise their performances? Video footage of two outstanding musicians, Ustad Rahim Khushnawaz and Homayun Sakhi, will be presented to illustrate two contrasting approaches to this issue, the intuitive and the analytical.

From local to glocal: musical style and society in Mallorca's bagpiping world Cassandre Balosso-Bardin (SOAS, University of London, UK). [Panel 18]

The interdisciplinarity of ethnomusicology allows us to contextualise musical analysis within an ever-shifting social context. By taking into consideration the temporal aspect of musical change in relation to the society that produces it, we can better understand the symbiotic relationship between musical performance style and culture. Through a case study of Mallorcan music, I will illustrate how the variation of musical styles over the last forty years is representative of the changes in its society. In the 1970s, recordings and testimonies show that Mallorcan bagpiping styles were locally defined. For example, musicians from one village played the repertoire with a dotted rhythm, the next village played only crotchets. The revival, initiated by young men from the city, smoothed out these styles as the newcomers consciously decided to "take the best of everything" and create their own way of playing. As these revivalists were the main transmitters of knowledge to the following generation, theirs was the unified style that was adopted and used throughout the island. Today, style can also indicate a player's individual musical taste within a global soundscape. The master/student transmission of specific stylistic elements, such as in the sanshin gestures described by Matt Gillan (2012), still exists amongst students who follow the revivalist unified style. Certain musicians, however, have adopted stylistic traits originating beyond their national borders (Ireland, Galicia). Their chosen aesthetics reflect the shift from a local and rural society to the recognition of a 'glocal' musical world, where the local and the global are constantly interwoven.

Bangkakaw: rhythm of the highlands of Mindanao Mercibelle Barroso-Abejuela (Bukidnon State University, Malaybalay City, Philippines). [Panel 35]

This paper analyses the rhythm produced by the *bangkakaw* – an instrument composed of a log and striking sticks and common to the Manobo of San Fernando, Bukidnon - along its course when people join the initial group pounding it. Considering that there is no immediately observable pattern when the *bangkakaw* is played, this paper uncovers the basic pattern, and the common pattern that overlays each pattern. It determines whether the basic pattern is stationary and repetitive throughout or the patterns are produced by imitation and succession. This paper ascertains whether other factors produce a pattern: for example, the foot and arm activities while pounding the log, or the hand, eye and verbal signals that would coordinate the players to begin and end a particular pattern. It also determines the length of time each pattern is played, if it measured by the number of repetitions or by the instinct of the leader. Lastly, this paper reveals the type of meter the *bangkakaw* follows, whether it conforms to meter in western music or is in a pure, free meter.

Innovation and tradition-making: comparative analysis of three song corpora from the Daly region, Northwest Australia

Linda Barwick (University of Sydney, Australia). [Panel 29]

This presentation adopts the framework proposed by Savage and Brown (2013) to investigate three corpora of public dance-song from the Daly region in northwestern Australia, particularly addressing their call for undertaking comparative analyses on a regional level. The corpora in question are djanba (Barwick et al., 2010), Walakandha wangga (Marett, Barwick & Ford, 2013; Marett 2005) and Muyil lirrga (Barwick, 2006; Ford, 2006). While various features of the corpora have been compared in previous publications (e.g. in Barwick, 2011; Marett, 2005; Marett, Barwick & Ford, 2013; Barwick, forthcoming), this will be the first systematic cross-corpus comparison of musical features. These corpora are good candidates for a regional comparative analysis, having been composed during the same period (1960s-1980s) within a common ceremonial framework by different ethno-linguistic groups within the region, each corpus being of the optimum sample size advocated by Savage & Brown (30-100 songs) and songs across the three corpora being used for dance and of comparable complexity and duration (1-3 minutes). Furthermore, to aid in investigation of any relevant historical and cultural factors, we have very good contextual metadata from the composers and their communities to establish the author and timeframe of composition of each song, and multiple recordings of ceremonial events over the past 50 years documenting the sequencing and admixture of individual songs and the corpora within the ceremonies. The case study also presents some interesting challenges: composition of the relevant songs was undertaken in a climate of conscious innovation in ceremonial relationships between the three groups. Composers strove for group differentiation at the same time as forging a new shared tradition of ceremonial inter-relatedness. Both vertical and horizontal transmission within the region, extra-regional influence, polygenesis and schismogenesis—or 'variegation' to use linguist Nick Evans' term for the 'conscious fostering of linguistic and cultural diversity' (Evans, 2010; Hiscock 2013)—have all come into play in generation and development of the currently relatively stable clusters of musical features displayed by the three corpora. The presentation will invite discussion of the extent to which similar patterns of musical change emerge from other regional comparative analyses.

Playing Cuban piano tumbao: navigating ethnographical and analytical perspectives to inform performance practice and process

Hannah Bates (SOAS, University of London, UK). [Panel 14]

During my practice-based research into popular Cuban piano playing, at times I struggled not only to emulate the "Cuban" sound, but also to obtain direct guidance as to how to develop this idiomatic sound. It appeared there were

elements in the transmission of performance style that were tacitly understood and reproduced from an emic perspective. This raised the following questions: What constitutes a "Cuban" approach to pianistic groove playing? How can these elements be learned from an etic perspective when they are emically transmitted tacitly? In my paper I seek to elucidate how these questions can be answered through a combined-research approach where ethnography and musical analysis intersect through data acquired from transcription, audio analysis, formal interviews and participant observation. Giving particular attention to pianistic vocabulary, grammar and articulation, I will demonstrate how a combined research approach was essential to advancement of acquired playing skills and how the convergence of analytical and intuitive playing practices contributes to the development of a model for pianistic groove practice and process.

Structures of rhythm in Mevlevi music: a cyclical analysis model

Ozan Baysal (Istanbul Technical University Turkish Music Conservatory, Istanbul, Turkey) and **Sirin Karadeniz** (Halic University Conservatory, Istanbul, Turkey). [Panel 33]

In the present talk we will propose a cyclical model for analysing the interactions among various rhythmic layers in Mevlevi music. Three main layers are considered: (1) the sung text that is based on poetic meters (*aruz*), (2) the rhythmic cycles (*usul*), and (3) the melodic line that is based on the particular modal formulae of the related makam (*seyir*). The model is based on an updated version of the circular representations of the rhythmic cycles in the old treatises. The poetic patterns and melodic prolongations are displayed spirally around these reconstructed circular representations of the rhythmic cycles. These will demonstrate the tripartite relations of *aruz*, *usul* and *seyir* and how such relationships create a rhythmic activity of its own. The implications of these analyses will conclude the discussion, and future directions for the application of the present model will be outlined.

Deep syncopation in Hindustani tabla drumming Fernando Benadon (American University, USA). [Panel 37 **Moved to Panel 15**]

This presentation examines fast syncopated rhythms in Hindustani tabla solos by Tari Khan, Zakir Hussain, and others. The term 'deep syncopation' is introduced to classify rhythms whose cross-accents fall on metrical grids faster than 100ms, a threshold below which metrical subdivisions begin to lose their perceptual coherence (London 2004). This lower limit is especially robust for fast syncopated music, given the additional processing complexity introduced by out-of-phase (off-beat) accents. While most deep syncopations in tabla drumming are found at faster tempos, they can also occur at slower tempos by way of very fast subdivision values. Most examples will be drawn from *tihais*—thrice-repeated and usually polymetric (thus highly syncopated) cadential patterns that attain rhythmic concordance with the metrical downbeat (*sam*) on the pattern's final accent (Gottlieb 1993). Since a deeply syncopated onset is more likely to be heard as occurring on the beat rather than off (Keller & Repp 2005), a *tihai* containing deep syncopation maximizes metrical disorientation, thereby heightening the cadence's tension-resolution effect.

Polyrhythms - a mathematical offering Karolos S. Berahas (Georgetown University, USA). [Panel 16]

Polyrhythms are musical interpretations of sequences of natural numbers generated by dividing a finite interval of the real line into sub-intervals by two or more distinct, relatively prime natural numbers. This paper offers a mathematical approach to a sonic phenomenon encountered in nature and reflected in the music of human cultures. The main result states and proves the ordered pulse-to-pulse distances of any two-dimensional polyrhythm. Other findings include several number theoretic and combinatorial formulas for describing aspects of those rhythms (15

original theorems). All possible rhythms are shown to be sequences of extracts from polyrhythms, and, with musical examples, it is conjectured that the study of polyrhythms may be useful in elucidating some of the complicated interplay between micro and macro scale rhythmic structure. From building polyrhythmic superstructures to stringing segments of polyrhythms to form every conceivable rhythm, this paper also serves to foster an understanding of the significance of different number-theoretic parameters and show how they affect the resulting polyrhythms. This paper contributes a numerical approach that may be used effectively in polyrhythmic composition. I believe that polyrhythms will be used more and more frequently in the future, with applications extending beyond musical realms.

Analysing Transylvanian music by using motion capture

Filippo Bonini Baraldi (Centre de recherche en ethnomusicology, Paris Nanterre University and CNRS, France). [Panel 10]

Techniques based on motion capture can be useful to analyse and transcribe a foreign musical system: Transylvanian music. We invited two professional gypsy musicians (a violinist and a viola player) from a small Romanian village to the INSERM Laboratory of the University of Burgundy (France). The movements of 38 retroreflective markers placed at various anatomical locations on the body, were measured using an optolectronic device, Smart (BTS, Milan, Italy). Two musical parameters of the de meseli or de jale repertoire ("table songs" or "songs of sorrow") were the objects of study: rhythm and "swing," defined as the desynchronization between melody and harmonic-rhythmical accompaniment. These parameters are particularly apt to be studied by motion capture because they are directly related to body movements. Results showed that rhythm is a local variant of the aksak system and is based on two duration units (S=short, L=long), which respect the formula 2/3<S/L<3/4. Performances are characterized by large deviations of the S/L ratio from period to period, which have an expressive function. Deviations are related to a swinging interpretation, consisting of a voluntarily desynchronization between the performers.

A computational approach to representing melodic progression (seyir) for Turkish makam music

Barış Bozkurt (Bahçeşehir University, Istanbul), M. Kemal Karaosmanoğlu (Yıldız Technical University, Istanbul) and Nilgun Doğrusöz Dişiaçık (Istanbul Technical University, Istanbul). [Panel 33]

This study proposes a new computational analysis method and a graphical representation for studying melodic progression, seyir, for makamlar (plural of makam) in the context of Turkish makam music. Seyir is considered to be one of the most important dimensions of the makam concept. Most of the historical theoretical texts present the makam concept by describing seyir rules. While the concept of seyir has short-term and long-term facets, the most explicit information about seyir in theory books concerns the long-term dimension. Three main categories are used: ascending, ascending—descending and descending. Until the present, no computational study has presented a detailed analysis of these long-term characteristics. In this work, we present a new representation developed by gathering time-varying statistics from a group of pieces in a given makam. To obtain the representation, all melodic contours of the pieces are down-sampled to have the same size. On a single graph, the average melodic curve is plotted together with the frequency of occurrence of pitches for the whole collection. This representation shows which pitches are frequently used in which portions of time, thus providing us with an opportunity to observe how melodic contour and pitch emphasis evolve within a single collection.

Re-imagining dyslexia through the sensory and perceptual systems of three xylophone cultures

Robbie Campbell (SOAS, University of London, UK). [Panel 20]

Informed by my own experiences as a dyslexic musician, this paper aims to both compliment and broaden ongoing research into the relationships between music and Specific Learning Difficulties (SpLDs). Through an ethnomusicological study of three xylophone musicians from different cultures, music is understood as an experience of sensory and perceptual organisation, as well as a phenomenon of movement. Parallels are then sought with key dyslexia-related cognitive categories such as perceptual organisation and working memory. By combining Gestalt theory of visual perception with sensory research on cultural variance, xylophone playing is positioned as a multi-sensory experience that critically involves core relationships between visual, auditory and bodily modes. Visualisation of musical structures for mental rehearsal is shown as a common practice technique for musicians, suggesting key associations between musicians, musical instruments and perceptual systems of organisation. Music is further seen as a sensory phenomenon of movement that each individual, genre or culture may organise and adapt in myriad ways, including as an embodied process that naturally reduces strain on working memory. Musics from different cultures are understood as systems of knowledge, with dyslexia existing as a related cognitive and cultural product. By re-imagining dyslexia as a creative sensory and perceptual phenomenon that co-exists outside of western educational and literacy contexts, attitudes that position dyslexia purely as a deficit syndrome are challenged.

The making of "National Opera": nationalization of Peking opera as identity building **Pui Lun Chan** (Leiden University, Netherlands). [Panel 12]

In 2010, Peking opera was inscribed on UNESCO's Representative List of the Intangible Cultural Heritage. In the corresponding nomination document, a statement claiming Peking opera's significance as an ICH reads: "Peking opera is the most widespread and influential among over 300 opera forms in China. Hence it is also called the 'National opera'." Indeed for almost a century, Peking opera have always been portrayed as a representative of Chinese culture, a national art. I argue that it owes to an ideology of cultural nationalism shared among Chinese intellectuals in the early twentieth century, when the Republic of China needed a panacea to build its national identity. It is noteworthy that the notion of "nationalization" is crucial to Peking opera studies, as it contextualizes the long superior status of Peking opera over other Chinese genres. In this regard, this paper aims to investigate the whole process of nationalizing Peking opera in the early twentieth century. I will first discuss the above-mentioned ideology of cultural nationalism raised during the May Fourth Period in the late 1910s. Then I will discuss why Peking opera was chosen, and how the art was recoded so as to contribute to the Chinese nationalist discourse. Moreover, I will discuss how the nationalistic discourse was worked out in real practice. Pushing on Joshua Goldstein's discussion on the 1930 U.S. performing tour by star actor Mei Lan-fang (1894-1961), I argue that his 1922 Hong Kong tour was an earlier example of a realization of the discourse.

The theory of intonation rhythm: to the issue of methodology of analysis of free rhythm **Svetlana Chashchina** (Vyatka State University, Russia). [Panel 35]

The methodology of analysis of so called free rhythm continues to be a critical point in the development of musical rhythmology (both classical music analysis and ethnomusicology). In 1996 Clayton had generalized the researches devoted to the phenomenon of free rhythm in Western ethnomusicology, carried out in the second half of the twentieth century, and made a disappointing but fair conclusion of "the lack of suitable analytical techniques" (1996: 331) and "we don't know of any non-Western theories which might be similarly adaptable" (1996: 327). The purpose of this paper is to acquaint western musicological community with the theory of intonation rhythm,

developed in Russia in the second half of XIX-XX centuries and practically unknown outside Russia. The paper analyses both the way of formation of theory (in the works by Lvov, Sokalsky, Kharlap) and further prospects of its development. We suppose that this theory can be useful for the analysis of rhythmic systems, purposefully using the irregular durations. We can meet this system in different folklore traditions, in medieval music and in contemporary music, especially developing the improvisational forms.

Beat detection and computer improvisation in traditional music from Madagascar Marc Chemillier (École des Hautes Études en Sciences Sociales, France). [Panel 6]

There is a cultural dimension in the perception of beats that can be illustrated by simple cases of people outside a given cultural context misunderstanding the position of the beat in a given musical sequence. Thus it seems that positions of the beat are not completely defined in the physical audio signal, and furthermore that despite widespread hypothesis inspired by Lerdhal and Jackendoff's theory, positions of the beat are not computed in a uniform way by universal cognitive mechanisms. If one wants to go further in the investigation of the cultural dimension of beats, a simple idea is to ask people to tap to the music. This is done both by ethnomusicologists working in Arom's tradition, and by cognitivists making experiments in music perception. But it leads to the question of how to prove that people's tapping does really correspond to the beat? For instance, how to be sure that their tapping is not contrametric? These questions will be discussed and illustrated by examples that we have studied during ethnomusicological fieldwork in Madagascar. Moreover, they are also related to researches conducted in the field of improvisation with the computer. We are working on a musician-machine interaction system that learns in real time from human performers and generates improvisations in the style of these performers. The improvisation kernel is based on sequence modelling and statistical learning. It is derived from earlier works on the OMax software done at IRCAM, but the new issue addressed here is to take into account an underlying metrical structure. Thus the system must be aware of the positions of the beat. We will show examples of music generated by the system in the style of the zyther marovany from Madagascar and discuss the reactions of native people listening to these virtual improvisations, particularly from a rhythmic point of view, in situations where they are asked to play percussion instruments in synchronization with the machine.

Between formality and informality: how far can generative theories of music analysis be applied to Hindustani classical performance?

David Clarke (University of Newcastle upon Tyne, UK). [Panel 9]

As exponents of an essentially improvised practice, vocalists in the North Indian $khy\bar{a}l$ style confront in every performance the challenge of creating their material on the spot. As is well known, they do this within the twin constraints of $r\bar{a}g$ and $t\bar{a}l$; and we might hypothesise whether those constraints are generative – in the way that a linguistic generative grammar allegedly underpins human beings' ability to produce a potentially infinite number of sentences from a finite set of rules. If this were the case, then it may be worth testing the usefulness of generative models of music analysis to the Hindustani classical repertory. Here I seek to develop some of my earlier applications of Lerdahl and Jackendoff's generative theory of tonal music to North Indian $r\bar{a}g$ performance. While their methodology is paradigmatically oriented towards Western classical music, there is an opportunity here to test out their claim that their principles may have inter-cultural (even if not universal) pertinence. Yet if their model represents a formal theory, one tension that is likely to transpire in the encounter with the $khy\bar{a}l$ style lies in the latter's resistance to formality – or, more precisely, its place on a continuum between formality and formality. In this presentation I explore some of these issues through analytical case studies of $khy\bar{a}l$ performances. I seek both to use Lerdahl and Jackendoff's principles to illuminate the musical goings on, and to use the music to test how far, and with what need for modification, their methodology can be applied. I also consider their approach in

the context of recent debates about comparative musicology. Could their method be a vehicle for a comparativist approach; conversely, might this reveal some of the problematics in attempting cross-cultural comparison?

The physical geography of Pan: gesture, embodiment, and performance **Jane Piper Clendinning** (Florida State University, USA). [Panel 34]

Caribbean steel pans have a distinctive arrangement of pitches on their incurved surface: the lead tenor's pitches are customarily arranged in a circle of fifths, while each double second pan has a whole tone collection; triple guitar pans each include one of three fully-diminished seventh chords, and in a set of six basses each drum's pitches are a perfect fifth (C-G, Bb-F, etc.). These arrangements of pitches lead to a vastly different physical geography for the player: whole and half steps, immediately adjacent on a keyboard or string instrument, require a reach or movement from one pan to another, whereas "leaps" may be adjacent pitches on pans. The difference in "feel" of melodies and harmonies is particularly worthy of consideration because much of the pan repertoire is derived through transcription of music for other ensembles—soca, calypso, reggae, popular and jazz works, and even "Classical" orchestral literature. Since the traditional teaching method is by rote, the embodiment of the music plays a significant role in learning and memorization, and in musical experience and understanding. This paper explores the physical geometry in two compositions—a traditional calypso and a chromatic recent work.

You could sing your way out of pain: music and resistance at Robben Island prison Janie Cole (Music Beyond Borders). [Panel 2]

Music was a crucial force for resistance in the anti-apartheid struggle in South Africa. Drawing on unpublished archival documents and first-hand interviews with former political prisoners of Robben Island's maximum-security prison, where activists led by Nelson Mandela were imprisoned from the 1960s on, this paper examines the development of musical activities at the notorious apartheid prison and reveals how music provided a mode of critique and a strategy for undermining the white supremacist government, transcending political, linguistic and tribal differences to unite an oppressed people against a common enemy. Music was key to survival in prison life as both political and personal expression. It created a profound sense of community with the formation of choirs/bands, and organized concerts of old/new repertories (including Handel's Messiah and a setting of the Sharpeville Massacre) and singing competitions drawing on indigenous performance genres like 'isicathamiya' and 'ingoma' from the black townships. Music was also a tool to survive hard labour, where traditional Zulu migrant workers' songs expressed accounts of racial repression. Lastly, music-making allowed for social interactions between white warders and prisoners, leading to the breakdown of racial prejudices and the initiation of a process of reconciliation. Few ethnomusicological studies have focused on music during the apartheid era; no detailed research has ever been undertaken into its essential role at Robben Island. This model of cultural expression as advancing social change can serve for the broader study of music used by individuals suffering and protesting the violation of human rights under oppressive regimes.

Music, participation and interaction Ian Cross (University of Cambridge, UK). [Panel 28]

When we engage with music, we do so in culturally-appropriate ways. In recent Western cultures, listening has become privileged as *the* culturally-appropriate mode of engagement, and emotion or aesthetic experience as *the* proper forms of our response to music; these conceptions have been the foci of most scientific research into our engagement with music. Music is thus conceived of and investigated as a medium for presentation or display, reflecting or embodying abstract structures that we experience affectively or aesthetically. But in many world

cultures—including our own—music is an interactive, participatory medium that has many different social roles and cultural embeddings, and participation in music may have consequences that are not limited to the affective or aesthetic domains, I shall suggest that by conceiving of music as a primary human mode of interaction, and by situating this idea within recent research on the human capacity for complex interaction, we can develop novel and effective approaches to exploring and understanding music and its functions in human life. I shall argue that "music" is most productively construed as a communicative medium that is cognate with, and complementary to, language in the form of speech; the behaviours, sounds and concepts that we can characterise as music and as speech reflect aspects of the human communicative toolkit that are optimised for somewhat different ends. While we can think of speech as a deployment of communicative resources that can be used to change the information about states of affairs in the world shared between members of a culture, from an interactionist perspective music constitutes a deployment of similar communicative resources that can elicit the sense that each participant has the same awareness of the world and of each other. This approach can help to clarify relationships between music and language, in the form of speech; it can begin to resolve some of the implications of recent research that has shown aspects of music to have powerful effects on memory and social attitude; and its implication that music as a mode of interaction may possess humanly-generic properties provides us with new perspectives on the investigation of music beyond the bounds of western culture.

"Balochan": analysis of a desert folksong in two contemporary Rajasthani performance contexts

Morgan Davies (SOAS, University of London, UK). [Panel 5]

With its roots in the Sindh region of modern-day Pakistan, "Balochan" is a traditional folksong that survives in contemporary performance, via the professional hereditary music activities of the Langa and Manganiyar communities of Western Rajasthan. Both groups perform their own distinct versions of the song, using their own unique brand of melodic instrumentation for accompaniment – the bowed lute kamaicha for the Manganiyars, and the Sindhi sarangi for the Langas – yet the lyrics, the rhythmic context, and the underlying melodic framework of the song, all evidence fundamental similarities between the two versions in performance. This paper will present a comparative analysis of the song "Balochan", using new audio and video recordings taken from Langa and Manganiyar contemporary fieldwork contexts between October 2013 and March 2014. Particular attention will be paid to the musicians' concept of raaga, which is perhaps one of the most intriguing aspects of the Langa and Manganiyar collective musical knowledge base: the most advanced musicians from both communities demonstrate some conceptualization of raaga; however, the folk music (lok sangeet) raaga framework differs in crucial but little-understood ways, from the system expounded by shaastra sangeet musicians in the North Indian classical tradition. Using analytical methods drawn from ethnomusicology, musicology, and cognitive anthropology, this paper will show how the musicians construct their own unique interpretive versions of the song "Balochan" in performance. A comparative linguistic analysis of the lyrics will also highlight dialectical differences between the Jaisalmeri Marwari dialect of the Manganiyars, and the Jodhpuri Marwari dialect of the Langas.

Indian classical music: from strict composition to free improvisation Julien Debove (École des Hautes Études de Sciences Sociales, Paris, France). [Panel 22]

Every khayal performance of Indian classical music being unique, a comparative approach is necessary to meticulously analyse it. By comparing recordings of the Hindustani violin lessons at the Hubli-Gurukul (India, August 2012-2013) and others from Hindustani raga performances, I chose to study the way Rajam Dynasty musicians transform the structural and structuring elements of a $r\bar{a}ga$. I used several representations, technological and digital support, with other forms of notation to explain the ornamentation and cognitive processes used in a number of improvisations: all of this contributing to a global comprehension of the whole musical piece. I focused

principally on analysing $r\bar{a}ga$ Malkauns and Yaman, taught to me by Dr. N. Rajam, and also the performances of several musicians of the Rajam Dynasty (S. Khuntia, Sangeeta Shankar, and Dr Rajam). I created a theoretical model of the various structural and structuring elements in the Gayaki Ang tradition, using several kinds of software (Acousmographe, SonicVisualiser, OpenMusic). This analysis will reveal the scope of improvisation in Indian classical music, particularly the manner in which the musical elements are constituted, from strict composition to free improvisation.

The "thought-language-hand link": implications for co-music manual gesture in the instrumental music lesson?

Gina Fatone (Bates College, USA). [Panel 32]

Among cognitive linguists, there is debate about the origins of speech and the hand gesture that accompanies it. One position about the relationship between these two "unlike semiotic modes" (one static and conventional, the other imagistic and idiosyncratic) is that they are inseparable, forming an imagery-language dialectic that functions as a single expressive unit (Goldin-Meadow 2003, Kendon 2004, McNeill 2005, 2012). In his recent book How Language Began: Gesture and Speech in Human Evolution (2012), psycholinguist David McNeill theorizes that speech and gesture co-evolved via an adaption he calls Mead's Loop: a "twisting" of mirror neurons that allowed one to experience her or his own gestures as if they were coming from someone else. As posited by McNeill, a "thought-language-hand" link resulted from this adaptation, bringing the imagery and social meaning of one's own gestures into the same area of the brain that orchestrates speaking and gesturing, creating a "speech-gesture unity" that was naturally selected. In this paper, drawing on a cross-instrument set of video illustrations from multiple traditions, I suggest that in the context of face-to-face musical transmission we find not only evidence of thought-language-hand synchrony, but that a thought-music-hand unity comes into relief. My larger aims are to 1) locate specialized actions of musical transmission within a more generalized human "utterance system" as elaborated by cognitive linguists, and 2) promote further consideration of what a thought-music-hand link may tell us about teacher actions and the multi-lectic of musical experience.

Cross-cultural music perception

Thomas Fritz (Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany). [Panel 20]

A combination of psychology and ethnology has a great potential to unveil mechanisms of the human mind during music perception, and possibly allows for a better understanding of biological foundations of the development of music. However, combining methodologies from both fields is a challenge, partly because researchers from both fields have a long lasting history of misunderstanding the terminology of the other. After an effort to take up earlier efforts for reconciliation between the fields, data is presented that allows for a discussion of cross-cultural perception of aspects of meaning in music, as well as cultural specifics. A model is laid out that aims to illustrating how different human music cultures intersect and "dock in" to a set of music features that are universally perceived, while also displaying culture-specific features that must be learned (the Dock-in Model of Music Culture and Cross-cultural Perception).

The concept of "Tenunan" [Weave]: a study of compositional strategies used in "Tenunan II" by Tazul Izan TAJUDDIN (b.1969)

Peck Jin Gan (University of Adelaide, Australia). [Panel 13]

Tazul Izan TAJUDDIN (b.1969) is one of the most influential Malaysian composers in the present Malaysian contemporary music scene. He has received many prestigious awards including the first prize in both Toru

Takemitsu Composition Award 2002 and Lutoslawski Composition Award 2005. Research reveals that his signature musical language incorporates cultural elements, especially Malaysian and Indonesian, within his European-derived medium. One of Tajuddin's signature techniques is the use of a 'pattern-based' compositional system, which he acknowledges is inspired by Iannis Xenakis (1922-2001) and Morton Feldman (1926-1987) who have created similar systems that draw on patterns of natural phenomena and Persian rugs respectively. Utilising "Tenunan II" (2001) for flute, celeste, piano, percussion and string orchestra as a case study, this paper investigates the ways in which Tajuddin applies the concept of 'tenunan' [weave] as the basis for his pattern to bring together different musical and cultural traditions including Islamic arabesque, batik and gamelan sonority. Score analysis reveals Tajuddin's meticulous strategies that weave together the selected traditions through structure, time, pitch and rhythmic organizations, ornamentation, and instrumentation. It is argued here that Tajuddin's innovative use of the concept of weave mediates multiple cultures to offer new insights into 'pattern-based' compositional systems while simultaneously supporting his chosen role as a broker for cross-cultural contemporary music in Malaysia.

Ethno-world: world music in practice? An ethnomusicological study Elise Gayraud (Durham University, UK). [Panel 36]

In a globalised world at the age of digital communications, traditional musicians are not short of opportunities to encounter diverse musical influences. Nonetheless, while a profusion of studies have investigated the changes brought by global communication via the internet, relatively little has been considered about recent world musicrelated initiatives outside the digital sphere, such as "Ethno-World", a project instigated by Jeunesses Musicales Internationales. Challenging participants' perceptions of their own music as well as other cultures, "Ethno" gathers young folk musicians from across the globe, mutually teaching their music for a week and then performing as a world music ensemble. Sharing and understanding foreign traditions is fundamental to the ethos of "Ethno", and it provides a genuine insight into different cultures. Since 1990, it has drawn together several hundred young musicians, in countries as varied as England, Sweden, Croatia, Estonia, Jordan, Uganda, Australia or most recently India, as well as the "Ethno of the Road" variation, performing at festivals across Europe. A large number of participants wish to pursue a career as a professional folk musician in their home country and intend to integrate features of the musics learnt at "Ethno" in their interpretations of their own traditional music and compositions. Thus, as well as making connections between folk music scenes worldwide, "Ethno" also greatly influences repertoires, interpretations, perceptions, and encourages certain types of musical hybridisation. Examining these processes is particularly valuable in understanding and analysing current world music. This paper, based on interviews with participants and organisers at the events, explores the impact that "Ethno" has had on folk musicians, the broader traditional music scenes and their reception and perception across the world.

All things being equal: the problem of reduction in second practice jazz Ben Geyer (University of Kentucky, USA). [Panel 17]

Wayne Shorter's compositions of the early 1960s exemplify a repertoire that Keith Waters recently called "second practice jazz." While prior scholars have analysed this music using reductive techniques, this paper aims to refine and systemize this procedure through close examination of methodological issues. In particular, like the second practice of the European tradition, works in this idiom resist monotonal characterization. I hope to show that reliance on rhythmic criteria can produce musically intuitive reductions even when pitch-based context is ambiguous. The proposed technique joins Steven Strunk's work on bebop with Lerdahl and Jackendoff's *Generative Theory of Tonal Music*. Strunk's "layered approach" relies on time-span analysis to demonstrate how bebop chord progressions are generated, from background to foreground, through particular harmonic operations. Lerdahl and Jackendoff's rule system, published only four years later, formalizes the procedure for time-span analysis based on perceptual principles. Their tree structures are used to visualize hierarchical interpretations of

Miles Davis's "So What" and John Coltrane's "Giant Steps," second practice precursors that clarify differing methodological concerns.

Diversity of performance timing in Balkan music **Daniel Goldberg** (Yale University, USA). [Panel 6]

Many songs and dance pieces from the Balkan Peninsula employ *aksak* meter, in which two categorically different durations, long and short, coexist in the sequence of beats that performers emphasize and listeners move to. Scholars and performers of Balkan music and dance have noted a qualitative flexibility in the relative beat durations of certain *aksak* meters, and the present paper quantifies this observation by analysing a selection of percussion performances, recorded in various contexts, that all share a particular *aksak* beat sequence, long-short-short. Measurement of the average durations between drum strokes indicates that these percussionists use numerous highly consistent timing patterns that differ from one another in the proportional relationships of their beat durations. Following Justin London, I interpret this diversity of performed timing as an indication that the general metric organization of the long-short-short beat sequence corresponds to many different particular meters. Moreover, in analysing details of timing on individual recordings, I speculate that a musician's training and the function of a performance can modulate timing relationships that might otherwise seem, from study of an isolated performance, to be dictated by the relationships of purely sonic features such as rhythms and pitches.

"Reach One, Teach One from My 'Hood to Your 'Hood'": towards a global model for HipHop pedagogy

Mehryar Golestani (SOAS, University of London, UK). [Panel 12]

In recent years, HipHop Pedagogy has progressed from a theory-based discipline into an international community of practising 'HipHop educators', comprised of teachers, development programmes and several academic institutions, in locales as diverse as Europe, the Middle-East, and North and South America. These 'HipHop educators' provide a curriculum in formal subjects such as English, Maths and Science, taught through a culturally significant reality pedagogy based on HipHop. Statistically, many of these projects have shown significant success in engaging with marginalized or at-risk young people who have previously underachieved in formal educational settings. Resultantly, plans are already underway to establish the UK's first 'HipHop school', which will offer a formal GCSE and AS/A2 curriculum. Given the worldwide spread of practicing 'HipHop educators' and the diversity in linguistic, cultural, political and religious factors associated with their respective locales, I ask: how are programmes of HipHop pedagogy implemented from region to region? How do different sociocultural perceptions of HipHop affect its effectiveness in engaging with young people when compared to other musical-based pedagogies? Can we arrive at a global model for HipHop pedagogy? I will draw upon my own experiences as a London based Iranian HipHop artist and part-time facilitator of a Hip-Hop education programme at a London Pupil Referral Unit to examine the factors involved in the formation of a global model for HipHop pedagogy with reference to Emdin's (2013) work on Neo-Indigenous Cosmopolitanism, and will present findings from original fieldwork carried out in London, UK, Ohio, USA and Tehran, Iran.

Revisiting tune families in shape-note hymns
Rachel Wells Hall (Saint Joseph's University, USA). [Panel 8]

In many early American churches—and some churches today—congregational singing consisted of *a cappella* singing using words-only hymnals. Over generations and in the absence of notated music, local church communities developed their own versions of common hymn tunes. These versions form a *tune family*—that is, a

collection of tunes, sacred or secular, that are variants of the same melody. Unless we know the original melody, however, it is not always clear which tunes belong in the same family. Moreover, when printed shape-note music was introduced in the early 1800s, tunes were sometimes varied by the conscious act of an arranger or editor. Students of American shape-note hymns who were active in the mid-twentieth century, such as George Pullen Jackson, Charles Seeger, and Samuel Bayard, have relied on their own intuitions—good though those intuitions were—rather than attempting to find parameters for identifying a tune family. More recently, there have been quantitative measures of melodic similarity developed that seem reasonable in this context and have withstood empirical testing—see, for example, Urbano's geometric model (2013). However, although the concept of tune family cuts across ethnic and geographic boundaries, the category of American shape-note hymn tunes is quite narrow. In this repertoire, we have extra information—the poetic meter of the hymn text—that parses each melody into phrases. The poetic meter also tells us which musical notes correspond to accented syllables in the text, so we can map one tune onto another. The question of quantifying similarities between hymn tune melodies is especially relevant to large databases of eighteenth- and nineteenth-century hymn tunes such as Temperley's Hymn Tune Index (1998) and Pappas' Southern and Western American Sacred Music and Influential Sources (2013). At the moment, these are searchable by exact melodic matches, but not by near matches. In this paper, we consider some of the tune families identified by George Pullen Jackson and others, propose quantitative measures of distance between their constituent melodies, and explore the possibility of using these measures to differentiate between members of unrelated tune families.

Music and society in Cyprus: the local and the European during the early 20th century Anastasia Hasikou (City University London, UK). [Panel 4]

This paper will be concerned with the study of music in the case of the Republic of Cyprus, pursuing a new approach in the writing of the island's musical history. The Republic of Cyprus is an example of a place where, during the last century, various representations of cultural heritage emerged, including music culture. The political problem of the island, known as the "Cyprus Question", affected and continues to affect many aspects of life on the island, including the way local and European music traditions were understood by different groups of people, such as the two main communities as well as the minorities of the island during specific periods. This presentation pursues the examination of the "social history" (Raynor 1972) of music in Cyprus during the beginning of the twentieth century, demonstrating that "musical practices are usually dependent on social, economic and cultural interactions" (Herbert 2003: 150). It focuses on the relation between the development of the musical culture throughout the Greek Cypriot population and the social and economical circumstances existing on the island during the early British colonial period. It draws on products of the island's first printing press of 1878, as well as records kept at the Public Information Office and the Archive of the Archbishops of Cyprus. Moreover, documents of the State Archive provide further information about the impact British colonialism had on the gradual spread of European music and its consequent influence on local musics.

Ambivalent pitch: characterising Mizo pentatonicism Joanna Heath (Durham University, UK). [Panel 27]

When the Mizo people in Northeast India first encountered the western hymns of the missionaries in 1894, they were sung with enthusiasm. The subdominant and leading tones were notoriously difficult to pitch, but they attempted to remain as close as possible to the tunes, notated in tonic sol-fa from the beginning of the twentieth-century. After a series of spiritual revivals inspired in part by the 1904 revival in Wales, Christianity rapidly became the dominant religion in the small remote region then known as the Lushai Hills, now the Indian state of Mizoram. By 1919, the introduction of drumming and dancing in church was also accompanied by a melodic shift towards a sound that felt more indigenous. Western diatonic hymn tunes were reduced to a nuanced pentatonicism,

and original songs were composed in the same style, which came to be known as lengkhawm zai. In comparing the western melodies to their sung forms in lengkhawm zai, as well as in studying the original compositions, the idiosyncratic nature of each of the five pitches becomes apparent. The ambivalent nature of the third is particularly interesting, lying between a major and minor third but fluctuating in pitch to the extent that its identity remains ambiguous. This is exacerbated by the tendency of pitches, especially the third, to fall. This paper presents an analysis of the five pitches of lengkhawm zai, using methodology that may in turn be applied in other analytical contexts.

Malandros and otários: the use of samba in Tropa de Elite and Tropa de Elite: O Inimigo Agora É Outro

Hans Hess (University of Bristol, UK). [Panel 13]

The use of samba in the films Tropa de Elite (Elite Squad, 2007) and Tropa de Elite: O Inimigo Agora É Outro (Elite Squad: The Enemy Within, 2010), focuses on the type of samba sometimes called the samba malandro. The samba malandro (= hoodlum samba) foregrounds the culture of lower-class Brazilians who live in the shantytowns, semi-marginal people who are unemployed, misfits in society: the malandros (hoodlums). This spivish life, including resistance to work and the refinement of skills to deceive people who become their otários (suckers, fools, the victims of the malandros), is portrayed in both films, and samba is associated with such features in both films as well. The analyses of selected scenes in Elite Squad will explore how samba can portray the character of Fábio as an example of a malandro, Neto as the otário, and how these roles are inverted throughout the story of both films. As a key musical feature, syncopation in samba will be analysed as a reflection of the smooth talk of the malandro articulating his next moves to find his otário. The aim of this paper is to explore how the theme of the malandros and otários is depicted by samba in these two films (among many other Brazilian films). From the perspective of a different music and global tradition, the analyses show how musical semiotics can help films to depict, interpret, contextualise and evaluate cultural, political and social features of recent Brazilian history.

Leaping dances in Crete: tradition in motion

Andre Holzapfel (Boğaziçi University, Istanbul, Turkey). [Panel 8]

Throughout the last decades a new enthusiasm for local music and an increasing trend towards re-discovering old local dances and tunes gained momentum in the island of Crete. In the presented analysis I combine an ethnographic with a comparative approach, driven by audio signal analysis tools, in order to address the question of how far tunes that serve to define local and micro-local identities differ in certain aspects with regard to the sound of performances. For this I investigate three sound aspects of Cretan leaping dance performances: tempo, rhythmic stress patterns, and contained melodic patterns. I accompany the analytical results with information obtained from my interviews with dancing teachers and musicians. My results depict small but significant differences depending on the dance, but also underline the great homogeneity of the repertoire. The results imply that all three aspects contribute to the fine differences between the dance tunes, with a clear emphasis on the melodic phrases. Therefore, this study with its findings and its computational tools paves the way towards the establishment of dictionaries of characteristic melodic phrases of Cretan dance repertoire, as well as of dance tunes with similar morphology.

What do historical notations teach Korean musicologists? **Keith Howard** (SOAS, University of London, UK). [Panel 4]

The strong historical dimension of much Korean musicology is reflected in a myriad of close and detailed analyses of surviving notations from the fifteenth century onwards, duly enabled by a series of more than forty facsimile

volumes of old scores, manuals and treatises from the archives of the National Gugak Center (Han'guk ûmakhak charyo ch'ongsô; 1981-2006). There is a sense that transcription, translation and annotation – the latter through the description and definition of musical characteristics – is considered to impart an element of objectivity to the musicological exercise, while celebrating, in a suitably Confucian manner, the considerable literary heritage of Korea. Not surprisingly, the results of research by Jonathan Condit (1976; 1979; 1984a; 1984b), and more broadly the research by Laurence Picken and his students and associates on Chinese and other East Asian musics, has been politely received. But, although the work of such scholars is deliberately mirrored in two volumes by the two Korean pioneers of musicological method, Lee Hye-Ku (1909-2008) and Chang Sahun (1916–1991), this is as far as it goes. Korean musicologists focus on different aspects of surviving notations, and see no need to embrace such foreign scholarship. This paper will explore how different interpretations of old notations have come about, using recent arguments about music and dance in state rituals (introduced in Howard 2012) to show how the worlds of historical musicology and contemporary performance practice interact.

Analysing Qin Music and its Taoist aesthetic meanings: a study of Qin's sliding inflections Chiung-Hui Hwang (National Chiao Tung University, Taiwan). [Panel 13]

The qin is a plucked long-string instrument with soft sound. Its sliding inflections are widely applied while being played. These inflections are produced after the initial pluck to extend and continuously modify the plucked pitch. They involve different melodic functions and various techniques that deliver player's spontaneous sentiments. Qin's sliding tones are faint and soon decay to the extent that their pitch gradually becomes hard to discriminate and ultimately disappears into the sound of frictional sibilance. This forms the basis for qin aesthetic conception of 'soundlessness' (wu sheng 無聲), including the balance of 'vague' (xu 虛) and 'substantial' (shi 實), namely, Yin and Yang; the aesthetics of 'distance' (yuan 遠) and 'receding' (shiqu 逝去); the alternation between auditory discontinuity and continuity within qin melodies. This paper aims to explore qin sliding inflections and the associated perceptual phenomena as described above. Beside studying qin aesthetic literatures and Taoist philosophy, I combine both the method of musical analysis on selected performances of qin music and the theory of conceptual blending to illustrate how the sliding tones are produced, perceived/imagined, and interpreted with the influence of Taoist philosophy that lies behind the musical aesthetics of Chinese literati art culture. This research examines how sliding inflections contribute to the perceived intricacy and subtleness of qin music, and how Taoist philosophy are involved into the conceptualization of qin aesthetics meanings.

Tone-tune relationships and indigenous musical theory in Kam song from Southwestern China: research techniques and approaches Catherine Ingram (SOAS, University of London, UK). [Panel 38]

Implicit knowledge of the musical theory underpinning the unique and rich Kam (in Chinese, Dong) minority singing traditions from southwestern China—including the important Kam "big song" tradition inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity—is still held by many middle-aged and older Kam villagers. However, such theory has never been comprehensively articulated or formally studied. This paper describes the development and employment of an integrated set of musical research techniques that are both institute-based (digital analysis of recordings; research into related secondary sources) and field-based (drawing on 24 months' ethnographic fieldwork in Kam villages since 2004) to permit articulation of the primarily pitch-based relation between the Kam language and Kam song melodies (so-called "tone-tune relationships") that form a central component of indigenous Kam musical theory. Through using these approaches to explore tone-tune relationships within Kam musical theory, this paper thereby aims to expand current techniques and models for researching the musical theory of localized cultural communities—particularly communities for which creative

solutions to musical research problems are demanded—and also outline a practical approach for researching musical theory in tonal-language-speaking communities.

When Bima gets his rage on: semiotics in aural disorientation in Ladrang Bima Kurdha Pelog Barang

Maho A. Ishiguro (Wesleyan University, USA). [Panel 11]

I experienced the most aurally disorienting moment in a Javanese gamelan ensemble as I sat in for someone on *kempul* at a performance of *Ladrang Bima Kurdha*. A discrepancy between the melodic and structural frameworks resulted in my perceived aural ambiguity. I analyse musical elements of Ladrang Bima Kurdha, each of which create targeted effects on the listeners. First, I use the contour theory to measure the similarities among melodic contours, and to discuss how melodic contours organize pitches into phrasal units. Secondly, I study the vertical aspect—the density of simultaneous voices. The relationship between melodic phrasal units (revealed by contour analysis) and textural periodicity (provided by structural punctuations) exposes a discrepancy that creates this aural ambiguity. My third analytic method, semiotics, addresses what this aural disorientation signifies. Bima Kurdha ("Enraged Bima,") portrays Bima, a hot-tempered giant from the Mahabharata. Bima's rage upsets the harmony of the world, breaking the synchronicity between melodic unit and structural frame. Together with the semantics of the snare drum in the post-colonial context of Java, three musical topoi— asymmetrical phrasal units, discrepancy between the melodic and structural frameworks, and snare drum—are strategically integrated to create a musical picture of the trembling anger of Bima.

Is there a Northumbrian pipe tune style? Analysis from specific to general **Andrew Killick** (University of Sheffield, UK). [Panel 27]

It seems relatively unproblematic to state that the northeast of England has produced a distinctive form of bagpipe, and that this instrument has a distinctive playing style even when playing music originally conceived for other instruments or voices. The Northumbrian smallpipes is physically distinguished from other bagpipes by its closed chanter, which permits the use of detached and staccato notes, and these are generally regarded as essential to idiomatic Northumbrian smallpipe playing. What seems harder to agree on is whether the instrument has a distinctive repertoire with compositional characteristics amenable to analysis. The Northumbrian smallpipes is sometimes described as a bagpipe invented to play fiddle tunes, and even tunes composed specifically for the Northumbrian smallpipes may show features that suggest the influence of other instruments. Yet there is some degree of consensus among pipers as to which tunes are most typical of the instrument and its tradition, and efforts have been made since the mid-nineteenth century to analyse the style of these tunes. This paper reviews these previous theories and asks whether a more precise description of Northumbrian pipe tune style is possible using the analytical methods now available. In doing so, it also seeks a systematic method for progressing from the "specific" analysis of individual tunes to the "general" analysis of a style.

The cognition of time in Korean traditional music **Hyelim Kim** (SOAS, University of London, UK). [Panel 5]

This paper will analyse a Korean composer who is devoted to new music for Korean traditional music, Sngkn Kim (b.1967). The composer had also studied the taegum (Korean transverse flute) and has developed an understanding of the performer's perspectives on music making. The intimate relationship between musicians and music opened his eyes to the contexts within which performances actually takes place. His composition, 'Taegum Quartet 2006' (2006), draws on elements from the traditional piece, 'Sujech'ŏn', dating from the Chosŏn dynasty (1392–1910).

The concept of time in the piece, particularly interested him; slow tempos allowed the parallel movement of instrumental clusters which had formed through subtle changes of timbre and pitch. I will compare the Taegum Quartet 2006, with 'Sujech'ŏn' as a historical source and with Isang Yun's compositions. Isang Yun (1917–1995), was the most famous Korean composer of the post-war generation. Yun, who studied Western art music and settled in Germany, gained an international reputation as a composer who created an Asian 'tone'. 'Taegum Quartet 2006' uses the philosophical foundation of 'Sujech'ŏn,' as it connects melodic components with the overall structure of the entire piece. The Haupttön (main tones) technique of Isang Yun can also be applied on the larger scale. However, Yun's perception on the vertical movement of harmonic structures is based on the European avant-garde and this challenges horizontal movements of individual tones. Sngkn Kim is critical of Yun's ideas on the movement of tones, which he felt were detached from the traditional sounds that form their essence. To Kim, then, the most important factor is a proper understanding of the original context. Korean traditional music must rely on individuals who are willing to accept the tradition as a whole by learning it first-hand, not as fragmented components that assist with some other ideology.

Harmony in Bulgarian Music: village style accompaniment from the 1920s to the 1990s Kalin Kirilov (Towson University, USA). [Panel 31]

The music of Bulgaria is an excellent example of a complex musical tradition that combines Middle Eastern makams, pentatonic scales, diatonic modes, microtonal structures, and major/minor collections. This presentation analyses trend-setting pieces from the repertoire and traces the formation of a unique harmonic system found in Bulgarian village music. The Bulgarian harmonic system developed gradually, starting from integrating primary triads, through vertical displacements and chord substitutions, to borrowing progressions from modern jazz. At the beginning of the 20th century, Bulgarian musicians began adding chordal progressions to preexisting village style repertoires. Recordings from the 1940s-1950s illustrate harmonic preferences for primary triads. During the 1960s-1970s, tambura players further expanded village style harmony by adapting chord progressions from arranged ensemble folk music. In the 1980s Bulgarian wedding style had a strong influence on village style accompaniments. The two styles from this period are difficult to separate, since most tambura players also played guitars in wedding bands. Recordings from the 1990s illustrate far more advanced harmonic vocabularies in comparison to recordings from the previous decades. The tambura players in the 1990s had higher musical education and expertise in a variety of musical styles such as the wedding style, rock, and jazz.

"Lineages of knowledge": apprenticeship among the Mande hunters of Mali Theodore L. Konkouris (Queen's University Belfast, UK). [Panel 5]

In Mali, West Africa, hunters form secret societies which hold regular ceremonies that can be either public events, or private and sacred ones. Musical performance is central to all hunters' events and is often recorded and released as cassettes but also transmitted through specialised hunters' radio shows. In song, a hunters' master musician, accompanied by his apprentices, calls hunters to dance. He challenges powerful hunters to step out of the audience and demands from them his share of the hunt. In doing so, he moves around the performance site, dancing and singing the praises of hunter-heroes. Based on eighteen months apprenticeship under a master hunters' musician, this paper considers aspects of music cognition among hunters, and examines the relationship, interaction and impact of hunters' 'lineages of knowledge' on this specific musical tradition, in order to answer a critical question: can intersubjectivity, experiential fieldwork and ethnographic narrative help cultivate new modes of musical description in order to grasp and comprehend cultural and social dispositions such as music making among the Mande hunters? Furthermore, are such approaches capable of navigating the vast multicultural soundscape of the twenty-first century?

Linear polymeter: the notion of compound metrical directionality in African and neo-African musical traditions

Bertram Lehmann (Berklee College of Music, USA). [Panel 28]

This paper suggests a fundamental redefinition of the notion of polymeter based on an expanded interpretation of metrical ambiguity at the level of a musical phrase (e.g. a melodic or percussive ostinatos), and posits the existence of a paradigmatic multi-metrical dynamism already present among the subdivisions of the individual isochronic beat structure, whereby properties of both binary and ternary directionalities are merged in rapid cyclical succession – effectively creating a new, compound quality of motive energy. A structural integration of these two metrical directionalities forms the core of a number of African and African-derived musics including various Afro-Brazilian genres like Samba and Maracatu, African Dagomba, Wolof or Gnawan traditions, and Son and Rumba as well as Colombian Currulao music from the Caribbean region, while its musical characteristics have tended to elude descriptive notational representation. It will be argued that enculturated performers do not conceive of this type of micro-timing as a deviation by some quantitative factor from a normative yet hidden quantized regularity, but engage its expressive potential within a cognitively-driven process of deliberately controlling qualitative aspects of the music's overall metrical salience. This proposed, performatively-informed notion of polymeter attempts to interpret this highly fluid subdivisional matrix in terms of what might be more aptly called "temporal morphing," whereby individual attacks function in and can be interpreted from either metrical perspective. Such emergent polymetricity is hence not to be confused with that of a polyrhythmic yet nevertheless mono-metric texture based on one underlying isochronic subdivision of typically 3 or 4 units.

Self-exoticisation and identity negotiation in mainstream Hebrew music Mili Leitner (Trinity Laban Conservatoire, UK). [Panel 30]

The strength of the klezmer revival movement over the past forty years has left non-Yiddish Jewish mainstream music in an unprecedented position, beyond the realms of conventional Jewish music. Aided by technological advances in digital music sharing, Sephardi, Mizrahi, Ladino and Israeli artists have successfully created a style demarcated against Yiddishland's musical output, and in so doing have forged an unlikely stylistic alliance in what might be termed the 'New Hebrew' style. Characterised by use of Ivrit, maqam, and instrumentation (oud, percussion) and rhythmic devices (tabla, darabuka) of Arabic origin, the style undoubtedly draws strongly upon Israel's cultural heritage. Use of non-Jewish Semitic devices is a new departure for these musics, and is replicated in the image creation and projection of the Hebrew artists in question. Proponents of this genre are thus forging and exporting a new, exoticised Jewish identity. Rather than speaking of mainstream Hebrew music in ethnic, national or geographical subcategories, a more appropriate and meaningful method is proposed, based upon examination of both musical and extra-musical characteristics of individual artists. Through diverse case studies, I examine the lyric topic, lyric language(s), instrumentation, rhythmic patterns, tonality/scale use, image projection and target audience of Hebrew musicians. By tracking pairs of characteristics diagramatically, using graph formats, the discrepancy between ethnic/national/geographic origin versus musical/extra-musical characteristics, self- and other-perceived identity becomes evident.

Prachan: music, competition, and conceptual fighting in Thai culture Great Lekakul (SOAS, University of London, UK). [Panel 36]

Prachan is a form of music competition unique to Thai music society which has played a critical role in the evolution of Thai Classical music. Although traditionally, there is no judgement by the juries and no declaration of the winner, it is a very intensive competition, requiring a spontaneous response to the music played by the

opponent. The phenomenon of Prachan has not yet been researched in detail, though it is representative of the intellectual knowledge of Thai music. Prachan arguably offers rich new insights into music competition in relation to the conflict between music schools and the fundamental concepts of Thai culture. Focusing on Prachan-Piipaat-Saepa competition at Wat-Prapilane and Wat-Sripawat in Bangkok in October and November 2012, I aim to investigate the Prachan in terms of musical knowledge through the conceptual response in music competition in order to reveal the concept, strategy, and the response of the audiences as well as the wider surroundings of the music competition. Based on my interviews with musicians and music scholars as well as participant observation in Prachan events, I argue that in the absence of the declaration of a winner and ranking of the musicians' performances, the participants of the competition attempt to overcome others, by creating a narrative themselves, by strategically choosing certain musical pieces to perform and elicit a response from their rival musical schools, as those pieces are loaded with symbolic cultural meaning shared by the musicians and audiences.

A new tool for the analysis of lute melodies Frédéric Léotar (Université de Montréal, Canada). [Panel 34]

The Karakalpak bards of Central Asia have developed a rich repertory of melodies for the two-stringed lute (duwtar). To effect an in-depth analysis of these musical pieces the ethnomusicologist Frédéric Léotar joined with the electronic engineer Martin Hermant, in an interdisciplinary project. As a first step this consisted of developing microphones capable of recording each lute-string independently (separated from each other by only a centimeter). The prototype was used in the field where the Master G'ayrat O'temuratov (Baqsi) was recorded in some sixty duwtar pieces. Each melody was captured in two files (melody and drone) to be analysed separately. This paper, based on the first results of a larger study, will show some of the creative processes characteristic of a Central Asian culture at once original and little known. It will highlight the thematic evolution at the heart of these musical examples, showing the rapport of one musical motif to another, based on recurring processes. This presentation will be accompanied by audio-visual examples.

Toward a naive analysis: transcribing Western art music **Ethan Lustig** (University of British Columbia, Canada). [Panel 19]

This paper approaches Western art music in an intentionally naive way. Ignoring the notated prescriptive score, I instead transcribe a specific recorded performance as I hear it, in the process creating my own descriptive representation (Seeger, 1958). In this sense I am approaching it no differently than any other music from around the world. The method is subjective and perception-oriented—but with the tools of music theory and analysis. The recording I examine is György Kurtág's "The Day Has Fallen", from Poslaniya pokoynoy R.V. Trusovoy (Messages of the Late R.V. Troussova), Op. 17 (1976–80). The recording is treated as an immutable sound entity, not as a mutable composition that varies between performances. Transcribing the recording, I include only what is audible to me (which has been shaped by my own experience), discarding the details of the score that are lost in listening. This is music in its truest and most vivid form: as heard. Specifically, the analysis casts light on the ways that time is regulated in the recording. I demonstrate why I hear substantial stretches of 4/4 meter. An articulated pulse layer defines the tempo; accents affect my perception of downbeat placement, measure, meter, grouping structure, and form.

E-launedda, a device for the analysis of music and gesture in launeddas music **Marco Lutzu** (Conservatorio di Cagliari, Italy) and **Paolo Bravi** (Conservatorio di Cagliari, Italy). [Panel 21]

Launeddas is the name of a triple clarinet, the most important instrument in Sardinian traditional music. Since when, in May 2007, the engineer Francesco Capuzzi invented an electronic version of this instrument (called electroneddas) several players have been fascinated and have tried to play it. The first time we saw the electroneddas, we understood that, with some modifications, it could be useful for analysis purposes. With the help of engineers Capuzzi and Guido Coraddu (that realized the e-launedda software) we created a device able to capture the finger movements, to visualize it through graphic representations and to investigate the relation between musical structures and gestures. Research was carried out together with two launeddas players: not only they gave their contribution by playing the electroneddas, but they discussed with the authors some of the points of interest which emerged from the analysis. In the first part of our paper we will describe how the E-launedda device works, showing how this technology can be adapted to other wind instruments. In the second part we will show the main outcomes of our research: how finger movements depend both on ergonomic and musical needs and the function of gestural pattern in the launeddas music. In the third part we will discuss how joining instrumental analysis and statistics and ethnography could be effective in ethnomusicological research.

The sale that sings: considering melody, rhythm, and meter in American auctioneering Nikki Malley (Knox College, USA). [Panel 3]

The American auctioneer is an improvising musician whose practice both directs and is shaped by bidder activity in participatory performance. Ethnography and musical analysis reveal linguistic and musical formulae employed by auctioneers and the relationship between a semi-structured model of practice, stylization, and improvisation. Although most auctioneers do not self-identify as musicians, the musical strategies through which they enact a ritual of economic exchange can be understood through musical analysis. The monotone chant, or "hum", acts as a home base above and below which auxiliary pitches offer melodic variety in a "fulcrum" relationship to the hum. An auctioneer's individual style is evident in opening, inner, and closing melodic-linguistic formulae and in distortion, where auctioneers elide, truncate, or inflect words to speed and smooth out declamation. Rhythmic practice is comprised of flexible ("referential") metric treatment rarely observed in improvised musics wherein a primary meter alternates with expansions or contractions of the meter. Disruptions of familiar musical patterns focus bidder attention on the chant rather than the realities of the economic act in progress, placing attendees in a musical space in which the unrelenting urgency of the chant precludes reflection on their buying decisions.

Rule-based meter induction in the syllabic (heirmologikon) style of modern Greek church chant

Panayotis Mavromatis (New York University, USA). [Panel 9]

Greek church chant employs simple and complex meters according to Greek chant theorists, who moreover emphasize the consistent placement of stressed syllables on strong beats. However, meter is rarely notated in the printed sources. In the syllabic (heirmologikon) style, syllables mostly correspond to notes delivered at a steady quarter-note pulse; irregular word-stress patterns lead to irregularly spaced strong pulses, hence to rapid and unpredictable changes of meter. This study aims to algorithmically uncover the chant's underlying meter based on word stress and formulaic structure. A vocabulary of recurring melodic formulas is identified, on which statistics are compiled for the typical locations of word stress. 'Ictic' notes are defined as the formula's notes with the propensity to attract word stress. Two levels of ictic strength are identified, giving rise to a preliminary two-level metric grid, which is further refined by two metric well-formedness constraints: disallowing (i) successive accented beats and (ii) a stretch of more than two unaccented beats. These constraints modify the original grid by shifting

mid-level accents or generating extra ones. The result is a well-formed musical meter consistent with theoretical descriptions, which allows the systematic, rule-based study of the tune-to-text grammar internalized by native carriers of this tradition.

Materialities of musical analysis Andrew McGraw (University of Richmond, USA). [Panel 19]

Western musical analysis has been dominated by metaphors of the tactile object through which the temporal unfolding of music is represented as a stable, inert and tangible thing. Attributing metaphorical objectness to phenomena that are not things is consistent with a Cartesian-Newtonian understanding of the world as populated by objects that are ontologically discrete and separate from the human mind. New Materialism reimagines objects as active, agential products of networked matter and mind. From this perspective sound is not a thing to be objectified for analysis, but a series of dynamic relationships between a musician, an instrument, a listener, etc. In this presentation I discuss the Balinese *tri-angga* music-analytical metaphor to demonstrate that the reification of sound into analytical object is found in ethno-theoretical traditions globally, many of which pre-date or have evolved independent of the Cartesian tradition. I argue that the abstract objects of musical analysis often straddle Cartesian and New-Materialist theories. They are spoken of as if imbued with the stability and unity of Cartesian things. Yet, like the objects theorized by the New Materialism, they are the co-products of mind and sonic phenomena, actively calling listeners into dialogue and guiding their listening experiences in particular ways.

Memorizing the repertoire and the musical gesture with the same learning process Marie-France Mifune (National Museum of Natural History, Paris, France). [Panel 38]

This paper aims to study the relationships between the musician's body movements, the musical instrument, and the repertoire in the *bwiti* cult among the Fang of Gabon. Study of the musical instrument includes its morphology and material, the playing technique and its repertoire and also the analysis of the body movement of the musician. The musical structures are not memorized and performed only as audio patterns but also as body movement sequences. I take into account the musical-practice learning of the two fundamental musical instruments in the *bwiti* cult, the harp and the musical bow, in order to reach the cognitive processes of the composition of a piece and its performance. I will show that the composition of the musical pieces is closely linked to the learning process of each instrumental playing technique. For each repertoire (harp and musical bow), I will show that the same principle underlying the composition of the musical pieces allows the musician to learn all the pieces in a given repertoire in the same way, including the musical gesture. From the ethnographic perspective, this principle underlying the musical pieces confirms the symbolic meanings of the harp and the musical bow in the *bwiti* cult.

The sound of stretched time: the modulation of phrase, pattern, and attention in Central Javanese gamelan music

Christopher J. Miller (Cornell University/Wesleyan University, USA). [Panel 1]

Discussions of form and rhythm in Central Javanese gamelan music, or *karawitan*, have largely focused on technical explanations of its colotomic structures, or on those structures' symbolic and epistemological significance. In this paper I take a more phenomenological approach in examining *karawitan*'s distinctively expansive temporal character. Like London (2004) I acknowledge psychological perspectives on temporal perception, but in contrast to his focus on metrical variety within acknowledged limits, I propose that *karawitan* enables players and listeners to exceed those limits. With a "rigid binariness" (Becker 1979) manifest on all levels, *karawitan* is pervasively metric and hypermetric. (Hyper-)meter is articulated explicitly by patterns of gongs and gong chimes, but far from

imposing periodicity on an otherwise undifferentiated musical flow, they reinforce a musical fabric that is deeply isoperiodic (Tenzer 2006). I examine how multiple layers of melodic and metric patterning structure anticipation of arrival points. Equally important is the transformation of the temporal scale of those patterns through changes in tempo and density relationships, a "flexing" of "the frame" (Sutton and Vetter 2006) that blurs the boundary between meter and hypermeter. By stretching music in time, and expanding one's cognitive capacities, it is almost as if time itself is stretched.

Analysing clave feel within melodic-rhythmic "mambo" improvisation **Sue Miller** (Anglia Ruskin University, Cambridge, UK). [Panel 18]

'Clave feel' is often cited as one of the main elements of Cuban and salsa improvisation yet very little to date has been done to demonstrate this concept analytically whether using notation- or purely text-based analysis. The mambo-style solos of flautist José Fajardo are analysed here in order to demonstrate this clave concept using annotated transcriptions of recorded solos to demonstrate the relationship between the two-bar timeline of clave and melodic-rhythmic improvisation characteristic of Cuban and Latin popular styles. Conventional techniques from the classical instrumental repertoire are aligned with an understanding of Cuban clave organisation in order to analyse cross-rhythms, clave accentuation, call and response sequences and percussive motivic development. An African aesthetic as expounded by Henry Louis Gates' Signifyin' theory and Samuel Floyd's Call-Response concept is similarly explored, and these theoretical approaches are combined with more traditional analytical methods. As a practitioner of the Cuban flute style, ethnomusicological methods also inform the analyses of transcribed solo improvisations. Thus through these interdisciplinary methods the clave sensibility of one of Cuba's most renowned soloists is described in detail using analytical techniques from a variety of musical contexts.

Revealing the changing faces of Korea's East Coast shaman ritual music: analysing personal style in an improvised musical tradition Simon Mills (Durham University, UK). [Panel 3]

The ritual music played by troupes of hereditary shamans in Korea's East Coast region is well known in Korea for its unusually complex and varied rhythms. It is also notable for the high degree of creative freedom afforded to musicians during performance, with improvisation remaining a defining feature of musical experience. A number of researchers have analysed East Coast ritual performance before, elucidating metric structures and identifying constituent rhythmic patterns. However, certain facets of this rich tradition remain largely undocumented and little understood:

- Personal style. Ritualists stress the importance of establishing one's own musical world a vital means to distinguish oneself from the competition. They spend much time amongst themselves discussing the attributes of one another's playing.
- Improvisation. Ritualists invariably emphasise the therapeutic value of improvisation: it enables them to respond sensitively to the clients' needs on a moment by moment basis, while generating a vibrant atmosphere in which the next moment remains hard to predict.
- Stylistic change. Senior ritual musicians claim that the ritual musical style has changed dramatically since their youth and younger ritualists agree; on hearing the oldest surviving recordings, they sometimes can't even identify which rhythmic cycle is being played.

This paper discusses the methods and findings of a recent project, conducted together with Sunghee Park between May 2013 and June 2014 and funded by the Academy of Korean Studies, which has aimed to shed light on these aspects of the tradition. The paper details the comparative, collaborative, and experimental analytical methods that have been applied in the researchers' quest to identify what makes each ritualist unique, suggesting approaches that

respond to and reflect the ritualists' own preoccupations with musical individualism, improvisation, and stylistic transformation.

The other leading note: findings from a comparative analysis of the flat supertonic Sarha Moore (University of Sheffield, UK). [Panel 28]

Cross-cultural and cross-genre studies can bring different harmonic practices, metaphorical associations and ideologies to the foreground, highlighting expanded significations across cultures. This paper concerns the findings of research focused on a specific musical feature, the flat second pitch degree (\flat 2), as it appears in various contexts.

I analyse examples from Indian, Ottoman and Arabian influenced music, and Western genres including metal and film music. I juxtapose an exploration of difference in connotations of the $\,\flat\,2$ across cultures with an understanding of commonalities in its use and significance, through the disciplines of (ethno)musicology and cognitive psychology. Findings include that the $\,\flat\,2$ has a significant functional role in these tonal musics, having as strong a 'yearning vector' as the major seventh 'leading note'. There are nuanced and complex connotations relating to its closeness to the tonic, with metaphors of verticality underpinning many interpretations of the falling $\,\flat\,2$ –1 cadence. The Western listener frequently hears the $\,\flat\,2$ marked as Other or signifying 'anxiety'. Such connotations are exploited in film's subliminal soundtracks and reinvented in metal as positive and transgressive, to support a concept of the Other Within. In traditions such as Oriental metal and Bollywood, hybrid connotations support articulations of powerful, modern identities. Cognitive understandings surrounding the $\,\flat\,2$, connected with unfamiliarity, concepts of dissonance and metaphors of falling, bring a particular richness to the use of this note in different genres, which often has cultural specificity. The $\,\flat\,2$ as a focus provides a well-defined site for disciplinary debates on cultural boundary lines.

"Catching it": perception, emotions and expectancies in Amhara sung poetry **Katell Morand** (University of Washington, USA). [Panel 32]

In the Amhara Highlands of Northern Ethiopia, most musical performances consist of sung poetry displaying complex interactions between text and music. Listeners aim at "catching it", i.e. at disentangling the poem as they progressively make sense of the ellipses and (often personal) allusions hidden along the non-measured and highly ornamented melodic contours. And they seldom stay silent, as they exhibit throughout their suspenseful waiting a wide range of codified reactions and strong emotional responses. What insight can we have into this experience of listening? This paper argues for the combination of in-depth musical analysis, ethnography, and a cognitive perspective in the understanding of perception and emotional arousal. After introducing the main genres of Amhara sung poetry and their contexts of performance, I will present a method of transcription that accounts for the interaction of their verbal and musical elements and demonstrate that the melodic contours are built upon cues and motifs deriving from emotional speech intonation patterns and in a complex relationship with the metrical structure. We will then see what an examination of listeners' reactions – especially to early emotional cues – reveal of the implicit knowledge and expectancies that guide their perception. I will argue that these reactions support the hypothesis that genres of sung poetry act as cognitive schemas, recently highlighted as "expectational sets" (Huron 2006). This will lead to my concluding remarks on the role of ethnography in bringing together analytical and cognitive approaches to study of listening.

Breathing life to iron: audio recordings and the (re)making of the jew's harp virtuoso **Deirdre Morgan** (SOAS, University of London, UK). [Panel 7]

In 1988, Leonard Fox's 'The Jew's Harp: A Comprehensive Anthology' was published with a dedication "to the memory of Karl Eulenstein, last and greatest virtuoso of the Jew's harp." However, Fox's book came at a time when a new generation of jew's harp virtuosi was, in fact, on the rise. Two decades later, twenty-two contestants from around the world competed for the title of 'World Jew's Harp Virtuoso' at the 6th International Jew's Harp Congress in Yakutsk, Russia. But from whence has the international revival of this historically overlooked musical instrument come? And how exactly does a jew's harp enthusiast become a virtuoso in the absence of formal teachers, written repertoire, and mainstream accessibility? Using ethnographic case studies from contemporary jew's harp revival movements in Europe, I examine the extent to which audio recordings are playing a role in the formation of a new generation of jew's harp virtuosi. How are recordings being used as source material for jew's harp players, and what are the drawbacks of this method of transmission for an aural tradition? Where do these recordings live, and how do they circulate in the public sphere? This paper uses ongoing fieldwork to explore how different paradigms of accessibility and ownership are impacting the musicians, researchers, and festival programmers of jew's harp revival communities.

Authenticity and innovation: analysing Tunisian 'ūd improvisation Salvatore Morra (Independent Scholar). [Panel 31]

With the rise of commercial mass media in the twentieth century, mainstream Egyptian music came to be regarded as the dominant style of Arab music, informing musical innovations throughout the Arab world. Within this context began a general development of traditional improvised instrumental forms such as $istikhb\bar{a}r/taqs\bar{n}m$ (solo instrumental preludes), particularly in relation to the ' $i\bar{u}d$ (lute) — the quintessential Arab urban musical instrument. This study focuses on the $istikhb\bar{a}r$ using as primary sources recordings of Tunisian artists held by the national sound archive of the Centre of Arab & Mediterranean Music in Sidi Bou Said. The research aims to understand to what extent analysis can explain how particular social and cultural identities may be evoked, articulated, and represented in music in genres of instrument-specific improvisation. In this paper, I illustrate, through music transcriptions, how analysis of improvisations on the traditional indigenous 'iud' 'iud' arbiu', and a comparative analysis of its style and the iud iud' arbiud modern models serve to explore the manner in which the Tunisian 'iud' arbiud' iud' arbiud and distinct material object – transforms traditional stylistic elements. I suggest that close analytical attention to improvisation in Tunisian iud' (modes) broaden our understanding of the Arab mode system (iud).

A grammatical isomorphism between Western tonal and North Indian classical music **Somangshu Mukherji** (University of Michigan, Ann Arbor, USA). [Panel 17]

If a comparative study of Western and non-Western musical structure reveals cross-idiomatic similarities, these might originate from a shared cognitive capacity for music. Indeed, this seems true for the human cognitive capacity for language, which manifests itself through grammatical universals seen across the world's languages, as 'Chomsky-an' generative linguists have long demonstrated. But how might one explore this musically, given that non-Western idioms often lack the kinds of grammatical structure ascribed to Western music, such as the I-V-I harmonic, or the three descending *Urlinie* archetypes ascribed to it by Schenkerian theorists? This paper proposes a specific interpretation of Schenkerian theory to tackle the above problem. By focusing on more abstract aspects of tonality, such as its binary-branching, hierarchical structure (rather than its specific, triadic manifestation in Western tonality), and by building on Schenker's idea that tonal-harmonic grammar can be understood in linear terms, the paper shows how even non-triadic North Indian *raga* phrases reveal the prolongational structure traditionally ascribed to Western tonality – therefore suggesting a striking grammatical isomorphism between these

two idioms. This, in turn, suggests that certain cognitive capacities for music, like the ability to generate hierarchical phrases, might be shared across idioms, and might possibly be universal.

Never losing one's way: structure, pacing and proportion in North Indian ālāp **John Napier** (University of New South Wales, Australia). [Panel 33]

This paper investigates structure and pacing in North Indian classical performance through empirical measurement of key points in $r\bar{a}ga$ exposition, and through examination of real time as proportion in performance. The basic research question is as follows: "to what extent may a consistent sense of proportion be observed in the larger units of a North Indian performance?" I address this question by studying the timings of particular moments in vocal $\bar{a}l\bar{a}p$, especially the climactic sounding of the upper tonic and the clear introduction of rhythmic foregrounding and intensification. Data are compared across performances by single performers, from performer to performer, and across the genres of dhrupad and $khay\bar{a}l$. Initial results suggest that though there is substantial variety in the measured proportions from performer to performer, some performers maintain a remarkable degree of consistency. In other cases, there may be consistency in one proportion only, but it is very rare that no consistency is to be found. I consider that this sense of proportion and temporal balance is patiently developed through imitation of a teacher, juxtaposed with critical writing that suggests that this is one of the hardest aspects of North Indian performance for an "outsider" to master.

"Ónů-Òkwà" (Song Bird) – tone, time and structure Emmanuel Ndubuisi Nnamani (University of Cambridge, UK). [Panel 30]

Is there any theoretically formulated concept of form in African music? Are non-solo performances mainly conceived in form of simple call-and-response procedures? How do African musicians, composers and performers articulate and present the various levels of performative structures and the meanings they generate and/or create during music-making? How are these facets of musical creativity rationalized within the larger societal, cultural, social and psycho-philosophical standpoints? Answers to these questions can be located in the theoretical study of African music beyond mere Anthropo-sociological gaze. Using Égwů Àmàlà (paddle music) of Ogbaru (riverline) Igbo people in Nigeria as a reference point, this paper problematizes the discourse of form (structural, stylistic and performative) in African music. Égwů Àmàlà was originally performed by women for the worship of the river goddess (mammy water) but this context has long declined due to intra-cultural translocation of the music. This paper examines the theoretical permutations evidence in the unique performance structure of this music. Its cyclical models are conceived as the quintessence of performance ideal strictly articulated by the performers. These models are fused in unique metrical configurations based on irregular temporal dispositions. The psycho-philosophical implications of these structural processes are shown to be part and parcel of the fundamental factors of creativity in Égwů Àmàlà. These fundamentals result from structural-theoretic considerations that inform musical creativity in African societies beyond the notion of complexity of rhythm. The internal structuring discussed here highlights the need for a re-focused, more theoretical engagement in African music discourses.

A dynamic analysis of the Somali gabay luuq Martin Orwin (SOAS, University of London, UK). [Panel 37]

This paper will consider the *luuq* in Somali, a vocal melodic line which traditionally carries the words of a poem and which varies according to poetic genre and, to an extent, between individual performers. Concentrating on the *luuq* of the prestigious, long-line *gabay* form of poetry (even though in this form the *luuq* is much less used these days than it was), I shall present a musical analysis of it and shall consider it in light of developing ideas in which

music is considered within an analogue of Dynamic Syntax. This is a framework for natural language that provides a model of how a hearer builds an interpretation from the information provided by the lexical items (the words) and the context (both the immediate linguistic context and the general context). Through the analysis of the *gabay luuq*, I shall consider whether we can talk of analogues of linguistic lexical items in this particular type of music, and if so, what these are and how they might be characterized.

Maltese prejjem: an Arabic musical process concealed in a European tradition Andrew Pace (University of Manchester, UK). [Panel 5]

Modern Maltese language and culture stems largely from its Arab occupation between the ninth and eleventh centuries. However, frequent Ottoman corsair raids during the following centuries of European occupation left a deep-seated hostility toward 'The Turk' in folk history. Yet musical links between these cultures have been contested for decades. Scholars (and singers) of the Maltese vocal tradition of ghana have often commented on its superficial affinities with Arabic music, but the guitar tradition has not received any attention to date. Analysing the deep musical structures and cognitive processes of improvisation in prejjem has revealed unexpected links. The Maltese guitar tradition, prejjem, is based on a body of stock melodic material that a guitarist will utilise as building blocks in his performances. These core melodies are improvised upon in specific ways through contraction, expansion, ornamentation, and centonisation, with a focus on maintaining the essence of these core motifs. Drawing primarily on musical analyses of recordings and ethnographic enquiry among practitioners, and secondarily on my own performance insights as participant-observer, I would suggest that this system is comparable to the improvisation processes of the Persian radif and of the Arabic maqamat. That an improvisation process common to Arabic classical traditions is at the heart of prejjem poses a number of wider contentious issues to a resolutely 'European' Maltese society, revealing latent ambivalent affinities.

Refining the tradition: traditional male singing groups in modern Korea Sung-Hee Park (Durham University, UK). [Panel 27]

This paper focuses on sŏnsori sant'aryŏng (lit. standing mountain songs), a traditional song and dance genre in Korea originally performed by male groups. In particular, it explores how the genre has been refined over the course of the 20th Century. Since its designation as an IICP (Important Intangible Cultural Property) in 1968, sŏnsori sant'aryŏng performances have been standardised to the specifications of concert halls: generally, a leader sings 'call' parts and plays simple patterns on an hourglass drum (changgu) strapped diagonally across his body, while other performers stand around him, playing small hand drums (sogo), singing the 'response' parts and dancing. Although the origins of the groups remain unclear, there is strong evidence to suggest that they materialised when the travelling entertainment troupes, sadangp'ae, settled for good in the capital. However, most sant'aryŏng singers of today, including the former and present IICP holders Yi Ch'angbae (1916-1984) and Hwang Yongju (b.1937), deny any relationship between the two performing groups. It is not surprising that modern day sant'aryŏng performers would choose to distance their art from low status groups such as the sadangp'ae, especially given the latter's associations with prostitution. To ensure sufficient distance from the sadangp'ae, both histories and musical forms have been significantly revised by singers. By analysing musical patterns, texts, and performances, and examining historical sources and interviews, this paper seeks to ascertain how 20th Century sant'aryŏng singers have molded their tradition in line with changing tastes.

A kinetic approach to music analysis: coarticulation in South Indian rāga performance Lara Pearson (Durham University, UK). [Panel 37]

This paper presents an analysis of Karnatak violin $r\bar{a}ga$ $\bar{a}l\bar{a}pana$ (unmetered improvisation) through an exploration of the physical movement with which it is performed. Drawing on theoretical approaches that expound the relationship between music and motion, a joint kinetic-sonic analysis is created here as a means of examining musical structure. A particular aim of the study is to assess whether coarticulation, which can be defined as the tendency for the performance of a unit to be influenced by that which precedes or follows it, can be seen in Karnatak music. The material investigated is a video recording of $\bar{a}l\bar{a}pana$ in todi $r\bar{a}ga$ performed by the violinist T.K.V. Ramanujacharlu in Tamil Nadu, South India. A section of the recording is transcribed into staff notation and visualized using pitch contour graphs created in Praat sound analysis software. The hand movements required to produce the musical phrases are described from observation of the video alongside graphs showing motion-tracking data. Interviews with musicians, participant observation, and the author's experience as a student of Karnatak violin provide the foundation for interpretation of the data. Results show that coarticulation can be seen in the performance of svaras (notes) and svaras (notes) and svaras (ornaments) in Karnatak music.

What and where is metrical accent? Prolegomena to a comparative study Marc Perlman (Brown University, USA). [Panel 6]

Musical meter is a set of expectations, a cognitive model. It is learned implicitly from the patterning of events in a musical texture: when note onsets tend to cluster at certain regularly-recurring time intervals, the mind comes to expect things to happen at those moments. As a result, when a tone is heard at any such moment, it seems to acquire a feeling of weight or strength. The larger the cloud of events consistently heard at any given point in a time cycle, the heavier and stronger the impression it leaves—an effect we call *metrical accent*. Researchers have studied this phenomenon in European art music by counting the note onsets in some group of compositions. The results usually show a close correspondence between the number of onsets at each metric position and the relative strength musicians attribute to that position. Does this hold for other musical traditions as well? I sketch the beginnings of an answer by tabulating note onsets in a large set of compositions for the Central Javanese *gamelan* ensemble. The results do not so much answer the question as complicate it. They also invite us to reflect on the semantics and cross-cultural applicability of terms like 'meter,' and to frame criteria we can use to determine if 'meter' can be said to exist in a given tradition.

Hearing the mbira dzaVaNdau Tony Perman (Grinnell College, USA). [Panel 10]

The mbira dzaVaNdau is unlike any of the other lamellophones commonly played in Zimbabwe. While obviously related, its cycles are more varied, its rhythmic tension and ambiguity less predictable, and it is almost exclusively a solo, secular instrument. By examining the sound of the mbira dzaVaNdau and the varied pieces played on it, I explore how the holistic presentation of rhythm, melody, and harmony, as developed in the subtle and ambiguous exploration of pitch, timbre, and texture bring us closer to fully understanding how such music is organized and becomes powerful. Through a sustained comparison with the mbira dzavadzimu, I address the unique characteristics of mbira dzaVaNdau performance. In attending to such pieces as Chifembera, Baba Enda Joni, Ndaremba Kusewa Gudo, and Madanga, I examine how the layering of patterns, as defined by the fingers that play them, the register of the patterns themselves, and overt rhythmic tension contribute to brief, dense, and repetitive performances that undergird improvisational play and vocal expression through song. Unlike the repertoire of the mbira dzavadzimu, the mbira dzaVaNdau's music utilizes a variety of cycle lengths, beat patterns, and harmonic sequences. The elementary pulse is less commonly audible, the beat is rarely reinforced by the hosho, and cycles

played, due to their variability, are less predictable. Freed from the responsibility of ceremonial performance, the Ndau mbira can contribute to musical games, social commentary, poignant expressions of personal anguish, or stories of joy and whimsy. Mbira dzaVaNdau performance embodies expressivity in brevity and clarity through density.

"Beyond semantics": continuities and discontinuities in maskandi song and izibongo **Thomas M. Pooley** (University of South Africa, South Africa). [Panel 38]

Most scholarship on maskandi music has analysed the content and social commentary of lyrics, or the structure of guitar styles. This paper puts semantics on hold and focuses instead on the distinctive melodic features of maskandi vocalization that, in the final analysis, reduce neither to 'words' nor 'music,' but to a range of intermediate forms. maskandi music provides a useful case study for comparing pitch patterning in song and speech because of the range of expression. Vocalizations accompanied on guitar are usually delivered in three main modalities: as speech, as song, or as declamatory utterance (*izibongo* or praises). Each of these modes varies in intensity, pacing, gesture, and prosodic structure. A comparative analysis of patterned changes in the fundamental frequency contours of these modes shows there is a balance of linguistic and musical determinants. Praat is used to model and measure the melodic profile of these three modes, and to demonstrate the role of linguistic prosodic elements of speech tone and intonation in shaping them. The songs analysed were recorded during fieldwork in KwaZulu-Natal, South Africa, during 2011-2013.

Marginal musical spaces at St Aldates, Oxford Mark Porter (City University, UK). [Panel 2]

St Aldates is a large, Charismatic, Anglican church in the centre of Oxford. The music of the church's regular Sunday services stands within the tradition of Contemporary Worship Music and the church's musical leaders cultivate an intentional sense of consistency both in style and in repertoire. Within this environment, individuals are often expected to set aside existing musical tastes and attachments, adopting an attitude of worship regardless of their relationship to the musical environment which they find themselves in. Away from the Sunday services there are a number of more-marginal musical spaces in which a wider range of musical forms find expression. Each of these spaces embodies a musical dynamic distinct in some way from the mainstream life of the congregation and embodying a different relationship between individuals' diverse musical attachments and the communal musical life of the church. In this paper I will describe two such environments: 'Sing, O Barren Woman' and 'Word on the Street'. I will examine the musical dynamics present within them and their relationship to the broader musical life of the church. These environments potentially serve both to challenge and to reinforce prevailing musical models within the church, according musical style varieties of significance which it is unable to obtain within corporate worship, but at the same time limiting the scope of such attributions through the way in which the differing musical spaces are framed.

Sounding memories: musical practices as narrative in the expulsion of the Germans from the Bohemian lands

Ulrike Präger (Boston University, USA). [Panel 4]

In 1945/46, after the surrender of Germany in World War II, approximately twelve million German civilians living in Central and Eastern Europe were expelled mostly to Germany in what R.M. Douglas termed the "largest forced population transfer ... in human history." Even though these events occurred over sixty years ago, the memories of these expellees suggest the ongoing immediacy of their experiences. For this phenomenological-historical

ethnography, I collected over eighty life stories specifically from Sudeten Germans (ethnic Germans expelled from the Bohemian lands). Through the lenses of musical practice and musical repertoire, I investigate how these Sudeten Germans used and still use music as a tool for both remembrance and adaptation in their new environments. I seek to understand music's significances for social and political integration in the Sudeten-Germans' "new sounding homeland" in West Germany. Taken one at a time, these recollections disclose the various ways in which musical practices retrieve memories of their Bohemian homelands and are able to mitigate both the loss of those homelands and the distressing effects of expulsion. Woven together, these recollections reveal how music offers emotional solace and facilitates the building of a new sense of belonging in the face of geographic displacement and material dispossession. A comparison of these recollections to memories of Sudeten Germans expelled to the former East Germany and to memories of Germans, who were forced to stay in Czechoslovakia, highlights how the reframing and silencing of musical practices affected processes of social identity reconstruction until the 1989 Velvet Revolution.

Vocal production in the world's music cultures

Polina Proutskova (Goldsmiths, University of London, UK), **Geraint Wiggins** (Queen Mary University of London, UK), **Christophe Rhodes** (Goldsmiths, University of London, UK) and **Tim Crawford** (Goldsmiths, University of London, UK). [Panel 24]

How can vocal production be described and compared cross-culturally? Singing teachers often use idiosyncratic terminology: only recently has more objective language of physiology been introduced, pioneered by Jo Estill. Medical professionals use rating systems such as GRBAS to assess vocal quality, though these are primarily used to uncover voice disorders. A coherent and comprehensive model of vocal production has yet to be developed. Even within a single culture, such as Western music, there is little agreement among professionals about basic terminology. Publications in English that analyse vocal production in other cultures are rare. A seminal ethnomusicological study on cross-cultural comparison of singing was undertaken by Alan Lomax and his Cantometrics team. Among other characteristics, vocal production was studied using perceptual descriptors, but the rating procedure did not take the subjectivity of perceptual descriptors sufficiently into account. We shall present a study with 13 participants—otolaryngologists, speech language therapists, singing teachers—who performed physiological analysis of 19 singing fragments from 11 cultures, using our preliminary ontology of vocal production. The aim of our study is to verify the viability of the physiological approach to modeling vocal production.

Pairs of interval classes in southeast Asian tunings Jay Rahn (York University, Canada). [Panel 8]

Construed non-numerically (Rahn 2011, 2012, 2013), the following normal-Forte-order formulations accurately model southeast Asian fixed-frequency tunings: *sléndro* 11111..., the 'usual' pentatonic 22323..., Thai pentatonic 11212, 5-tone *pélog* 11313; Thai 'equiheptatonic' 1111111..., *diatonis*/diatonic 1222122, and 7-tone *pélog* 112112. In well-documented instances, two or more of these tunings appear in single pieces that have been realized in one or more cultural settings. In order to convey the consequences of such 'translations' from one tuning to another, seemingly distinct tuning, one can observe that since each tuning is 'well-formed' (Carey and Clampitt 1989), each maximizes the number of interval-pairs within particular generic-specific interval-classes. In ideal, mathematical terms, if d is the number of steps in a register, the number of such interval-pairs is $d(d+1)^2/2$ in 'degenerate' *sléndro* and Thai equiheptatonic, and d(d+1)(d+2)/3 in the remaining, 'non-degenerate' tunings. The formulation outlined above identifies salient structural relationships between realizations of single instrumental pieces in otherwise contrasting tunings and between passages comprising 'exchange tones' (*métabole*) within individual pieces. Also clarified are aspects of inter-cultural cognition, *tarling*, *miring*, and 'vocal tones.' As well, the formulation's scope is conjecturally expanded to include traditional tunings of Japan and Okinawa.

Musical gesture, "Shi" and propensity in contemporary Chinese composition Nancy Rao (Rutgers University, USA). [Panel 17]

The paper seeks to explore a workable notion of musical gesture that can reflect an important Chinese aesthetic concept—"Shi"—or propensity, as discussed by sinologist François Jullien. In discussing Mozart, Beethoven, and Schubert, Robert Hatten has described musical gesture as "energetic shaping of sound through time," with a focus on the way it conveys affective motion, emotion, and continuities of shape and force. Chinese aesthetics "Shi", when applied in music, can be described in similar ways. However, it emphasizes more the dynamism produced, and the tension that animates various elements to create a single gesture. While shaping through time, "Shi" cannot be measured by clock-time and is indifferent to telos. The paper will explore the potential, the energy, and the disposition of "Shi" that underlie a distinctive notion of musical gestures. The latter part of the paper will offer the expressive interpretation of several such musical gestures in compositions by Chen Yi, Chen Qigang, and Chou Wen-Chung. The focus will be given to the musical gestures derived from Chinese opera's percussion music and how they work together to produce an expressive dynamic process. Another type of musical gestures derived from the art of landscape painting will also be touched on, as it reflects the notion of "Shi" quite poignantly.

Form and counterpoint in a duet genre from Tanjung Bunga (Indonesia, Flores, Western Lamaholot)

Dana Rappoport (Centre Asie du Sud-Est, CNRS, Paris, France). [Panel 29]

This paper draws on recent fieldwork (2010-12) among Lamaholot-speakers at the eastern tip of Flores (Indonesia). Anomalously, in a regional landscape of gong-and-drum ensembles and large choruses, these people, most of them farmers, sing only in duets. Various polyphonic techniques may be combined in the same tune including parallel movement, counterpoint, ostinati, and moving drones. One of the main features is the high frequency of seconds in the harmonic construction. Different practices of two-part singing are to be found all over the region, such that singers living in villages 10 km apart cannot sing together, although the singing context is similar. Is it because they do not share the same kind of polyphony? My research compares the musical form of a dozen genres, performed in different ways in the two neighboring villages where I did my fieldwork. In this paper, I look at one musical genre only, that has neither the same name nor the same context in the two villages, but probably has the same kind of form and counterpoint.

Full moon musicking: sounding out the concept of emergence Friedlind Riedel (Georg-August University, Göttingen, Germany). [Panel 30]

In his concluding argument of "Theorizing musical meaning," Nicholas Cook writes that musical meaning is emergent (Cook 2007). He claims that meaning cannot be analytically derived from the score only, nor from an allegedly autonomous music, and neither is the musicologist a mere observer, as he makes clear, but a partaker in a certain process in the course of which meaning, as he says, emerges. Yet, even though the term encompasses the very process music analysis is interested in, it remains surprisingly vague. In my paper I will question this notion of emergence and explore the implications and consequences this term might have for the analysis of music. With reference to Mark Bedau (1997, 2008) I contend that his notion of "weak emergence" provides a different way of conceptualising causation in music, presenting an alternative to linear causation, which has been discarded as reductionist in the course of post-structuralist critiques. By thinking the concept in and through the musical enactment of the autumnal equinox in a Theravada Buddhist village of southern Yunnan I will analyse the full moon musicking as a weakly emergent phenomenon.

Bringing the music out, bringing the listener in: analysing the role of the male chorus role in Javanese gamelan

Jonathan Roberts (University of Oxford, UK). [Panel 36]

This presentation will focus on one group of musicians within the larger ensemble of a Javanese gamelan: the male chorus section (gérong). This small group of men have a number of roles to perform: singing, clapping, and stylised calls. Such roles are normally considered as separate phenomena and have discrete technical names. Only the metrical, unison vocals are explicitly linked to the group, and are referred to as gérongan, or 'that which is done by the gérong'. In this paper I treat all of these musical responsibilities as part of a unified role, united by the fact that they are all performed by the same group of men. Through a close investigation of each of the individual elements I build an argument for all of the functions performed by the gérong have similar significance in different musical areas, making particular features of what is happening in the wider group more apparent and more explicit. In doing this I reveal the profoundly social ramifications of the musical processes analysed and make the case for the gérong as a link between the ensemble and the audience, elucidating the musicians' interactions for those listening and making the audience's ways of understanding the music manifest within the performance.

Large-scale formative processes in ostinato music

John Roeder (University of British Columbia, Canada) and **Michael Tenzer** (University of British Columbia, Canada). [Panel 1]

A significant portion of the world's music is made through constant or varied ostinato. Scholars often focus on ostinato's "groove" or repetitive kinetic qualities, particularly when polyrhythmic layers interweave. Others classify ostinatos according to how musical "parameters" articulate their rhythm. But one also finds directed processes, deriving from features of the ostinato itself, that span multiple iterations of it while still preserving its identity. Musical direction and continuity arise in two basic ways: through the creation of streams of pulse, and through processes of grouping in which discrete events appear to connect into segments with beginnings and endings. By analysing how pulse and grouping arise within and across successive iterations of ostinato, we show how the nature of the ostinato affords processes that shape time on a larger scale. We describe ostinatos from several traditions in which connection of successive iterations is forged by groups or pulses that cross over the cycle's temporal boundaries. Sometimes anacrusis gives rise to grouping structures set off from the ostinato's metrical timespan. At other times a group or pulse bridges the ostinato's temporal boundary in such a way as to mask the re-articulation of its beginning point, linking cycles into groups of two or more.

Recursion in Indian music: towards a grammar of ālāp

Martin Rohrmeier (Massachusetts Institute of Technology, USA) and Richard Widdess (SOAS, University of London, UK). [Panel 9]

In linguistics and cognitive sciences the term 'recursion' denotes the embedding of one syntactic structure within another, especially within another of the same type. It has been argued that recursion in this sense is a near-universal and species-specific feature of human languages (Hauser, Chomsky and Fitch 2002), and that recursive forms of thought and expression characterise human culture, psychology and interaction more generally (Corballis 2011; Levinson 2013). The occurrence of recursion in different varieties of music would advance the claims that recursion is a general human cognitive capacity, and that music and language share some cognitive processing resources (Patel 2008). Recursion in music has been studied mainly with respect to Western music (Lerdahl & Jackendoff 1983, Rohrmeier 2011). This paper explores the idea that a recursive model underlies the development of a $r\bar{a}ga$ in $\bar{a}l\bar{a}p$ (improvised $r\bar{a}ga$ -prelude; Jairazbhoy 1961, Powers 1980, Widdess 1981, 2010). We analyse a

typical recording of $\bar{a}l\bar{a}p$ improvisation and ask how far its recursive structure could be expressed in terms of formal grammar.

The emotional voice – nonverbal communication from a cognitive-psychological perspective

Disa Sauter (University of Amsterdam, Netherlands). [Panel 32]

The voice is a rich source of emotional information. The linguistic content of our speech can convey affective meanings, but we also use our voices to communicate emotional information in nonverbal ways. I will outline three ways in which the voice is used to communicate emotions nonverbally: speech prosody, sound symbolism, nonverbal vocalisations. Prosody is the intonation overlaid on speech - we can say the same words in an angry or happy way. But are these cues the same for speakers of different languages? Sound symbolism is the affective meaning associated to certain sounds: for example, a 'k' tends to be perceived as sounding harder than a 'b'. Finally I will discuss evidence addressing the universality of nonverbal vocalisations of emotions, sounds like sighs, grunts, and screams. In conclusion, I will argue that the cognitive approach can be a useful tool for understanding the multitude of ways in which our voices are used to communicate emotions beyond words.

Hearing cycle in Korean court ensemble music Grant Michael Sawatzky (University of British Columbia, Canada). [Panel 1]

This paper considers examples of traditional Korean court music from an analytical perspective, focusing particularly on the rhythmic cycles—jangdan—that are a crucial, form-defining feature of the repertoire. The jangdan differ from the kind of cycles that are most familiar to Western listeners because, within jangdan, the "beat" durations are not uniform. This results from the fact that the jangdan cycles realize rhythms at very slow tempi, and are measured relative to a rate of breathing rather than against an underlying isochronous pulse. In an effort to better hear the unique properties of these rhythmic cycles, I consider existing descriptions of jangdan that come from within the Korean court music tradition, analyse recordings of selected compositions, and then reconcile the findings from these two contrasting viewpoints to develop a more nuanced listening strategy. My "insider" perspective is informed by the English-language scholarship on Korean music; to develop my "outsider" perspective I use computer software to collect accurate measurements of inter-onset intervals between attacks in the melodic and percussive instruments, looking for consistency in rhythmic pattern and/or durational proportion across multiple recordings of the same compositions.

Is music an adaptation or a technology? Ethnomusicological perspectives from an analysis of Chinese shuochang

Francesca R. Sborgi Lawson (Brigham Young University, USA). [Panel 19]

This paper examines two opposing perspectives on the debate about whether music is a biological adaptation or a technology. Those who espouse the first perspective claim that recent explorations into the intrinsic musical nature of human communication suggest an adaptive function for 'communicative musicality,' and the main proponent of the second perspective argues that music is not an adaptation; instead, it is biologically significant as a transformative technology. Based on my analyses of northern Chinese *shuochang* ('speaking-singing'), I support the notion that musilanguage—an evolutionary antecedent of communicative musicality—is an adaptive trait, and consider *shuochang* a modern example that displays some of the characteristics of musilanguage, reflecting a difference between semanticity and musical play as the two ends of the musilinguistic spectrum. At the same time, I suggest that *shuochang* has been deeply influenced by written orthographies, making it an example of a

transformative technology. In order to demonstrate how *shuochang* both reveals ancient musilinguistic features and reflects the technological influences of visual orthographies, this paper examines two fundamentally different processes for musically rendering Chinese word tone.

Reshaping the paradigm: pitch contour and melodic variation principles in an Aka polyphonic song

Rob Schultz (University of Kentucky, USA). [Panel 34]

The music of the Aka people of Central Africa does not operate under any sense of absolute pitch or fixed interval size. This has led Susanne Fürniss to surmise that "a graphic representation [of melody]...may be closer to the vernacular conception than transcription in staff notation" (2006, 169). Nevertheless, melodic contour plays no direct role in Fürniss's paradigmatic organization of variants for the vocal parts in her analysis of the Aka divination song dikobo damu da sombe. This paper explores an alternative paradigmatic organization of this material using Robert Morris's (1993) Contour-Reduction Algorithm (CRA) as the primary criterion for comparison. Based on the Gestalt principle of boundary salience, the CRA deduces both a basic shape and a variable number of intermediary levels for a contour by marking peaks and valleys as structurally significant, and removing "passing tones" and repetitions in successive stages until no further reduction is possible. Under this rubric, the syntactical ordering of variants employed by the Aka in performance often corresponds more closely to Simha Arom's characterization of both Aka musical practice and social structure as "a simultaneous dialectic between rigor and freedom" (1983, 30; trans. Kisliuk 1998, 3).

Spectral sets, classes, and morphologies in Tuvan throat-singing Lawrence Shuster (College of St Rose, USA). [Panel 24]

Unlike many global music traditions that privilege pitch and rhythmic relationships as the formative variables of musical production, Tuvan throat-singing (Khoomei) places great emphasis on tone-color and textural design. Tuvan performers engage sophisticated vocal techniques to generate a fundamental tone accompanied by one to three additional harmonics. The succession of diverse spectral textures provides a rich tapestry of changing harmonic colors and spectral contrasts characteristic of Tuvan Khoomei. In New Images of Musical Sound (1984) Robert Cogan pioneered the analysis of musical spectra by adapting the analytical strategies of linguist Roman Jackobson who first employed sonic oppositions or 'features' to characterize the sound structure of language. Collectively, the set of all available oppositions define a feature space; instantiations of specific oppositions result in feature complexes. This paper employs Cogan's approach as a springboard to develop additional analytical tools useful for describing and comparing the spectral design of Tuvan Khoomei. The analytical method can be summarized as follows: (1) Segment the timbral surface into a succession of discrete spectral events; (2) Characterize the spectral design of each event using Cogan's thirteen binary oppositions; (3) Define the succession of events as transformations within a discrete feature space; (4) Map the number, position, and relative energy of each harmonic within each segment as descriptive of its corresponding spectral class; (5) Characterize the succession of spectral features and classes as transformational pathways descriptive of spectral morphology. Analytical examples will include representative samples from three styles of Tuvan throat-singing: Khoomei, Kargiraa, and Sygit.

Imagining and imaging the sacred world of the deer singers (northwest Mexico) **Helena Simonett** (Vanderbilt University, USA). [Panel 20]

This paper focuses on the ceremonial music of an indigenous community in northwestern Mexico (Yoreme). It is based on ethnographic research, backed with preliminary results of a recent neuroimaging study of musicians' brain activities while listening to ceremonial music and imagining their sacred world (data acquisition through NIRS and EEG). Beyond the surface of the observable in the ritual lies a world of perception and cognition that is less accessible to our analysis. It is the past world of the Yoreme people as hunters and gatherers — a world that continues to inform their ceremonial life, worldview, and musical practice. In ritual song and dance, the deer singers, the musicians and the dancers claim to merge with the world around them: they transform into the animals with whom they co-inhabit the "enchanted world." Because of a consensual view of what makes up their sacred reality, based on a shared visualization of the landscapes in the mountain, the performers also share their affections and thoughts from where the songs emerge. Although the majority of Yoreme people no longer depend on hunting and gathering for sustenance, this intuitive space of knowledge remains alive in their rituals. It is a kind of sensitivity and responsiveness that has developed in a historically specific environment continues to inform musicians, their compositional process is based on their visions and sentient knowledge.

Thoughts on music as a creative process: revisiting Nettl's continuum of improvised music Gabriel Solis (University of Illinois at Urbana-Champaign, USA). [Panel 22]

Improvisation, glossed as the creation of music in the act of performance, has been an enduring area of interest for musicologists of various sorts since at least the 1970s. This broad field of study has produced a wealth of detailed, analytical scholarship in a range of world musical cultures. Bruno Nettl's 1974 article, "Thoughts on Musical Improvisation," remains foundational for much of this work, in no small measure because it offers an elegant, intuitively satisfying general theory through which to study musical improvisation as a kind of creative act in any musical tradition where it may be found. His article was importantly one of the first to characterize improvisation and composition as points on a single continuum rather than in a relationship of opposition. Forty years later, I argue in this paper, Nettl's theory needs to be revisited. Mindful of the value of his work, but also of critiques of it such as Laudan Nooshin's in "Improvisation as Other," I believe the two-dimensional model of the continuum needs further elaboration. Drawing on examples from post-bop jazz and Baroque music I propose in its place a three-dimensional model in which a wide range of creative processes can be understood in relation to one another—some of which are commonly glossed as composition, some as improvisation, and some as interpretation, but others not as any of these.

Atomic analysis and Andean aesthetics: dialoguing with ethnomusicology? **Henry Stobart** (Royal Holloway, University of London, UK). [Panel 21]

This collaborative paper serves to introduce the work and approaches of the Italian musician brothers, Raffaele and Felice Clemente, who for over 30 years, as Trencito de los Andes ('Little Train of the Andes'), made numerous recordings of Andean music. Building on this experience, the brothers have recently adopted a more self-consciously analytical attitude and new name: Il Laboratorio delle Uova Quadre ('Laboratory of the Square Eggs'), inspired by the 1949 Donald duck story 'Lost in the Andes'. The brothers' new methods include the precise reproduction, using multitrack recording techniques, of performances from ethnographic recordings. The creation of these 'hyperrealist portraits' of the original recordings is facilitated by the use of multi-dimensional musical transcriptions of microscopic detail; so-called partituras micrónicas ('micronic scores'). These enable the identification of the tiny idiosyncrasies including characteristic 'mistakes' of particular performers – their musical DNA – and open up a wealth of creative musical resources for the brothers and, it is suggested, for

ethnomusicologists. The outcomes of such atomic-level analysis - in the form of commercial audio recordings, which in essence are identical to original ethnographic recordings but of higher audio quality – alongside their focus on sound objects, rather than ethnography, may seem problematic from an ethnomusicological perspective. Nonetheless, it is suggested that the brothers' approaches and intensity of engagement with sound and aesthetics offer great potential to develop and enrich a hitherto neglected area of ethnomusicology.

Affect, improvisation, and interaction in diasporic West African performance practice: an interdisciplinary perspective

Chris Stover (The New School for Jazz and Contemporary Music, USA). [Panel 3]

Diasporic West African drum/dance performances unfold via relationships between interpenetrating binaries: participatory dialogue and individual expression, circumscriptions of possibilities and contingencies of protensive domains, cycle and linear flow, memory and projection, isochronous meter and asymmetrical timeline. This is a complex, polysemous dialogue: drummers, singers, and dancers enact a flux of call/response patterns where responses continuously transform into new calls, inviting next responses. A successful performance navigates the circumscription of fundamental performative roles and the openness of those roles to personal interpretation. All of this suggests an *affective* orientation: the performance unfolding through dynamic intensifications of affective bodies as they come into contact with one another. Using a *guaguancó* performance from Matanzas, Cuba, as my ground, I begin by framing the fundamental characteristics of the drum dialogue and describe some context-specific contingencies: the performative conditions that suggest certain calls and ranges of imminent responses that engage layers of intentional memory, enacting the music's projective flow. I then develop a gestural repertoire for dance, encompassing dynamic motions of feet, hips, arms, and more, in order to consider the characteristic calls and range of responses at the dancer's disposal. I close by examining mimetic, isomorphic (and significant non-isomorphic), and metaphoric relations between music and dance gestures.

Guembri motives in Gnawa Music: the nuance of repetition Maisie Sum (Conrad Grebel University College, University of Waterloo, Canada). [Panel 24]

A Gnawa music performance consists of varying one or two motivic structures defined by a cyclic concept of time. It comprises three main sections: an instrumental prelude that introduces the motives, vocal invocation, and a final instrumental section. The term 'icon' refers to a motive that corresponds to the supernatural entity being invoked and which identifies him (or her) to Gnawa adepts. The icon supports the choral refrain during vocal invocation and the increasing intensity of possession dance when the vocals end. The *oum*, a motive named by Gnawa musicians, primarily supports call-and-response phrases and functions much like an ostinato. Motives are rarely exactly repeated and are subject to frequent rhythmic and melodic manipulations. This paper investigates variations in the instrumental section during performance, and generates a typology of variations and sequencing rules. The inquiry is based primarily on transcriptions of field recordings that focus on the *guembri*, an instrument crucial to Gnawa rituals. Scholars of similar trancing cultures have also noted the centrality of instrumental melody and rhythm for attracting spirits. This music-centered approach extends current research on Gnawa rituals and the music of the sub-Saharan diaspora in North Africa.

Tēr-mallāri: analysing a musical form in a Śaiva temple ritual context **William Tallotte** (SOAS, University of London, UK). [Panel 22]

The Ter-mallari is a south Indian musical form played by shawm and drum players of the *periya melam* orchestra during daily rituals of Śaiva temples, notably when Śiva is taken from the main shrine to the bedchamber. While

musicians, priests and devotees mostly consider the Tēr-mallāri as a simple tune (relatively fixed), observations made *in situ* show that this 'small tune' is rather a complex and flexible form built on procedures using precomposition, variation and improvisation. Through the analysis of Tēr-mallāri performances recorded in the same temple (Chidambaram, Tamilnadu) and within the same ritual, this paper proposes to explore the relation between music and ritual, in terms of structure, time and space, as well as the constraints (musical, environmental, religious, etc.) that may influence musicians' decisions and actions. This multifaceted approach should at least allow us to answer the following questions: how far can performance be analysed in terms of pre-existing models and/or embodied knowledge? How far must non-musical factors be taken into consideration? On a theoretical level, this paper will interrogate the possibilities of using situated cognition concepts in musical analysis in order to apprehend improvisation or related practices from a wider perspective.

Music from the margins: (re)marking Gorkha identity in Darjeeling music festivals at India's borderlands

Angsumala Tamang (University of California Los Angeles, USA). [Panel 31]

Darjeeling, located in sub-Himalayan India, is well known for tea and tourism. However, despite Darjeeling's repute, Gorkhas, the majority ethnic group of Darjeeling, suffer marginalization and misrepresentation, both economic and cultural. Economic because the tourist and tea industries, controlled by corporate powerhouses of India, employ Gorkhas as low-paid manual labor, and cultural because living in India's borderlands and speaking Nepali, a language also spoken across the border in Nepal, Gorkhas are misconstrued in India as "foreigners." As part of the 107-year-old Gorkha movement for greater representation, elaborate month-long music festivals have become instrumental in highlighting the Gorkha cause since 2008. Focusing on the music festival held during October-November, my paper discusses the content of music performance and the contexts evoked to underline Gorkha identity on various levels—historic, cultural, inter-cultural, and territorial. In addition, I posit that the performance of Gorkha identity showcases discursive moves concurrently with claiming to be direct and unified. Taking this into account, I suggest the (re)marking of Gorkha identity not only entails the interrogation of identity, but also the question of "identification," which Stuart Hall theorizes as a "process" of articulating identity, not essentialist, but strategic, positional, and constructed within the play of power and ideology.

Tango, salsa and the performance of class and passion in Singapore Shzr Ee Tan (Royal Holloway, University of London, UK). [Panel 10]

Latin American music and dance has historically occupied an amorphous zone in Singapore, situated in the imagined space of an unclassifiable cultural Other not quite part of mainstream Anglo-American pop and dance music widely mediated across the island-state, nor deemed 'exotic' or 'traditional' enough to be fully integrated into world music or folk scenes consumed in Southeast Asia. A closer look will show up disparities of imagination between communities of practice and non-practitioners, with outsiders (mainly non-dancers) objectifying Latin dance and music as an expatriate-led scene providing platforms for the performance of passion and, to an extent, sexuality. In actual fact, not one - but several overlapping communities of 'insiders' exist. They resist as well as fulfil such essentialised projections of Latin dance in their social maintenance of identities as Latin fans, as well as in their competing music and dance activities. This study compares the genres of salsa and tango in Singapore, focusing on how imaginations of Latin music and dance are embedded within deeper confrontations of stereotypes about social and sexual mores in Asia. Early investigations have also revealed a class aspect to the making of separate tango and salsa scenes. Tango, with its higher barriers of entry, is largely patronised by professionals and highly-educated white collar workers who demonstrate their commitment to performances of sophisticated sensuality through recreating an imagined 'authentic' Argentine ideal. Salsa, on the other hand, enjoys a broader-

based audience: various groups from itinerant tourists to state matchmaking agencies and grass roots community clubs leverage on its symbolic and physical access to passion and intimacy for different agenda.

Transforming African music cycles in 12 easy steps Michael Tenzer (University of British Columbia, Canada). [Panel 8]

This paper, an exercise in speculative music theory, studies two African cyclical structures of very different origins and hypothesizes deep structural connections between them. Rhythm and grouping, and the idea of directed compositional process—specifically, the process of incremental transposition—are considered. I depart from a hunch that the cycles, even with different numbers of pulsations or available pitch-classes, can be shown to be based on compelling principles of equivalence. The procedure juxtaposes the recording of the 36-pulse, three-tone (plus "drone") *Hindehu* from the Central African Republic (Arom 1966, 1998) and the 48-pulse, heptatonic Zimbabwean mbira dzavadzimu tradition's *Nhemamusasa* (kushaura part only, performed by Hakurotwi Mude, recorded by Paul Berliner). The presentation moves step-by-step from one piece to the other, using transformations that leave important structural features undisturbed. The process raises questions about musical ontology and the history of compositional practice. As for the significance of the findings, they are critically considered in light of related previous research by Kubik 1988, England 1995, Brenner 1997, and Fernando 2011).

Leekspin's erotic journey from Helsinki to Tokyo: music appropriation in the digital age Andrew Terwilliger (Wesleyan University, USA). [Panel 21]

In this paper, I conduct cyber ethnographies in order to uncover the various instantiations of the Finnish folk song, Ievan Polkka, and the diverse and often contradictory meanings the song has come to signify to different people. In the first section of the paper, I highlight the semiotic framework I use to analyse Leekspin's diverse instantiations and receptions. I then apply this framework as I trace the tune from its 19th century origins to its present forms. The tune first gained international renown in 2006, when it was paired with a Japanese anime visual becoming the Internet meme, Leekspin. Next, it 'traveled' across North America, Europe, and East Asia, being understood and reinterpreted in myriad ways, ranging from children's breakfast cereal advertisements in Britain to erotic fetish videos in Japan. In the second half of the paper, I extrapolate and propose that aversions to conducting virtual ethnographies are unfounded, and that although the Internet is an excellent chance to reanalyse all ethnographic methods, especially pertaining to the perpetually problematic issues of re-presentation and identity. Finally, I refute the anxious narratives often found in the literature on global music and the fear of a cultural grey-out. Instead I endorse a celebratory narrative of music and technology. I argue that it is a mistake to conflate deterritorialization with homogeneity. Although Internet users still represent a minority of the global population, technologies are democratizing not only music consumption, but also music production.

"The lanang drum is the bus driver": how ethnography informs analysis in a study of Balinese kendang arja

Leslie Tilley (Kwantlen Polytechnic University and Vancouver Community College, Canada). [Panel 11]

The paired drumming (*kendang*) traditions of Bali are known for their intricate interlocking patterns. Drum-strokes on the higher *kendang lanang* intertwine seamlessly with patterns of like strokes on the lower *kendang wadon* to create complex composite patterns. Almost invariably, these patterns are exactingly composed. Yet, in the cyclic *kendang* playing of the Balinese dance-drama *arja*, both drummers improvise. How these simultaneously improvising drummers are able to weave their patterns seemingly effortlessly around one another, often at very high speeds, is an analytical question that has only begun to be investigated (e.g. Hood, 2002). There is no formal

Balinese music theory surrounding *arja* performance, yet the consistent ability of master drummers to successfully interlock with their partners in the course of improvised performance implies a set of guidelines being followed – whether consciously or not. And though most master drummers do not speak of these "rules" in any codified manner, months of fieldwork among them has revealed a musical and structural logic behind their improvisations. In this paper, I will examine the ways in which my casual conversations, lessons, and performances with several master drummers informed and gave focus to my analyses of *kendang arja* patterns.

Analysing musical meaning: an ethnomusicological perspective Elizabeth Tolbert (Peabody Conservatory of the Johns Hopkins University, USA). [Panel 11]

While transcription and analysis were central to the formation of the discipline of ethnomusicology, they have fallen out of favor as "positivistic" and thus not relevant to the understanding of musics in their socio-cultural contexts. Music is no longer considered to be an "object" but rather a process, i.e., "musicking". Previous efforts, such as the search for structural homologies between social structures and sound structures, have proven to be problematic from an ethnomusicological perspective, in that they essentialize structure in both cultural and musical domains. However, if formal features in music are properly understood as traces of social interaction and shared intentionality, rather than as static structures, they can be analyzed to uncover processes of meaning formation that are applicable cross-culturally.

Modes, improvisation and the search for an éthnik-jazz aesthetic in Greece Ioannis Tsioulakis (Queen's University Belfast, UK). [Panel 18]

So-called éthnik-jazz served as one of the most influential aesthetic movements among professional musicians in Athens in the 1990s and 2000s. Primarily drawing on modal genres of the Eastern Mediterranean and Euro-American jazz harmony, exponents of the scene produced a vast number of albums and experimented with different compositional forms and ensemble configurations. Groups such as Mode Plagal, Human Touch and Iasis, as well as solo artists including Haig Yazdjian and Vassilis Rakopoulos pushed the boundaries of the genre and formed canons that, despite their programmatic inclusivity, were accompanied by fierce debates on taste and 'appropriateness'. Based on extended ethnography and incorporating music analysis of some paradigmatic extracts, this paper will discuss some of the main aesthetic arguments that tantalised the éthnik-jazz scene. By looking at the use of modality and improvisation in recordings and live performances, it will examine how claims to 'authenticity' were sonically articulated to an audience of specialists in various traditions and idioms. Moreover, drawing on private interviews with musicians, I will investigate the way in which aesthetic ideologies became transfused from the musical to the verbal domain, connecting to wider debates of cosmopolitanism and ethnicity.

"We are Pentecostal; we are Evangelical; we are an AIC": musical indices of group identity and belonging in an African immigrant church

Rebecca Uberoi (University College Dublin, Ireland). [Panel 12]

Christ Apostolic Church (CAC) is one of a number of Nigerian Pentecostal churches to have been established in Ireland over the last two decades. Through the music performed in their weekly worship services, members of CAC in Dublin articulate their belonging to both a pan-ethnic (Yoruba) community and a global religious (Pentecostal/Evangelical) community. Music and dance at CAC help to evoke the memory of 'home' and thereby create a space where members feel they belong (Stokes 1994:3). The performance of Yoruba Christian music and ritual, with which all members are familiar and can participate, enables individuals to realise their connectedness within community (Turino 2008:2). This communal bonding provides a welcome respite from the difficulties

experienced in a strange country, and in this sense music fulfils a therapeutic function within the immigrant community (Bailey & Collyer 2006:177). Music is also used by CAC members to articulate their belonging to a global Pentecostal community. This affiliation reflects the origins of CAC whilst also locating the movement and its members within current worldwide Christian mission. Residence in a foreign country can be understood by CAC members in the context of 'reverse mission', where they become the saviours of a country in spiritual decay (Ugba 2009:200). Performing their membership of this global community can help CAC members to find a sense of purpose within the host culture.

Musical traces of the Holy Spirit: identifying linear progression within cyclic form in an African-American folk spiritual

Julia Ulehla (University of British Columbia, Canada). [Panel 14]

Wesley United Methodist Church's rendition of "It's Late in the Evening" possesses a great deal of vitality although it arises from a limited palette of musical materials operating within cyclic form. Is it possible to locate this life within the music itself? Transcription of sonic materials as well as the articulated physical actions of the participants supports the notion of linear development by highlighting elements of anacrusis, expansion/contraction of time, metrical irregularity, and non-isochronous meter. This linear development suggests the presence of other complex, even metaphysical processes. The song leader harnesses the energy of the congregation and exerts musical pressures on the environment, thereby introducing more energy into the system and effecting environmental changes of state analogous to changes of states of matter. A progression from what is solid, heavy and static, to that which is lighter, less dense, more dynamic, kinetic, and even apparently less subject to the force of gravity, appears in the bodies of the participants and in the music. The melodic and rhythmic variations that appear—shifting from lyrical singing to an increasingly punctuated, angular vocalism, increased syncopation, higher tessitura—as well as a progressively complex physical entrainment allude to this change of energetic state.

Counterdisciplines in electroacoustic improvisation Patrick Valiquet (University of Oxford, UK). [Panel 15]

Postmodernist deconstructions of authorship and neoliberal instrumentalisations of creativity have converged in recent decades to reconfigure the literacies and pedagogies of Euro-American art music. A widespread shift is now underway towards idioms grounded in aural phenomenology, social aesthetics, and experimental audio engineering, all of which are seen as destabilising traditional disciplinary knowledge. In this paper my central concern is with an emerging genre known as Electroacoustic Improvisation or EAI. My aim is to explore the new aesthetic and epistemological systems developing around this predominantly unnotated and autodidactic form of music making. From the perspective of practice theory, I ask what analytical and canonical doxa electroacoustic improvisers cultivate, and how they use these frameworks to structure production and listening. By way of illustration I examine two contrasting sites of EAI practice encountered during ethnographic fieldwork in the Canadian city of Montreal between 2011 and 2013: a laptop orchestra in an undergraduate music classroom; and a concert series organised by a network of nonacademic sound artists. I describe how these groups worked to construct an appropriate electroacoustic sensorium by saturating everyday life with reciprocal mentoring, listening and performing practices. I also describe how discourses of aural health and free improvisation functioned as tools of responsibilisation, enrolling individual musicians in the maintenance of aesthetic norms. By figuring EAI epistemology as counterdisciplinary, I highlight the degree to which it is defined by self-conscious reversal in the face of the perceived decline of modernist authority in the academic electroacoustic scene.

Mapping musical style and migration networks lana Webster-Kogen (New York University, Abu Dhabi, UAE). [Panel 12]

As female participation in the workforce across the cosmopolitan urban centers of North America, Europe and the Middle East skyrockets, domestic work is increasingly outsourced to labor migrants from Ethiopia, whose female population travels to Europe and the Gulf to work for remittances to send back to food-insecure Ethiopia. This paper examines Ethiopian music as a coded language through which migrant musicians navigate the complex web of religious, ethnic, national and embodied identities in their new surroundings. I present findings based on participant-observation of Ethiopian live music in Harlem, Washington, D.C., Tel Aviv and Abu Dhabi, and demonstrate that the musical style of labor migrants can be an effective method for navigating their perspective on citizenship and labor. Because there is an Ethiopian social taboo against criticism of hosts, making traditional ethnographic methods like interviews a poor indicator of the Ethiopian migrant population's perspective, this paper explores the ways that folk dance, hip hop, and R&B code critiques of the host culture. By considering performance techniques such as choice of language for lyrics, and the incorporation of Ethiopian or local dance style into music videos, I argue that scholars can map transnational migration networks effectively through interpreting transformations in musical style. The result is an ethnographically informed snapshot of a transnational labor force's perspectives on marginality and citizenship.

Pop goes the work-concept: ethnography and the analysis of art music recordings **Gregory Weinstein** (Columbia College Chicago, USA). [Panel 7]

In recent years, popular music scholars have forcefully suggested that a popular music "work" cannot be understood independent of its existence in the recording medium without potentially colonizing popular music traditions (Western and otherwise) with the values of 19th century European Romanticism. However, while music scholars now generally accept the importance of recordings for the analysis of popular music practices, the hegemony of what Lydia Goehr has called the "work-concept" has survived intact in the realm of art music. This paper challenges the persistent privilege of the classical "work" by taking the art music recording as the site of analysis. Drawing on my own ethnographic experiences in Britain's classical music recording studios, as well as analytical devices developed by Allan Moore and Albin Zak, I argue that an art music composition cannot be understood independent of its existence in recorded sound. Focusing on two specific case studies, an opera and a symphony, I suggest that ethnographic analysis can reveal features of the musical work unavailable to traditional analysis, including a decenteredness resulting from modern editing practices. I further argue that properties of the recording, such as ambience, must not be seen as peripheral, but rather as an integral part of the musical experience. By refocusing analysis of art music on the recording, I believe that scholars can better understand the epistemologies of classical musickers, and further, that we can perceive the activity of classical music as a distributed form of creativity, inclusive of musicians and recordists.

Pattern and antipattern discovery in Ethiopian bagana songs Stephanie Weisser (Musical Instruments Museum and Université Libre de Bruxelles, Belgium). [Panel 30]

Played by the Amhara of the Central and Northern highlands of Ethiopia, the large lyre bagana belongs to the spiritual sphere of Christian Amhara music (zema). Very powerful, it casts away evil spirits and establishes a contact between players/listeners and God, the Virgin Mary and the Saints. The observation of the learning process used by the most revered player, Alemu Aga, has shown that the starting phase of this process is based on the practice of short motives, comprising mostly two notes. In this study, data mining, following the approach of Conklin (2013), was applied in order to find melodic patterns (sequence of features of notes) and antipatterns (patterns that are absent or surprisingly rare within the analysis set) in a corpus of 35 bagana songs recorded and

analysed by Weisser between 2002 and 2005. It showed that bagana songs comprise mostly conjunct melodic movements and presentations of the ambitus of the instrument (highest-lowest pitch). On the contrary, fifths are extremely rare, even though bagana is tuned according to pentatonic scales. It also demonstrates that virtuoso players such as Alemu Aga use several patterns/antipatterns as exercises, indeed corresponding to those discovered as significantly frequent/rare through analysis of the corpus. This reveals that a detailed understanding about the repertoire is used to devise the most adequate exercises possible for the trainees.

We're all cosmopolitan now? The effects of technology in rural West Africa Trevor Wiggins (SOAS, University of London, UK). [Panel 21]

Since the notion of 'cosmopolitanism' was first described this concept has received considerable attention. Recent years have also seen this explored through music, and many subdivisions of cosmopolitanism, including vernacular, discrepant, hybrid and subaltern, have been described or proposed. Substantial research has applied the concept to music in Africa, notably focusing on nationalism and popular music in Zimbabwe (Turino 2000) and syncretic jazz in Accra (Feld 2005). It may be that cosmopolitanism now has so many layers, orientations and omissions (see, for example, Perman, Sungara in Zimbabwe. Ethnomusicology Forum 21.3 2012) that the model has been stretched to breaking point. The variety of ideas and exemplars offer a complex mix and the central concept may have become so essentialised as to lose its significance. This presentation will use a case study of the people of a traditionally agrarian society in rural northern Ghana but where the Internet and mobile data are now making an impact, to examine the case for the possible retirement of 'cosmopolitanism' as a meaningful description, or the addition of 'post-cosmopolitan' to 'post-colonial', 'post-modern' and similar descriptors.

Brazilian Capoeirista and Thai Sarama: ritual and form in the musical accompaniment of two seemingly disparate martial arts Duncan Williams (ICCMR, Plymouth University, UK). [Panel 16]

This paper examines the somewhat surprising common ground that exists in the music and musical rituals found within the cultures of two geographically and stylistically disparate martial arts: Thai boxing (*Muay Thai*), and Brazilian *capoeira*. Though there are differences in instrumentation, meter, and mode, both *capoeira* and *Muay Thai* utilize music as part of formalized rituals before and during physical competition as part of their 'martial' practices. In Thailand, competitive matches are traditionally accompanied by their own form, *Sarama*, as part of the *Ram* or *Phleng Muay* (a pre-fight ritual), which includes a musical soundtrack in direct response to the fight. The ritualistic nature of the *Sarama* performance shares some striking musical features with *capoeira*, despite having no obvious shared ancestry (the first commercial gym to offer Muay Thai outside Thailand was opened in Brazil in the late 1970s). The connection suggests that a number of holistic conclusions can be drawn regarding the role of music and ritual as an accompaniment to otherwise dissimilar combative sports.

Cognitive, affective and embodied responses to syncopation: a cross-cultural comparison of West African and North American non-musicians

Maria A.G. Witek (University of Aarhus, Denmark), Jingyi Liu (Williams College, USA), John Kuubeterzie (African Footprint International, Cape Coast, Ghana), Senyo Adzei (University of Cape Coast, Ghana), Appiah P. Yankyera (University of Cape Coast, Ghana), Morten L. Kringelbach (University of Aarhus, Denmark and University of Oxford, UK) and Peter Vuust (University of Aarhus and Royal Academy of Music, Aarhus, Denmark). [Panel 14]

There is an ongoing discussion about the difference in rhythm and metre perception between African and European music traditions. Some have claimed that African rhythms are not only structurally more complex, but meter perception in African listeners is also more sophisticated. However, such claims have been criticised as culturally essentialising and exoticising. Our empirical study addressed cognitive, affective and embodied responses to syncopated rhythms in two cultural groups of non-musicians: Ghana and North America. It was found that stability ratings of simple syncopations did not differ significantly between groups, indicating that the metric frameworks of the two groups were comparable. However, ratings of desire to move and feelings of pleasure in response to syncopated grooves were different. Participants from Ghana rated the grooves as more movement- and pleasure-eliciting overall. Furthermore, while there was an inverted U-shaped relationship between degree of syncopation and ratings in the North American participants, this inverted U-shape was less pronounced for Ghanaians, who rated both low and medium degrees of syncopation as equally pleasurable and corporeally entraining. Thus, meter perception may be no different in West African and North American non-musicians, but culture affects the influence of complexity on affective and embodied responses to musical rhythm.

With ears wide open: analysing the Jerusalem soundscape Abigail Wood (University of Haifa, Israel). [Panel 2]

In recent years, an 'auditory turn' in anthropology and ethnomusicology has turned the attention of many scholars and artists to the sounds around us. Studying sound has deeply enriched our understanding of the social contexts in which music is made, and sound art has probed the boundaries between musical and everyday hearing. Nevertheless, with a few notable exceptions, relatively little close analytical attention has been paid to the texture of individual sound events. In this paper, via examples drawn from several years of research in Jerusalem's Old City, from sound-battles among monks to the accidental 'counterpoint' of a cantor and muezzin, I explore possible avenues of interface between sound studies and musical analysis. When is 'musical listening' invoked by city dwellers? What are the units of analysis – when are sound events considered to separate or merge? How do the acoustic and experiential qualities of the soundscape interrelate? What insights might we derive (or not) by unpicking the juxtaposition of sound events?

Melody in the duet-singing of Fataluku-speakers (East Timor)
Philip Yampolsky (University of Illinois at Urbana-Champaign, USA). [Panel 29]

This paper is constructed as a parallel to Dana Rappoport's. It concerns *vaihoho*, another duet tradition from island Southeast Asia, this one from Fataluku-speakers at the far eastern end of Timor, in what is now the independent republic of Timor-Leste. Here again there are frequent simultaneous seconds and great local variation, such that people from different villages typically cannot sing together, even in what is nominally the same song. There are also crucial differences between the two duet traditions. Unlike the practice in Flores, where different songs or genres exhibit different types of polyphony, a single polyphonic idiom is common to all *vaihoho*. Moreover, *vaihoho* are not tied to agricultural rites, and the genre involves a complicated system of text deformation that is not found among the Lamaholot-speakers. This paper will examine a number of *vaihoho* melodies as sung in

different villages, to see the range of difference in local treatments of "the same" material. Duet-singing is anomalous in both Flores and Timor: most ethnolinguistic groups in both islands sing in large choruses. It is possible that the practice came with migrants from Timor to Flores, since some Lamaholot-speakers believe their ancestors originated in the Fataluku-speaking region of Timor. That would explain the anomaly in Flores, but not in Timor—unless the Fataluku-speakers themselves migrated from somewhere else (New Guinea?) and brought duet-singing with them. These historical relations are imponderable at present. What is striking is that the two duet traditions, related or not, are in the large view so similar, and so markedly in contrast to the predominant choral traditions, and yet are so divergent when examined in detail.

Special Panels

Meter in Malian Music: Theoretical, Analytical, and Perceptual Perspectives [Panel 23]

Non-isochronous meters in theory and cross-cultural practice

Justin London (Carleton College, US, Centre for Music and Science, University of Cambridge, UK and University of Jyväskylä, Finland).

This paper explores a typology of meters based on the extent to which they involve isochronous vs. non-isochronous (NI) elements. NI meters involve two or more *beat classes* and/or two or more *subdivision classes* (SDs), though in practice the number of beat or subdivision classes tends to be just two. NI beat classes tend to be defined quantitatively (duplet vs. triplet) while NI SDs involve categorically distinct durations (Short vs. Long). In addition to formal considerations, perceptual constraints affect NI meters differently than I meters: e.g., at rapid tempos long SDs may be divided while short SDs may not, giving rise to hierarchic structures that are only partially recursive. Many NI meters exhibit SDs with a 58:42 (Long-Short) durational ratio, a common solution to a general problem (i.e., performing a rhythm that is neither a duplet nor a triplet). The range of metric possibilities encompassed by I and NI meters also leads to a broader theoretical conclusion: a comprehensive theory of meter may have to be a "kluge" of subcomponents, as different combinations of I and NI elements, at different levels and tempos, give rise to different rhythmic possibilities, musical behaviors, and modes of understanding.

Perception of metric timing patterns in Malian Jembe-music

Hans Neuhoff (Hochschule für Musik und Tanz Köln / Cologne University of Music and Dance, Germany), Rainer Polak (Hochschule für Musik und Tanz Köln / Cologne University of Music and Dance, Germany) and Timo Fischinger (Max-Planck-Institute for Empirical Aesthetics, Germany).

Chronometric analyses of a piece of Malian jembe-music (Manjanin) by Polak (2010) suggest that its characteristic feel rests upon non-isochronous subdivisions of the beat, employing three durationally distinct sub-divisional pulses (short-medium-long). London (2010) questioned the reality of more than two different pulse categories in beat subdivision on psychological and theoretical grounds. We tested both assumptions by presenting timing-manipulated versions of Manjanin phrases to 24 professional Malian musicians and dancers in a forced-choice design of pairwise comparisons. Results show that, perceptually, there are only two pulse categories, a long and a short, and a short-long-long pattern (SLL) is constitutive of the Manjanin-feel. Metric timing patterns, then, appear perceptually less fine-grained than the performance data suggested. These results have implications for analytical studies of world music. While at first glance, the approach taken by Polak (computer-aided surface analyses) provides some reliable insights, our psychological study revealed invariances in Manjanin pattern production which are perceptually irrelevant. We advise, thus, against a straight interpretation of object properties and advocate the inclusion of music psychology into the armory of AAWM.

Swinging together: towards a comparative concept of swing-based meters in African(-American) musics

Rainer Polak (Hochschule für Musik und Tanz Köln / Cologne University of Music and Dance, Germany).

Non-isochronous subdivision of isochronous beats—addressed here as "swing"—is characteristic of the rhythmic "feel" and often marks the stylistic identity of pieces of music. Swing-based musics are associated with joint action settings that foster collective entrainment in dancing, marching, or working together. In jazz research, an uneven "long-short" (LS) division of the beat has attracted careful consideration, either as an expressive variation of a

duple subdivision or as based on an underlying triplet, though neither of these is truly accurate or adequate. From more recent studies of various swing types in other musics, a typology of patterns is about to emerge, including ternary LSS and SLL, and quaternary LLSS and SSLL, among others. The paper surveys the occurrence and types of uneven subdivision in drum ensemble musics of five ethnic groups from West Africa, where swing-based meter appears to be a core element of rhythmic style in some regions, but not in others. The paper also casts some comparative glances at other parts of the world, such as the Maghreb and Brazil. Finally, I demonstrate the advantage of a comparatively-informed concept of swing-based meter in revisiting an analysis of a piece of popular music from Cuba.

Society for Music Analysis (SMA) panel: Traversing Disciplinary and Geographic Continuums [Panel 26]

The application of Western theoretical models and analytical techniques to music outside the Western art canon has historical antecedents that go back decades, but it has noticeably been gathering pace in the last few years, not least through the AAWM's journal and conferences. At the same time, the Society for music analysis has declared for some time its welcome to members with interests 'in all musical repertoires and cultures' and its promotion of 'music theory and analysis in the broadest sense' (www.sma.ac.uk). True to this mission statement it has decided to sponsor and promote the upcoming AAWM-BFE conference at SOAS and the IMR as well as propose a panel that will highlight longstanding questions of analytical methodology, concentrate on a particular geographical area, and showcase some of the individual work of its members. We believe that in addition to its scholarly contribution, this panel also presents an excellent opportunity for future collaboration between the SMA, AAWM and BFE.

"Mixed Metres" in theory and practice Mark Gotham (University of Cambridge, UK).

Almost all known music relies on an hierarchical organisation of its temporal disposition, yet this 'metrical' parameter remains poorly understood theoretically, and minimally used in analysis, even for some repertoires in which it is unequivocally important. Better theoretical engagement with metre therefore stands both to illuminate important aspects common to diverse musical experience, and to provide new approaches to under-studied repertoires in which it is an important structural parameter. Repertoires making extensive use of complex ('mixed', or 'nonisochronous') metrical structures are a case in point. The most promising work here is to be found in the ethnographic literature on Balkan music (Brăiloiu 1951/84, Cler 1994, Arom 2004), while recent advances in core Western music theory have tended to focus on combinations of isochronous metres in 'dissonant' configurations (Krebs 1999, Cohn 2001, Murphy 2009), neglecting (20th century) Western music based on complex metres. This research contributes to bridging that gap, by providing a systematic basis for analysing the diverse repertoires employing these metres. Many short examples serve both to clarify the theoretical apparatus discussed and to suggest further analytical applications. The first principles consist of setting out the range of possible metrical structures which can be created from a common fast pulse (CFP) by grouping elements in either 2s or 3s at each structural level. Here, those metres are described in a number of different ways, each illuminating a different aspect of the structural properties. This facilitates the main goal of this research, to describe and characterise the types of relationships which can exist among them. This paper introduces a variety of those relationships, defines them, and assesses their validity in relation to both psychological and ethnographic considerations. In the course of discussing these relations, the theoretical need for core elements such as the CFP are also assessed.

Schenkerian analysis and the transcultural harmony of Hungarian verbunkos **Shay Loya** (City University London, UK).

Schenkerian analysts have made incursions into unlikely repertoires ever since articles appearing in the first two volumes of *The Music Forum* (1967 and 1970) extended the theory's reach to the twentieth century, and as far back as the twelfth. Yet a theory primed to demonstrate tonal directionality and structural depth seemed to be at odds with music that did not rely on sophisticated counterpoint and was tonally circular or static rather than teleological. Studies that have ventured to make Schenkerian theory relevant to the study of popular musics were therefore taken to task for being both overwrought and blunt, foisting a theory that was hopelessly insensitive to the musical qualities of the repertoire examined (Moore, 1993; Gallardo, 2000). Risking similar disapprobation, this paper examines the application of Schenkerian technique to the Hungarian verbunkos tradition in both its oral and written demonstrates modified Schenkerian manifestations. Specifically, it how techniques, stripped of Ursatz preconceptions, can help reveal both teleological and non-teleological qualities of these diverse but related repertoires, the liquid (non-) cadential meaning of 6/4 chords, and the challenge of polychordal sonorities. Using a simple method of cross-cultural multiple listening, I will question the received discursive boundaries that have traditionally divided the several types of oral and written verbunkos repertoires into different disciplines and modes of analysis, and argue that 'transcultural listening' that includes Schenkerian techniques offers a way of grasping the much-neglected harmonic aspect of the verbunkos phenomenon more fully. The further applicability of these principles to other harmonic repertoires and analytical techniques is an open question that invites further input from the audience.

Applying the generative theory of tonal music to world music idioms: an analytical approach to the polyphonic singing of Epirus

Costas Tsougras (School of Music Studies, Aristotle University of Thessaloniki, Greece).

Based on the premise that a considerable part of Lerdahl & Jackendoff's Generative Theory of Tonal Music (1983) rules are universal — meaning that the principles of music perception and cognition are the same for all experienced listeners regardless of the musical idiom in which they are experienced — the application of GTTM to musical idioms other than the Western classical one appears to be feasible. Of course, such an undertaking requires the formulation of idiom-specific well-formedness and preference rules, and the description of the idiom's special tonal hierarchy. These tasks may be accomplished through the analytical study of music specimens representing a certain idiom, and the description of its features in relation to the GTTM's components. This endeavour is further encouraged by the GTTM's flexibility as a reductional analysis methodology, stemming from the substitution of the schenkerian fundamental structure (Ursatz) with the tonally unspecialized and cognitively based normative structure, thus enabling its extensive use beyond its initial analytical range. Another enhancement to the theory towards this direction is the parallel theory of Tonal Pitch Space (Lerdahl, 2001), which aids the creation of tonal hierarchies and provides stability preference rules for the time-span-reduction and prolongational analysis. The chosen analytical object—the polyphonic singing of Epirus, a region of northern Greece—is an intrinsically polyphonic Balkan folk idiom based on anhemitonic pentatonic modes and performed by 2-voice to 4-voice groups, with each voice having a specific musical and narrative role. The reductional GTTM methodology applied reveals the idiom's harmonic background, phrasing/grouping norms and cadential formulas. It also discloses and explains its tonal hierarchy through a categorization of the produced modal sonorities by employing pitch-class set theory, TPS theory and the concept of intrinsic/sensory vs. cultural stability of events. The analysis is based on staff notation transcriptions found in archives or made by the author.

Connected musical and literary analysis: re-sounding the vocal traditions of the colonial Indian Ocean

[Panel 25]

How can we analyse sound once it has dissipated? How can we re-sound texts that were once sung or recited melodically, when the textual shell is all that remains? While literary scholars may hold in their hands the object of their study, music is gone forever once the last note has died away, leaving behind, at best, textual shades that require an Orpheus to breathe back into them an echo of their sonic vitality. This maxim becomes all the more true when attempting to access performances predating recording technologies, in traditions where musical notation has had comparatively little employment. The ERC Musical Transitions project aims in part to recover precisely such moments in India and the Malay world at a time when local traditions encountered European colonialism. Focussing on vocal traditions, in this panel we examine the intersecting worlds of Indian, Malay, and colonial music-making on both sides of the Bay of Bengal: demonstrating a wider spread of musical notation in the Indian context than has previously been appreciated; interrogating the processes through which music was analysed, canonised, and consumed; and bringing literary analysis to bear on the sonic traces that remain, often in unexpected places, in the textual archive. Fundamentally, we contend that making sense of the music of the eighteenth- and nineteenth-century Indian Ocean requires the connection and enmeshing of tools of musical analysis with those of literary analysis; and that the connected musical histories that thus emerge make sense of far more than sound alone.

The music in the text: North Indian song collections in the early-modern Indian Ocean Katherine Butler Schofield (King's College London, UK).

North Indian classical music is considered predominantly an oral tradition, with song compositions jealously preserved and passed down within the gharānā system in exclusive chains of oral/aural transmission that act to protect gharānadār musical property from mass dissemination. In reality, more than a century of sound recording has enabled widespread access to a considerable repertoire of gharānadār compositions, making the recent soundworld of Hindustani music substantively available for musical analysis. In sharp contrast, the assumption of orality and secrecy and the lack of detailed musical notations have stymied attempts to analyse the repertoire of the period before the advent of record sound. In this paper, however, I will show that the assumption of orality is substantially belied by the surprising eighteenth-century rise of large written collections of the song repertoire we now recognise as canonical to Hindustani music. These song collections were taken from live performance practice and circulated widely not only within the tradition's courtly heartlands in Delhi and Lucknow, but from Bharuch to Calcutta, Kathmandu to Hyderabad, and beyond India itself to the Malay courts of Aceh and Banten. Embedded in these songs' textual forms are all sorts of clues to how they were performed musically, as well as to their social, religious and political contexts. In this paper I will combine techniques of musical and literary analysis to reimagine how some of these songs might have sounded, but also to shed light on the circulation history of North Indian music in the early-modern Indian Ocean.

Beguiling voices: rediscovering the sound of nineteenth-century Malay literature **Jenny McCallum** (King's College London, UK).

It is hard to come by specific details on the historic musical practices of the Malays, a cultural group inhabiting the Straits of Malacca who had no tradition of musical notation or written theorization. Malay written texts have been a subject of scholarship since the colonial era, mined for information on history and politics. This paper re-examines these texts as sources on sound, refocuses attention on Malay manuscripts as sounding objects themselves, and highlights the power of the voice in this tradition. Malay literary texts are in fact very useful sources on Malay

epistemologies of sound, recording music's reception rather than its production, the aesthetics of sound and its effect on the listener. The voice is particularly important in this regard, and texts reveal the powers of Malay voices to move the heart, to persuade and beguile. Such descriptions are highly self-referential, as traditionally chronicles and ballads were recited from manuscripts to an eager gathering of listeners rather than read silently and alone. This paper also examines the influences of external forces on this tradition in the late nineteenth century. Increasingly close contact with Islamic centres in this era makes it pertinent to question the attitude of devout local scholars to sounding practices. Whilst Malay elites were increasingly exposed to European music, European colonisation perhaps affected this tradition most profoundly through the introduction of lithography and printing. This paper offers a reconsideration of the commonly-held idea that the beguiling Malay voices were 'silenced' by the introduction of this technology.

"Hide and Sikh", and other awful puns: European amateur dramatics and music making across the Bay of Bengal

David Lunn (King's College London, UK).

In 1892, Lieutenant Charles Fox Martin sailed from Madras to Penang to take up a position with the Perak Sikh Police Force in Taiping. His arrival was eagerly anticipated in the local English newspapers: not so much on account of his military prowess, but rather for his reputation as a humourist, columnist and theatrical impresario. Better known in those times and places by his nom de plume, "Ballyhooly Junior", Martin's comedic undertakings on both sides of the Bay of Bengal open a window onto the entertainments that Europeans in the colonies both consumed and produced. Drawing upon and linked to the musical and theatrical traditions and innovations of Victorian London, these were nevertheless distinctly localised forms, adapted to the experiences and world-views of the local expatriate communities. While the music itself remains difficult to trace or hear, we can catch snatches in sources as varied as newspaper reviews, playbills and lyric books of the period. Moreover, this paper will consider the position of these European plays, operas and concerts in the context of other, local forms of entertainment – Parsi theatre, wayang, etc – and the wider patterns of consumption and cultural interaction in these colonial cities. Mining the printed archive may thus be a way to imagine and re-sound the diverse yet also limited cultural cosmopolitanism of the late 19th century Imperial station.

Proliferating books and pruning culture: the analysis of Hindustani music in colonial Bengal

Richard David Williams (King's College London, UK).

Over the course of the nineteenth century musical scholarship represented a major component of North Indian print culture. In Calcutta Bengali intellectuals drew on a variety of historical and contemporary knowledge systems, from Indo-Persian treatises to European works on anatomy, to reframe Hindustani music. New musicological works combined analysis with innovations in notation and vast collections of song lyrics in order to approach Indian performance cultures systematically, but also to construct a new epistemic arena. This arena presented itself as comprehensive in its grasp of sub-continental 'high' culture, but also defined a regional conversation, with Bengali voices commenting on and critiquing other Bengali works. The final outcome of this process was a Bengali canonicity in the analysis and transmission of music that pervaded and shaped the wider field of Indian arts. By considering these musical publications in terms of South Asian book history this paper will discuss the print industry's relationship to musicology, and how the proliferation of genres both formalised a new intelligentsia, and re-formulated the content of Hindustani music, with particular respect to vocal traditions. Despite the innovations of the century and the significance of contemporary technologies to the proliferation of these works, the reconstruction of this industry gestures to the continuation of a longer, indigenous engagement with musical appreciation and analysis, and a more nuanced sense of colonial modernity.

ABOUT the KEYNOTE SPEAKERS

Professor Nicholas Cook

1684 Professor of Music, Faculty of Music, University of Cambridge

Nicholas Cook took up the 1684 Professorship in 2009. He was formerly Professorial Research Fellow at Royal Holloway, University of London, where he directed the AHRC Research Centre for the History and Analysis of Recorded Music (CHARM), and before that taught at the universities of Hong Kong, Sydney, and Southampton, where he also served as Dean of Arts. A musicologist and theorist, he holds separate degrees in music and in history/art history. His articles have appeared in leading British and American journals, and cover topics from aesthetics and analysis to psychology and popular culture.

His books, mostly published by Oxford University Press, include A Guide to Musical Analysis (1987); Music, Imagination, and Culture (1990); Beethoven: Symphony No. 9 (1993); Analysis Through Composition (1996); Analysing Musical Multimedia (1998); and Music: A Very Short Introduction (1998), which is published or forthcoming in fourteen other languages and to which a special issue of Musicae Scientiae was devoted. A collection of his essays appeared in 2007 under the title Music, Performance, Meaning: Selected Essays, while his book The Schenker Project: Culture, Race, and Music Theory in Fin-de-siècle Vienna (also 2007) received the Wallace Berry Award of the Society for Music Theory. He has also co-edited several collections, including Rethinking Music (1999), Empirical Musicology: Aims, Methods, Prospects (2004), and the Cambridge History of Twentieth-Century Music (2004). In recent years he has focussed in particular on music performance studies: his latest monograph, Beyond the Score: Music as Performance, was published by Oxford University Press in 2013, while co-edited collections in this area include The Cambridge Companion to Recorded Music (2009) and Music as Performance: New Perspectives Across the Disciplines (2013, coedited with the dramaturge Richard Pettengill). Outcomes of a recent study of recordings of Webern's Piano Variations, funded by an AHRC Fellowship, are forthcoming.

Cook's current work is turning towards social and intercultural perspectives on music, and 2014 he took up a British Academy Wolfson Research Professorship to work on a three-year project entitled 'Musical Encounters: Studies in Relational Musicology', the principal output of which will be a monograph of the same name. Other book projects currently in planning address musical creativity and digital multimedia. A former Editor of the *Journal of the Royal Musical Association*, Nicholas Cook was Chair of the Music Panel in the Higher Education Funding Councils' 2001 Research Assessment Exercise. He is a Fellow of the British Academy and of the Academy of Europe.

Professor Martin Clayton

Department of Music, Durham University

Martin Clayton is Professor in Ethnomusicology in Durham University. He studied at the School of Oriental and African Studies (SOAS) in London, where he obtained degrees in Music and Hindi (BA, 1988) and Ethnomusicology (PhD, 1993). His research interests include Hindustani (North Indian) classical music, rhythmic analysis, comparative musicology and early field recordings, British-Asian music and Western music in India. He previously worked at the Open University, and has taught a wide range of ethnomusicological courses at numerous other UK universities, besides contributing to OU teaching materials, and worked as Visiting Assistant Professor at

the University of Chicago. He was a member of the Music sub-panel for the 2008 Research Assessment Exercise, and is also a panelist for the 2014 Research Excellence Framework.

Professor Clayton directed the "Experience and meaning in music performance" research project, which was funded by the Arts and Humanities Award Council: the co-authored book of the same name is published by OUP in October 2013. He is also co-organiser of a British Academy-funded international network dedicated to the study of entrainment in music, with Dr Ian Cross (University of Cambridge) and Professor Udo Will (Ohio State University).

Martin served for many years as committee member for the *British Forum for Ethnomusicology* (BFE) and the *European Seminar in Ethnomusicology* (ESEM), and serves on several editorial boards including the journals Music Analysis and Music Performance Research.

Clayton's many important publications include his books, *Time in Indian Music: rhythm, metre and form in North Indian rag performance* (2000) and *Music, time and place: Essays in comparative musicology* (2007); the coedited collections *Music and Orientalism in the British Empire, 1780s to 1940s: Portrayal of the East* (2007), *The Cultural Study of Music: A Critical Introduction* (2nd ed. 2012) and *Experience and Meaning in Music Performance* (2013); contributions to major volumes such as *The New (Ethno)musicologies* (2008), *The Oxford Handbook of Music Psychology* (2009), *New Perspectives on Music and Gesture* (2011) and *The Cambridge History of World Music* (2013); and many significant articles, dealing with topics such as entrainment and music and gesture.

Dr Laudan Nooshin

Senior Lecturer, Department of Music, City University

Laudan Nooshin is a Senior Lecturer in Ethnomusicology in the Music Department at City University London, UK. She completed her BA in Music at the University of Leeds and her MMus and PhD, both in Ethnomusicology, at Goldsmiths College, University of London, where she subsequently taught until 1991. From 1993 to 2003 Laudan was Lecturer in Music and Course Director in the Department of Performing Arts, Brunel University. She joined the Music Department at City University in January 2004.

Laudan's research interests include contemporary developments in Iranian traditional and popular musics; gender issues, with particular reference to women musicians in Iran; neo/post-colonialism, Orientalism and the politics of cultural representation; globalisation; music and power; music and cultural identity; and music in Iranian cinema. Her PhD thesis was a study of creative performance in Iranian classical music and her writings have appeared as book chapters and as articles in journals including the *Journal of the Royal Musical Association, Ethnomusicology Forum* and *Iranian Studies*. Laudan has two edited volumes: *Music and the Play of Power in the Middle East, North Africa and Central Asia* (2009, Ashgate Press) and *The Ethnomusicology of Western Art Music* (2013, Routledge Press); her forthcoming monograph is entitled *Iranian Classical Music: The Discourses and Practice of Creativity* (Ashgate Press). Laudan regularly reviews CDs and writes features for *Songlines* magazine. Between 2007 and 2011, she was co-Editor of *Ethnomusicology Forum* (Routledge) and has also served on the following journal editorial boards: *Ethnomusicology Forum, Journal of the Royal Musical Association, Middle East Journal of Culture and Communication* and *Twentieth-Century Music.* In 2007, Laudan established the Middle East and Central Asia Music Forum at the Institute of Musical Research, University of London. She has been an active member of the British Forum for Ethnomusicology for almost 3 decades and has served several terms on its committee. She has also been a committee member of the National Association for Music in Higher Education.

CONCERT PROGRAMME

Day	Time	Place	Artist
1	14:00–14:25	G22, Senate House	Joe Browning and Kiku Day - Shakuhachi Duo
	14:30–14:55	G22, Senate House	Maya Youssef - Syrian Kanun
	17:00–17:30	Brunei Gallery Lecture Theatre	Segara Madu - Balinese Gendér Wayang
2	14:00–14:25	G22, Senate House	SOAS Min'yo Group & the London Okinawa Sanshinkai
	14:30–14:55	G22, Senate House	SOAS Thai Music Group
	17:30–17:50	Brunei Suite, or outside if the weather is fine	SOAS Korean Drumming Society – Samulnori
3	14:00–14:25	G22, Senate House	SOAS Silk and Bamboo Ensemble
	14:30–14:55	G22, Senate House	Kadialy Kouyate – Kora
	17:30–17:50	Brunei Suite	Hyelim Kim - Korean Flute
4	14:15–14:45	G22, Senate House	Jasdeep Singh Degun (sitar), William Hoffman (sarod), Gurchetan Singh (tabla) - Indian Classical Music
	17:00–17:30	Chancellor's Hall, Senate House	Sarabanda - Cuban Music

ABOUT the PERFORMERS

Shakuhachi duo – Joe Browning and Kiku Day

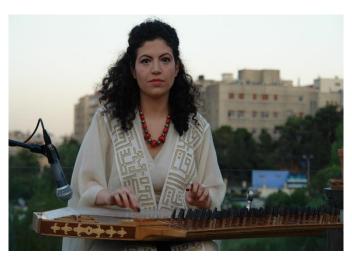


The shakuhachi has a varied musical life, encompassing folksong and film soundtracks, chamber music and contemporary compositions. It has a long-standing association with Zen Buddhism, and the oldest shakuhachi called pieces, honkyoku, connected with religious rituals and mendicancy. They are usually unpulsed solo pieces, centred around the miyako bushi mode (e.g. G, Aflat, C, D, E-flat) and characterised by shifting timbres and unusual

effects. The programme you will hear today aims to highlight the connections between old and new shakuhachi music by presenting unusual versions of *honkyoku* alongside contemporary pieces influenced by the traditional repertoire.

Shakuhachi player Kiku Day has a PhD in ethnomusicology from SOAS. Kiku studied shakuhachi with master Okuda Atsuya in Japan for 11 years. She has, since her return to Europe, been active in the dissemination of the shakuhachi and is presently chairperson of the European Shakuhachi Society. She has worked with composers and performers such as Takahashi Yūji, Roxanna Panufnik, Fred Frith, and Joanna MacGregor. Kiku is affiliated with the Interactive Minds Centre, Aarhus University where she continues her research into creativity, meditation and music. Photo by Steve Double. Joe Browning is a performer and academic, specialising in the shakuhachi and Javanese gamelan. He studied music at the University of York and later at SOAS, where he recently completed his PhD. Joe has studied shakuhachi with Kiku Day and Richard Stagg and has performed alongside koto, choirs, orchestras, and folksingers, as well as collaborating with composers and contemporary dancers.

Maya Youssef - Syrian Kanun



Maya Youssef comes from a family of artists. As a tenyear-old, she began her lifelong musical career with the Kanun. Two years later, she won Best Musician Award in Syria's Youth National Music Competition. With her talent gaining international prominence, Maya gave vibrant performances around the globe. As an acclaimed Kanun expert, Maya was invited in 2009 to teach her instrument and Theory of Arabic Music at the Department of Music and Musicology at Oman's Sultan Qaboos University. Early 2012, Arts Council of England recognized Maya as an "Exceptional Talent" among 300 artists from all over the world. Since then,

Maya gave performances at The South Bank, National Portrait Gallery, The Forge Camden, Brunei Gallery SOAS,

Amnesty International, The Vortex Jazz Club, Rich Mix, Royal Albert Hall among others. In addition, her work was featured on mbc, Dubai TV, Abu Dhabi TV, BBC Arabic Radio, Resonance FM, SOAS Radio, and BBC Radio 3. Currently, Maya is doing her masters in Ethnomusicology at SOAS, University of London, where she also aims to start a PhD in September 2014. Her activity in SOAS extends to teaching her instrument the Kanun and leading the SOAS Middle Eastern Ensemble. The Kanun (a 78 strings middle eastern plucked zither) is one of the main instruments of the traditional Arabic ensemble. Maya's style is rooted in the ancient and rich tradition of Syrian music. Her virtuosic solo repertoire varies from her own contemporary compositions to Syrian, Arabic, Turkish and Azeri pieces.

Segara Madu - Balinese Gendér Wayang



Segara Madu is a *gendér wayang* group based at SOAS, directed and taught by Nick Gray. Nick lectures on music at SOAS. He studied *gendér wayang* for several years with I Wayan Loceng in Sukawati, a village in south Bali famed for its shadow puppetry and the complexity of its *gendér* style. Two of us will be performing: Paula Friar and Nick Gray. *Gendér wayang* is the name given to a small quartet (or sometimes, as here, duo) of bronze metallophones, used in Bali to accompany the

shadow play (*wayang kulit*), a sacred drama based on stories from ancient Indian epics. It also serves as a ritual ensemble playing for life-cycle ceremonies, temple festivals, purification rituals and cremations as part of Bali's rich Hindu heritage. The playing technique in this miniature gamelan ensemble is very demanding, as players must damp the ringing notes with their wrists while executing high-speed figuration that interlocks between the instruments. Bamboo resonating tubes beneath the keys give the sound a unique resonance. The performance will include pieces from the Sukawati shadow play and ritual repertoire as well as from Tenganan in east Bali.

SOAS Min'yo Group & the London Okinawa Sanshinkai: Folk songs and dances of the Japanese islands



The London Okinawa Sanshinkai (performing Okinawan folk song and dance) and the SOAS Min'yō Group (mainland Japanese folk song and dance) both practice at SOAS and perform often in London and elsewhere. Members, of diverse backgrounds and ethnicities, include several past or present SOASians. Okinawa's leading instrument is the sanshin (3-string snakeskin lute; see photo), ancestor of the mainland Japanese shamisen; both will appear today, allowing a comparison of their structures and playing techniques. The Min'yō Group also features shakuhachi and shinobue bamboo flutes. Percussion includes *taiko* drums, Okinawa's *samba* 'castanets' and the mainland's *binzasara* concussion plaques. The SOAS Min'yō Group will choose from a variety of work, dance, story and celebratory songs. It's said that 'Folk song is the heart's hometown' (*Min'yō wa kokoro no furusato*); indeed, songs tend to link to specific places, often with verses of local praise. There will be a chorus or two for you to join in on. Hibiki Ichikawa will showcase the improvised Tsugaru shamisen style, now gaining popularity worldwide. The Sanshinkai will perform part of an Eisā dance suite. Each Okinawan community may have its own suite, often of ten or more songs. Eisā is traditionally performed for the summer ancestral festival, and now also in island-wide contests, often with dozens of dancers per team. Only a few of our 16-18 dancers can attend today. Lyrics may refer to Eisā itself, to love, to island life etc. For further information, search the web or contact SOAS's David Hughes (dh6@soas.ac.uk), whose interests led to the creation of both groups.

SOAS Thai Music Group





SOAS Thai music group is a group of students of various nationalities who are interested in Thai Classical Music. All Thai musical instruments located in SOAS were presented over 20 years ago by HRH Princess Maha Chakri Sirindhorn. The pieces being played in this event are Thai classical pieces with a mixture of romantic and lively songs. Thai classical singing will be performed together with the ensemble as well.





Jutamas Poprasit graduated with MA in music from the Faculty of Arts, Chulalongkorn University. She is currently completing her PhD in ethnomusicology at SOAS (sponsored by HRH Princess Maha Chakri Sirindhorn) and was actively involved from 2007–2012 in teaching a Thai classical music class at SOAS. During this time, she also led the SOAS Thai Music Group and the Thai Music Circle

in the UK. Suchada Sowat graduated with MA in music from the Faculty of Education, Chulalongkorn University. She is currently studying MMus ethnomusicology (sponsored by HRH Princess Maha Chakri Sirindhorn), teaching Thai classical music at SOAS, and leading both SOAS Thai Music Group and the Thai Music Circle in the UK. Great Lekakul is one of the members of Korphai band, which plays Thai traditional and contemporary music. He and his group have been invited to perform Thai music in several countries in Asia and Europe. Great is currently studying a PhD in ethnomusicology at SOAS, University of London. Pornpavee Trangcotchasan started learning Thai music when she was five years old and she has participated in both SOAS Thai Music group and the Thai Music Circle in the UK.

SOAS Korean Drumming Society - Samulnori



The SOAS Korean Drumming Society will be presenting a samulnori concert during the 2014 BFE conference. Samulnori is the genre of contemporary Korean percussion music, developed from the p'ungmul of traditional local percussion bands and now forms a significant part of the soundscape of today's Korea. For this genre of music, performers use the four core percussion instruments of traditional local percussion bands: two gongs – the small kkwaenggwari and the large ching, and two drums - the hourglass-shaped changgo and the barrel-shaped buk for the p'ungmul bands. For this concert, our society will

be offering three programmes for a soloist or a group for thirty minutes. The first is two *samulnori* rhythms; the regulating 'tasŭrŭm' and the swaying, dancelike 'kutkŏri'. These will be played by the society instructor and a founding member of the international Korean traditional percussion group DULSORI (Wild Beat), Jeunghyun Choi. The second is 'Samdo sŏlchanggo', a piece for four changgo combining the rhythms, which was developed from those performed by masters in three regions of Korea. The last programme is 'From yŏngnam to uttari'. This is a piece which combines two samulnori pieces, 'Yŏngnam nongak', a 'southeastern style' and the dramatic last movement of 'Uttari nongak', a 'central style', the movement featuring the call-and-response of two small gongs. Based at SOAS for more than ten years, we run a weekly practice session, organize regular instrumental workshops, and have performed at various cultural events. Today, we are proud to present to you dynamic rhythms of samulnori.

SOAS Silk and Bamboo Ensemble



The SOAS Sizhu 丝竹 (Silk & Bamboo) Ensemble has been running for over fifteen years, performing the Chinese urban folk chamber music style which can be seen and heard in the tea-houses of Shanghai. The ensemble consists primarily of string (silk - 丝) instruments, and woodwind (bamboo - 竹) instruments: Dizi (笛子) - transverse bamboo Flute, Erhu (二胡) - 2-stringed Fiddle, Pipa (琵琶) - 4-stringed plucked Lute, Sanxian (三絃) - 3-stringed unfretted plucked Lute, Sheng (笙) - free reed bamboo Mouth Organ, Xiao (萧) - end-blown bamboo Flute, Yangqin (扬琴) - struck Zither/Hammer Dulcimer, and the percussive Ban (板). The ensemble is made up of past and present SOAS

students, and regularly performs for events at various China Institutes; at Museums such as the Victoria & Albert Museum, Greenwich Maritime Museum, the Docklands Museum; and for festivals such as the Singapore Chilli Crab Festival, Leicester Square Buddha's Birthday. The ensemble also frequently conducts workshops for museums and schools around London and beyond.

Kadialy Kouyate – Kora



Kadialy Kouyate performs original music inspired by the West African griot repertoire. Born into the great line of Kouyate griots in Southern Senegal, Kadialy's mesmerizing kora playing and singing style have been welcomed in many prestigious venues. He has performed both as a soloist and as part of different ensembles at the Royal Festival Hall, O2 Arena, Union Chapel, WOMAD, Clarence House, and the Houses of Parliament. Kadialy has also made numerous radio appearances, among them: BBC Radio 3 'World Routes', Charlie Gillett's 'World of Music', and the BBC World Service. Since his arrival in the UK in 2005, Kadialy has been involved in numerous musical projects both as a collaborator and as a session musician, and has toured internationally through Europe, USA and Australia. He has taught Kora at SOAS for many years, to both undergraduates and postgraduates.

Hyelim Kim - 'Beyond taegum': Sounds of the Korean flute



Taegum performer, composer and researcher Hyelim Kim is opening new possibilities for Korean music by using the taegum. The taegum, a horizontal bamboo flute, is considered one of the most representative of Korea's traditional instruments. Kim is receiving attention for taking a leading role in breathing new life into Korean traditional music. She was selected as Pioneering Artist by the Korean Arts Council and Kumho Young Artist. She was also awarded the New York Omi Residency and was invited as a musician for a live session on BBC Radio 3's celebrated Late Junction and London Jazz Festival. Kim received her PhD from SOAS, University of London and teaches Ethnomusicology at the same university. This performance at the BFE/AAWM conference features diverse repertories from traditional to contemporary compositions to explain the way that Korean traditional music has been recontextualized in a contemporary and increasingly globalized world. www.hyelimkim.com

'Jugalbandi': Indian classical music Jasdeep Singh Degun, William Hoffman, Gurchetan Singh



Jasdeep is a young and upcoming Sitarist born and raised in Leeds, UK. Having studied Indian Classical vocals from a young age, Jasdeep started learning the Sitar at the late age of 15. He has acquired a deep insight into the art of Indian Classical music and continues to do so with his teacher, Ustad Dharambir Singh MBE. William Rees Hofmann has been playing and studying the Sarod for the past nine years under the tutelage of Shri Satyam Rai. He spent six years living and studying in India with his teacher, as well as earning a bachelors degree in Hindustani vocal. Gurchetan has been playing Tabla for over 12 years under the guidance of Shri Tarsem Singh, a disciple of the late Ustad Alla Rakha Khan. Through extensive time spent with his guru, Gurchetan has been lucky in receiving rare compositions and materials unique to the Panjabi Gharana, or school, of Tabla playing. 'Jugalbandi', or 'duet', is a performance of Indian Classical Music between two solo musicians. Jasdeep and Liam will be exploring the popular evening Raag Bageshri presenting compositions in Vilambit and Drut Teental. The three musicians are all currently music students at SOAS.

Sarabanda





Sarabanda play a range of Cuban music including "Son" from the 40s and 50s, as popularised by Buena Vista Social Club, through to modern day hot Timba and Salsa. Today we will perform in a stripped-down format of trumpet, bass, piano and vocals. The band has a strong link with SOAS: Sara and Elpidio run the SOAS Cuban Big Band, Orquesta Estelar, a glorious 35-piece wall of Cuban sound. Orquesta Estelar welcomes all-comers from SOAS and the wider community. Sara and Elpidio also teach performance students on the music degrees.

Elpidio Caicedo (Vocals/Bass) is a lynchpin of the UK salsa scene. Hailing from Buenaventura on the Colombian Pacific coast, he is much sought after in the UK and Colombia as a bass player and vocalist. Sara McGuinness (Piano) has been an integral part of the UK Salsa scene for many years, playing with a wide range of artists. In addition to Sarabanda she is the founder and bandleader of Grupo Lokito. She also works

extensively in education, teaching Cuban music courses in Havana and the UK. She teaches Sound Recording and performance in the SOAS music department. Yelfris Valdes (Trumpet) has recently relocated to London from Havana. There he was the trumpet player of leading son band Sierra Maestra for 10 years. He also played extensively on the Havana jazz scene.

ADDITIONAL INFORMATION

Getting around London

The conference venue is well-served by local trains and buses. The nearest underground stations are Russell Square, Goodge Street, Euston, Euston Square, Holborn and Tottenham Court Road. The "Transport for London" journey planner, available at http://www.tfl.gov.uk/, will give directions for journeys in London via public transport. Various mobile apps (e.g. Journey Pro, London Travel Deluxe) perform a similar function.

For taxis, delegates are advised either to hail a "black cab" from the street or else to book a taxi or licensed minicab. The following are licensed minicab companies which operate near the conference venue:

Covent Garden Cars	020 7240 1040
999 Minicabs	020 7388 0915
Addison Lee	0844 800 66 77
Euston Station Cars	020 7380 1200
West End Car Services	020 7734 8970
Spotty Cars	020 7383 3333

Conference wifi

There will be wifi available to delegates in the Senate House. Passwords change daily and will be displayed in the foyer.

In case of emergency

To call the emergency services (police, fire or ambulance) in the UK, dial 999.

DINNER ARRANGEMENTS

We have reserved 80-100 places across five local restaurants for each night of the conference. Reservation times and details of the restaurants are given below. Interested delegates will be invited to indicate their choice of restaurant by signing up each day. Student helpers will be assigned to walk delegates to the restaurants as a group. Reservations will be made under the name "Music conference".

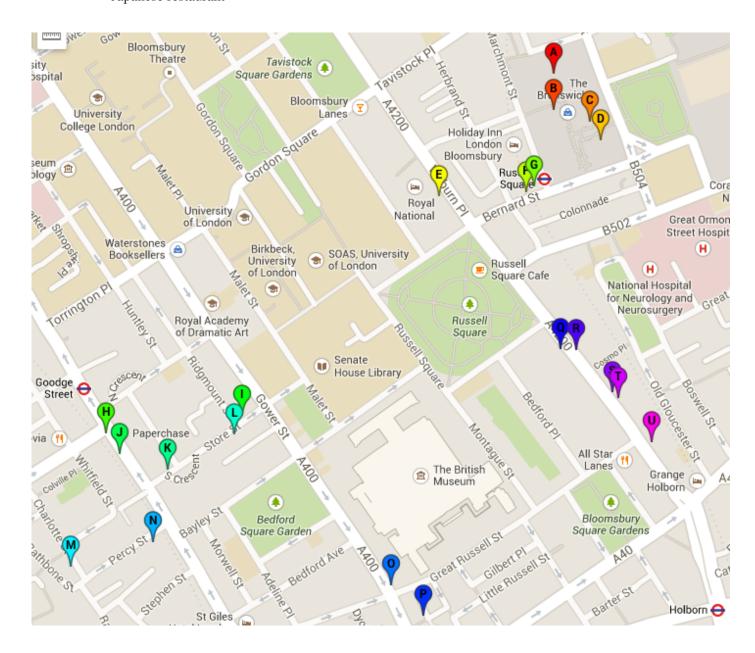
Having signed up on any given day, delegates are encouraged to honour their first choice and not swap restaurants or make alternative arrangements, as reservation numbers are limited. Delegates are also asked to clarify any food allergies and payment arrangements (splitting bills etc) before ordering, in order to help the restaurants manage the large group booking.

For those who prefer to make alternative dinner arrangements, some options are given below, including sandwich shops, restaurants and supermarkets. There are numerous other restaurants, not shown on the map, within walking distance of the conference venue, especially around Tottenham Court Road, Southampton Row and the Brunswick Centre (near Russell Square Underground Station).

Pre-booked restaurants All 5-10 minutes' walk from the conference		Other options		
venue.		Map	Name and description	
Reservation times (all restaurants): Tuesday July 1 st 20.15 Wednesday July 2 nd 19.30 Thursday July 3 rd 19.30 Friday July 4 th 18.30		A B	Waitrose Brunswick Centre, Marchmont Street, WC1N 1AE Supermarket Yo! Sushi Brunswick Centre, Marchmont Street, WC1N 1AE Japanese restaurant	
Map E	Restaurant China City 50 W. L. Di W. CHI OFF	C	Strada Brunswick Centre, Marchmont Street, WC1N 1AE Italian restaurant	
L	50 Woburn Place, WC1H 0JZ Chinese and Asian fusion restaurant Ristorante Olivelli 35 Store Street, WC1E 7BS	D	Hare and Tortoise Brunswick Centre, Marchmont Street, WC1N 1AE East and Southeast Asian restaurant	
K	Italian restaurant Busaba Eathai 22 Store St, WC1E 7DF	F	Pret a Manger Bernard Street, WC1N 1LE Coffee and sandwich shop	
N	Thai restaurant Sagar 17A Percy Street, W1T 1DU	G	Tesco Bernard Street, WC1N 1QJ Supermarket	
0	South Indian vegetarian restaurant Tas Bloomsbury 22 Bloomsbury St, WC1B 3QJ	Н	Eat 62 Tottenham Court Road, W1 Sandwich shop	
22 Bloomsbury St, WC1B 3QJ Turkish restaurant Please note that <i>Tas Bloomsbury</i> is only reserved for dinner on July 1 st and 2 nd .		I	Byron 6 Store Street, WC1E 7DQ Hamburger restaurant	

Other options (cont.-)

Map	Name and description	Map	Name and description
J	Marks and Spencer 55 Tottenham Court Road, W1 Supermarket	Q, R, S, T	Italian restaurants Southampton Row
M	Pizza Express 7-9 Charlotte Street, W1T 1RB Italian restaurant	U	Hason Raja 84 Southampton Row, WC1B 4BB Indian restaurant
P	Wagamama 4 Streatham Street, WC1A 1JB Japanese restaurant		



ABOUT the PARTICIPATING ORGANISATIONS

Analytical Approaches to World Music (AAWM)

On February 19-21, 2010, the First International Conference on Analytical Approaches to World Music convened on the campus of the University of Massachusetts Amherst (AAWM 2010). There, scholars from five continents representing the disciplines of music theory, ethnomusicology, musicology, cognitive psychology, computer science, and mathematics, as well as performers from a diverse array of musical cultures and traditions, came together with a common desire to engage in a unique cross-cultural and interdisciplinary dialogue, and in so doing, to promote and further enhance our collective understanding of the vast body of music we in the west commonly refer to as "world" music. What resulted was a compelling discourse that exceeded the expectations of all involved, and forcefully prompted the organizers to make the AAWM conference a biennial event.

Motivated by the growing enthusiasm and interest generated by AAWM 2010, in Fall 2011 the online journal Analytical Approaches to World Music (AAWMjournal.com) was established in attempt to capture, sustain, and further extend the same types of innovative, interdisciplinary scholarship exhibited at the conference only in a written format that is easily accessible to the widest possible audience while simultaneously providing a valuable forum for the stimulating exchange of ideas amongst scholars and musicians from across the globe.

Other related developments followed including the formation of the Society of Music Theory Special Interest Group On Analysis of World Music (2011); The Second International Conference on Analysis of World Music (AAWM 2012, Vancouver); the Society of Ethnomusicology Special Interest Group on Analysis of World Music (2012); and creation of a Chinese language version of the AAWM Journal (2013).

It is with great enthusiasm that we now partner with The British Forum for Ethnomusicology to present our joint conference Analysis, Cognition, and Ethnomusicology (AAWM 2014 / BFE 2014) which promises to be the most exciting installment of the AAWM conference series to date. As always, we proudly dedicate all AAWM activities to the memory of Fabrizio Pellizzaro Ferreri, a jazz pianist, composer and ethnomusicologist whose innovative analytical approaches and cultural perspectives provided a powerful shaping force in the development of AAWM.

http://aawmconference.com/ http://www.aawmjournal.com/

The British Forum for Ethnomusicology (BFE)

The British Forum for Ethnomusicology celebrates our forty-second annual meeting at this year's Analysis, Cognition and Ethnomusicology conference.

The International Folk Music Council (IFMC) was set up in London in 1947, and the BFE emerged as the IFMC UK Chapter in 1973. When the IFMC changed its name to the International Council for Traditional Music (ICTM) in 1981, we became the ICTM UK Chapter. We published our first newsletter in December 1974 and this became a bulletin in January 1983. When volume and content of the bulletin outgrew the original format, The British Journal of Ethnomusicology was born in 1992. As the ICTM UK Chapter gained confidence and international esteem, in 1995 the UK membership opted for our present name: The British Forum for Ethnomusicology (BFE). The journal quickly developed a prestigious international profile and in 2004 Routledge began to publish it with the new

branding Ethnomusicology Forum. The journal recently expanded its page count and continues to attract high quality and innovative ethnomusicology scholarship from around the world.

The BFE remains to be the affiliate National Committee to the ICTM, but also has strong links with other ethnomusicology organisations around the world, including The Society for Ethnomusicology (SEM) in the USA (where the BFE hosts a High Tea at their annual conference), along with ethnomusicological groups in neighbouring countries. We held our April 2013 conference in Belfast jointly with the ICTM (Ireland), and in July 2015 the BFE will hold our conference in Paris jointly with La Société française d'ethnomusicologie (SFE). We also have strong links with the Royal Musical Association (RMA) (our student members hold joint musicology-ethnomusicology study days and conferences) and The Royal Anthropological Society (RAI). The RAI and BFE have recently reformed an ethnomusicology committee, which initially met 6 August 1953 'to consider what action [should] be taken for the encouragement of this branch of anthropology.'

The BFE's mission is to advance the study, practice, documentation, preservation and dissemination of all and any music. BFE is now a body fiscally autonomous from any other organisation, and membership is open to anyone interested in the study of music and dance from all parts of the world. Our membership is international and comprises individuals and institutions. We hold two conferences a year, including our annual conference (traditionally during the Easter break, but in July in 2014 and 2015) and a one-day conference, usually in or either side of November.

This year, we are excited to partner with our transatlantic friends, Analytical Approaches to World Music (AAWM) as well as our British colleagues Society for Music Analysis (SMA) and Centre for Music and Science (CMS). The meeting of diverse music disciplines and research approaches promises to push the bounds of ethnomusicology, yet again.

Amanda Villepastour (BFE Chair, July 2014) http://www.bfe.org.uk/

The Institute of Musical Research (IMR)

The Institute of Musical Research is one of the ten Institutes which make up the School of Advanced Study at the University of London. Although nested within the University, at Senate House, the IMR has a national role. It is funded by the Higher Education Funding Council for England to promote research from all UK institutions of Higher Education, facilitate research networks and provide training for postgraduate students. The IMR welcomes visiting scholars, provides links to the wider musical community, encourages cross-disciplinary projects, and enhances research impact through public events.

http://music.sas.ac.uk/

The Department of Music, SOAS, University of London

The School of Oriental and African Studies, University of London is the only Higher Education institution in Europe specialising in the study of Asia, Africa and the Middle East. SOAS is home to 5,000 students from 133 countries on campus, and the largest concentration of specialist staff (300+ academics) concerned with the study of Africa, Asia and the Middle East at any university in the world. The Department of Music, with around 100 students, eight academic staff and a number of associate researchers and performance teachers, is the largest centre for ethnomusicology in Europe. We offer degree programmes at all levels: BA in Music, or in Music and another

subject; MMus in Ethnomusicology or Performance; MA in Music in Development; and PhD in Music. A new inter-disciplinary MA programme in Global Creative and Cultural Industries, combining music, media and visual arts, was launched in 2013, and a new BA programme in Global Popular Music will begin in 2015. Teaching and research in ethnomusicology in SOAS draw on the rich variety of music that can be found in multicultural London, and students can also take advantage of the unique array of courses in the languages and cultures of Asia and Africa offered at SOAS.

http://www.soas.ac.uk/

The Centre for Music and Science, Faculty of Music, University of Cambridge (CMS)

The Centre for Music & Science is housed in its own purpose-built wing of the Music School, comprising a fully equipped recording studio, computer room and research space. It is led by Ian Cross (Director) and Sarah Hawkins, and supports technology-based graduate and staff research and teaching in music that requires technological resources, particularly research linking the field of music with psychology, speech science, acoustics, computer science and neuroscience. It also provides a base for collaborative research with other departments in Cambridge and with those in outside institutions. In the CMS we explore musicality as a fundamental human capacity. We investigate the full range of musical behaviours from private listening to interacting with others, whether in expert performance or just having fun. Music is not just sound: it is dynamic pattern in embodied minds, movement, and social interactions; it is shaped by biology and the cultures that we inhabit. In the CMS we study music from all these perspectives. We aim to identify its relationships with other domains of human life, including speech and language, with a particular focus on music as communicative interaction.

http://cms.mus.cam.ac.uk/

The Society for Music Analysis (SMA)

The Society for Music Analysis (SMA) is a UK-based international organisation dedicated to music theory and analysis. It is affiliated with the journal *Music Analysis* and support and organise a regular programme of events, including the annual Theory and Analysis Graduate Students (TAGS) Conference, the Music Analysis Summer School (a residential course taught by international experts), and other Music Analysis Conferences ('MACs') and symposia. The SMA welcomes interests in all musical repertoires and cultures and promotes music theory and analysis in the broadest sense. We are delighted to co-sponsor the AAWM/BFE 2014 Conference and to deepen our connections with both organizations. The SMA will also be represented by three members who will present papers in the 'Traversing Geographic and Disciplinary Continuums' panel.

http://www.sma.ac.uk/

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