

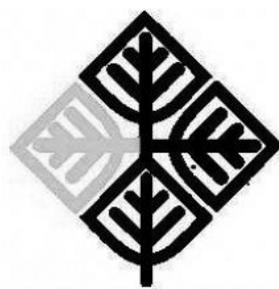
MUSIC AND SPATIALITY

The 13th Biennial International Conference on Music Theory and Analysis

Department of Music Theory, Faculty of Music

Belgrade, October 4–6, 2019

Conference Program and Abstracts



Faculty of Music
University of Arts
Belgrade
2019

MUSIC AND SPATIALITY

Space is omnipresent in human life, but we could also say that the omnipresence of human life itself – embodied in a set of relationships emerging both from the very physicality of the human body and the virtually infinite scope of human actions, activities and their products – delimits and constitutes space. Space as related to music can be thought of in both ways. On the one hand, space – speaking in strictly physical terms – is omnipresent in creating, performing, listening and theorizing/contemplating/investigating music.

However, within a given physical space there can exist politically, ideologically, or discursively differently constituted spaces of the aforementioned domains of musical practice. In that sense, space is music's surrounding, 'external' field within and by which music is constituted.

On the other hand, the omnipresent relationships between the different domains of musical practice – embodied in the 'musical' products of human actions and activities – establish the 'coordinates' of a distinct musical space: its structures and hierarchies, density, volume and dynamics, surface and depth, ups-and-downs, perspectives on and perspectives from it. In other words, music is essentially, inevitably and permanently bound to space, both the one it exists in and the one it creates itself.

Since antiquity, the notion of space (the Greek *khôra* or the Latin *spatium*) has occupied human thought, entering from early modern times into philosophical and scientific discourse in ever more lively ways. Whether conceived in absolute, relational or relativistic terms, whether comprehended in the purely physical or in a complex conceptual sense, the notion of space has provoked and inspired discussion and argument. With respect to music, it has perhaps been more frequently invoked, characterized and examined in relation to the twentieth-century music and from the perspective of the twentieth-century musical thought, but it is by no means confined to them. Music's spatial qualities transcend specific styles and compositional techniques. In elucidating music, spatial characterizations enter musical discourses more or less intentionally and with different degrees of the theorists' awareness toward their role in forming the recipient's understanding and experience of music and its properties (think of, for example, ancient cosmology or the first theories of musical style).

The conference *Music and Spatiality* aims at contributing to and observing this rich and diverse field from all of these perspectives, which should also be understood in light of the specific history of the Belgrade music theory conference. Namely, the notion of space has in certain ways already been addressed in relation to main themes of two of our previous conferences (*Musical Semiotics – 40 years after /2013/* and *Music and Temporality /2015/*). For our 2019 conference, with the intention of bringing the notion of space to the forefront of our theoretical and analytical attention, we suggest the following topics:

- space in music between the physi(ologi)cal and philosophical;
- genesis, history and meanings of the notions of space and space-related terms in music (high, low, broad, narrow, projection, inversion, distance, step, skip, symmetry, golden ratio, etc.);
- perceptual, cognitive, psychoanalytic and other psychological aspects of musical space;
- dimensions of music: horizontal, vertical, unified. Musical space-time;
- pitch space: physical, geometrical, algebraic models. Operations in pitch space. *Tonnetz*. Neo-Riemannian theories;
- musical representations of space;
- spatial aspects of musical notation;
- disciplinary aspects of musical space: space as related to harmony, counterpoint, form;
- spaces of music theory and analysis.

Keynote speakers:

Ildar Khannanov, Professor of Music Theory, Peabody Institute, Johns Hopkins University

Nico Schüler, University Distinguished Professor of Music Theory and Musicology, School of Music, Texas State University

Dmitri Tymoczko, Professor of Music, Department of Music, Princeton University

Program Committee:

Denis Collins, University of Queensland, Australia

Arnie Cox, Oberlin College and Conservatory of Music, USA

Márta Grábocz, Université de Strasbourg, Alsace, France

Annegret Huber, Universität für Musik und darstellende Kunst, Austria

Gesine Schröder, Universität für Musik und darstellende Kunst, Austria

Benedict Taylor, University of Edinburgh, UK

Ivana Ilić, Univerzitet umetnosti (University of Arts in Belgrade), Serbia

Jelena Mihajlović-Marković, Univerzitet umetnosti (University of Arts in Belgrade), Serbia

Miloš Zatkalik, Univerzitet umetnosti (University of Arts in Belgrade), Serbia

Organization Committee:

Lazar Đorđević, Faculty of Music, University of Arts in Belgrade, Serbia

Ivana Ilić, Faculty of Music, University of Arts in Belgrade, Serbia

Tijana Ilišević, Faculty of Music, University of Arts in Belgrade, Serbia

Jelena Jelenković, Faculty of Music, University of Arts in Belgrade, Serbia

Jelena Mihajlović-Marković, Faculty of Music, University of Arts in Belgrade, Serbia

Atila Sabo, Faculty of Music, University of Arts in Belgrade, Serbia

Miloš Zatkalik, Faculty of Music, University of Arts in Belgrade, Serbia

MUSIC AND SPATIALITY

The 13th Biennial International Conference on Music Theory and Analysis
Department of Music Theory, Faculty of Music
Belgrade, October 4–6, 2019

Conference Program

Preconference program

Preconference program venue:

Faculty of Music, 50 Kralja Milana Street, room No. 40

Workshop: <i>Computer-Assisted Music Analysis With an Emphasis on Spatiality in Music Performance Practice</i> Conference leader: Prof. Nico Schöler , School of Music, Texas State University, San Marcos, USA	
WEDNESDAY–THURSDAY, OCTOBER 2–3	
Group projects: “Expressive Timing in Music: A Case Study on the Differences Between Performers” “Expressive Timing in Music: A Case Study on the Differences Between Performances” “Analyzing Rubato in Music Performances” “How ‘blue’ are Blue Notes?” “Analyzing Tempo in Performances of Music” “A Critical Assessment of Automatic Onset Detection” “Conductors’ Influence on Tempo, Timing, and Character of Orchestra Performances”	

Conference program

Conference venue:

Rectorate of the University of Arts in Belgrade

29 Kosančićev venac Street

FRIDAY, OCTOBER 4	
9.00–19.00	Registration (Main Hall, 1 st floor)
10.00–10.15	Opening Address (Ceremonial Hall) Mirjana Nikolić , Vice-rector of the University of Arts in Belgrade Zoran Božanić , Head of the Department of Music Theory Denis Collins , Member of the Program Committee
10.15–11.15 KEYNOTE LECTURE (Ceremonial Hall) Dmitri Tymoczko Department of Music, Princeton University, USA <i>Towards a Topology of Music</i>	
11.15–11.30	Coffee break

SESSION 1 (Ceremonial Hall) <i>Dimensions of Music 1</i> Chair: Miloš Zatkalik		SESSION 2 (Senate Room) <i>Dimensions of Music 2</i> Chair: Nico Schüler	
11.30–12.00	Pieter C. van den Toorn University of California, Santa Barbara, USA <i>Irregular Accents and Spaces in Stravinsky</i>	11.30–12.00	Aleksandra Vojčić University of Michigan, Ann Arbor, USA <i>Time-Space in Pulse-Stream Forms</i>
12.00–12.30	Laura Emmery Emory University, Atlanta, USA <i>Space as a Compositional Determinant in Elliott Carter's Third String Quartet</i>	12.00–12.30	Tijana Ilišević University of Arts in Belgrade, Serbia <i>It Is, Actually, Crystal Clear!</i>
12.30–13.00	Georges Bériachvili The Conservatory in Houilles, France <i>Phenomenology of Musical Space and Theory of Musical Gesture: Conceptual Linking and Analytical Applications for the 20th-Century Avant-Garde Music</i>	12.30–13.00	Gregory Marion University of Saskatchewan, Saskatoon, Canada <i>Spatiality in the Adagio of Mahler's Symphony X</i>
13.00–13.30	Agnieszka Draus Academy of Music in Kraków, Poland <i>Music in the Urban Soundspace. The Case of Campanae Cracovienses for 25 Cracovian Church Bells by Marek Stachowski</i>	13.00–13.30	Jelena Jelenković University of Arts in Belgrade, Serbia <i>Aspects of Reconfiguration of Pastoral Topic in the Instrumental Works by Serbian Female Composers</i>
13.30–15.00	Lunch break		

SESSION 3 (Ceremonial Hall) <i>Musical Representations of Space</i> Chair: Ivana Ilić		SESSION 4 (Senate Room) <i>Perceptual, Cognitive.../Pitch-Space</i> Chair: Laura Emmery	
15.00–15.30	Srdan Teparić University of Arts in Belgrade, Serbia <i>Spatial-Temporal Relations as Factors of Constructing the Narrative Structure of the Textual Whole on the Example of the Song Die Darstellung Mariä im Tempel by Paul Hindemith</i>	15.00–15.30	Hyun Höchsmann East China Normal University, Shanghai, China <i>“Spazio Sentito” – “Spaces Heard”: From Varèse to Luigi Nono</i>
15.30–16.00	Dorian Mueller University of Michigan, Ann Arbor, USA <i>Exploring Musical Narrative Space in a Chopin Nocturne</i>	15.30–16.00	Nikola Komatović Independent researcher <i>Do You Recognize a Callsign? Some Ideas Toward the Reconciliation of Historical Contextualization and Modern Analytical Approaches in the Perception of Octatonic Collections</i>
16.00–16.30	Predrag Repanić University of Arts in Belgrade, Serbia <i>On Dimensionality of Movable Counterpoint</i>	16.00–16.30	Haruki Noda University of Music and Performing Arts Vienna, Austria <i>Rameau the “Spectralist”. Pitch Space Related Anomalies in Rameau’s Musical Works</i>
16.30–17.00	Coffee break		
17.00–18.00	Presentation of the results of the Workshop <i>Computer-Assisted Music Analysis with an Emphasis on Spatiality in Music Performance Practice</i> (Ceremonial Hall)		
18.00–19.00	Coctail Dinner		
20.00	Concert: 28th International Review of Composers (Studentski kulturni centar /Students’ Cultural Center/, Main Hall, 48 Kralja Milana Street)		

SATURDAY, OCTOBER 5			
9.00–18.00	Registration (Main Hall, 1 st floor)		
9.30–10.30			
KEYNOTE LECTURE (Ceremonial Hall)			
Nico Schüler School of Music, Texas State University, San Marcos, USA			
<i>Orientation Processes and Perspectivism in the Spatiality of Music-Theoretical Research: Reflections on the Plurality of Modern Methods and Methodology of Music Analysis</i>			
10.30–11.00	Coffee break		
SESSION 5 (Ceremonial Hall) <i>Spaces of Music Theory and Analysis</i> Chair: Jelena Mihajlović-Marković		SESSION 6 (Senate Room) <i>Between the Physi(ologi)cal and Philosophical</i> Chair: Srđan Teparić	
11.00–11.30	Bert van Herck New England Conservatory, Boston, USA <i>Music and Spatiality: Lichtbogen by Kaija Saariaho</i>	11.00–11.30	Jane Clendinning Florida State University, Tallahassee, USA <i>Physical Geography of Musical Instruments: Gesture, Embodiment, Musical Memory, and Music Theory</i>
11.30–12.00	Monika Karwaszewska Stanislaw Moniuszko Academy of Music in Gdansk, Poland Piotr Rojek Karol Lipinski Academy of Music in Wrocław, Poland <i>The Intermedial Space in The Heart Piece – Double Opera by Krzysztof Knittel and John King</i>	11.30–12.00	Eva-Maria de Oliveira Pinto University of Music Franz Liszt, Weimar, Germany <i>Organ Rooms. Organological, Music- Immanent, Philosophical- Psychological and Cultural- Geographical Aspects of the Instrument Organ and Its Spatiality</i>
12.00–12.30	Natalia Szwab Academy of Music in Kraków, Poland <i>Witold Lutosławski's Idea in the Music of Paweł Szymański. The Concept of Musical Space</i>	12.00–12.30	Giovanna Carugno “Rinaldo Franci” Conservatory of Siena, Italy <i>Theaters, Chambers, and Churches. Unraveling the Concept of Musical Spatiality in the Early Baroque Era</i>

12.30–13.00	Dimitar Ninov Texas State University, San Marcos, USA <i>Interior Cadences in the Sentence of Schoenberg</i>	12.30–13.00	Sylwia Makomaska University of Warsaw, Poland <i>Music as “a Form of Architecture”. On the Concept of Musicscape</i>
13.00–14.30	Lunch break		
SESSION 7 (Ceremonial Hall) <i>Aspects of Musical Space 1</i> Chair: Dimitar Ninov		SESSION 8 (Senate Room) <i>Aspects of Musical Space 2</i> Chair: Jan Philipp Sprick	
14.30–15.00	Ulf A. S. Holbrook RITMO Centre for Interdisciplinary Study on Rhythm, Time and Motion, University of Oslo, Norway Emil Kraugerud University of Oslo, Norway <i>Distances and Proximities in Acousmatic Spatiality</i>	14.30–15.00	Nataša Crnjanski University of Novi Sad, Serbia Darko Tomaš University of Novi Sad, Serbia <i>Musical Perception and Visualization</i>
15.00–15.30	David Bard-Schwarz University of North Texas, Denton, USA <i>Music and Spaces of Disavowal: Schoenberg’s Erwartung</i>	15.00–15.30	Martin Vishnick Independent researcher <i>Auditory and Spectral Perception</i>
15.30–16.00	Anna Aleksandra Gluc Academy of Music in Kraków, Poland <i>Stretching out an Instrumental Space – Simon Steen-Andersen’s Piano Concerto</i>	15.30–16.00	Karolina Dąbek Academy of Music in Kraków, Poland <i>Spatial Perception of Natural Phenomena as an Immersive Experience in Iannis Xenakis’ Terretektorh</i>
16.00–16.30	Coffee break		
16.30–17.00	Jessica Sommer Ball State University, Muncie, USA <i>Space and Time on Stage: Embodying Britten’s Ghosts in Turn of the Screw</i>	16.30–17.00	Bree Guerra University of Texas, Austin, USA <i>The Feel of the Future: Embodying Expectation and Enacting Virtual Worlds in Musical Expression</i>

17.00–17.30	Mariam Asatryan University of Pavia, Italy; Institute of Arts of the National Academy of Sciences of the Republic of Armenia <i>Spatial Dimension in Giacinto Scelsi's One-note Style</i>	17.00–17.30	Marcin Strzelecki Academy of Music in Kraków, Poland <i>Spatial Hearing in Music, Movie, Soundtracks, Video Games and Urban Soundscapes</i>
17.30–18.00	Jelena Janković Beguš University of Arts in Belgrade, Serbia <i>Sonorous Architectures of Iannis Xenakis</i>	17.30–18.00	Emma-Kate Matthews University College London, UK <i>Calibrating Spatial Typologies with Musical Ideas in Composition and Performance</i>
20.00	Conference Dinner (Restaurant: <i>Little Bay</i> , 9a Dositejeva Street)		

SUNDAY, OCTOBER 6

9.00–11.00	Registration (Main Hall, 1 st floor)		
9.30–10.30 KEYNOTE LECTURE (Ceremonial Hall) Ildar Khannanov Peabody Institute, Johns Hopkins University, USA <i>Directionality and Extension: A Sketch for Musical Topology</i>			
10.30–11.00	Coffee break		
SESSION 9 (Ceremonial Hall) <i>Disciplinary Aspects of Musical Space 1</i> Chair: Jane Clendinning		SESSION 10 (Senate Room) <i>Disciplinary Aspects of Musical Space 2</i> Chair: Ildar Khannanov	
11.00–11.30	Jan Philipp Sprick University of Music and Performing Arts Hamburg, Germany Roberta Vidić University of Music and Performing Arts Hamburg, Germany <i>(Re)compositional Strategies and Sonic Architecture in Palestrina's, Anerio's and Soriano's Missa Papae Marcelli</i>	11.00–11.30	Nicholas James Hunter The University of Queensland, Brisbane, Australia <i>Form and Function as Virtual Measures of Musical Spatiality</i>

11.30–12.00	Denis Collins The University of Queensland, Brisbane, Australia <i>New Tools for Old Music: Supervised Computer Learning and the Critical Editing of Early 17th-Century Roman Music Prints</i>	11.30–12.00	Ivana Ilić University of Arts in Belgrade, Serbia <i>Ubi sunt dracones? Spatial Representations of Form in Serbian Music Theory</i>
12.00–12.30	Tijana Vukosavljević University of Arts in Belgrade, Serbia <i>Tonal Dynamics as a Manifestation of Inner Musical Space</i>	12.00–12.30	Koichi Kato Independent scholar <i>In Search of Schubertian Cyclicality in Sonata Form</i>
12.30–13.00	Jelena Mihajlović-Marković University of Arts in Belgrade, Serbia <i>Harmonic Systems of Prokofiev: Tonal, Modal, and Spaces In-between</i>	12.30–13.00	Ivana Medić Serbian Academy of Sciences and Arts; Centre for Russian Music, Goldsmiths, University of London, UK <i>The Expansion of Time and Space in Franz Schubert's Sonata in A Minor D. 845</i>
13.00–13.15	Coffee break		
13.15–13.45	Presentation (Ceremonial Hall) Gilles Baroin ENAC (National School for Civil Aviation) Toulouse; LLA-Creatis, Literature, Languages and Art, University of Toulouse, Federal University of Toulouse, France <i>Hyperspheres and Musical Structures</i>		
13.45–14.00	Closing remarks		

Postconference time in Belgrade

16.00–18.00	Visit to the Museum of Contemporary Art: <i>The Cleaner</i> by Marina Abramović (10 Ušće Street)
20.00	Concert: 28th International Review of Composers (Studentski kulturni centar /Students' Cultural Center/, Main Hall, 48 Kralja Milana Street)

Postconference program

Postconference program venue:
Faculty of Music, 50 Kralja Milana Street

<p style="text-align: center;">LECTURES</p> <p style="text-align: center;">Pieter C. van den Toorn, Emeritus Professor of Music, University of California, Santa Barbara, USA</p>
<p style="text-align: center;">MONDAY-TUESDAY, OCTOBER 7-8</p>
<p style="text-align: center;">The Rite of Spring <i>Revisited</i> <i>Stravinsky's Les Noces; Remarks on Its Inception</i></p>

MUSIC AND SPATIALITY

The 13th Biennial International Conference on Music Theory and Analysis
Department of Music Theory, Faculty of Music
Belgrade, October 4–6, 2019

Abstracts and Biographies

Keynote Speakers

Ildar Khannanov

Peabody Institute, Johns Hopkins University, USA
etudetableau@gmail.com

Directionality and Extension: A Sketch for Musical Topology

There is no such *thing* as musical space. Baruch Spinoza suggested that the quality of *extension* characterizes all real things, but there are some phenomena (in his discussion—epiphany) that are not extensions. They exist but do not manifest such aspect of reality. Perhaps, this is just a partial, circumstantial argument (or *evidence*), that aims at something important but difficult to grasp. The unsurpassable complexity of mapping music onto visual element, and in general, of theorizing on music, has been helped to avoid by the great invention—musical notation. It happened not at once and took centuries to evolve, for an understandable reason: the discovery of notation nears the impossible—mapping of the non-existent object. Mapping as such is rather simple if it deals with something that has the *extension*. Mapping of the musical event on visual domain should not be possible, yet it happens. One has to admit, though, that the five-line notation that has been capitalized on by the modern geometries of music is the latest product. It reflects the Cartesian revolution, a forceful bringing-together of the heterogeneous world into flat and evenly-segmented two-dimensional plane. This type of notation promises rigorous scientific knowledge of music but results in creation of ultimate simulacra, calculation and measuring the dots of ink on paper. Other, older types of musical notation resist such violent transformation: for example, the Orthodox Greek monody is expressed in graphic signs of non-Cartesian nature: *bareia* and *oxeia* do not map musical expression on a plane; rather they reflect the sense of orientation and directionality in a non-existent space. Harmony, since Heraclitus, has been the agonal activity in human life, including music. *Aeons* end with *ekpyrosis*, peace is war, tumult, constant flow. Psychology cannot reconcile real physical movement with its psychological image (according to Henri Bergson and Gilles Deleuze). Thus, geometry is less appropriate in music than topology—*analysis situs*. Instead of points, limits and measured segments, music offers *topoi*, neighborhoods, manifolds, and directionality that mix together movement and affect. Both rely on visualizations; the former does it directly, the latter in a more mediated fashion. In general, a *visual metaphor* has been a useful tool in conquering nature by natural sciences; it carries an imminent danger for other aspects of humanity (the concern about which is clearly expressed in the twentieth-century philosophy).

Ildar Khannanov earned his PhD and MA in music theory at the University of California, Santa Barbara in 2003, with his dissertation “Russian methodology of music theory and analysis” under the supervision of Pieter C. van den Toorn, Michael Beckerman, and Yuri Kholopov. In 1993, Khannanov completed his study at aspirantura of Moscow State Tchaikovsky Conservatory with his candidate dissertation “Non-verbal specificity of music,” under the supervision of Yuri Kholopov and Valentina Kholopova. Khannanov earned his undergraduate degree in music theory, Diploma of the Moscow State Tchaikovsky Conservatory, in 1988. His studies prior to conservatory include the programs in piano, theory and composition at Ufa Specialized Music School (graduated in 1982). He studied philosophy with Jacques Derrida at the University of California, Irvine from 1997–2001.

Khannanov is currently Vice-Chair of Scientific Committee and one of the founders of the Russian Society for Theory of Music. He is also a member of the Organizing Committee of the European Music Analysis Conference. His other engagements include work as an editor of the journal *Music Scholarship/Problemy Muzykal'noi Nauki* (2007–2013), as an ethnomusicologist at the Bashkirian Branch of the Russian Academy of Sciences (1988–1991) and as a church music director and organist at St. Lukes Episcopal Church in Annapolis.

Khannanov has been teaching core undergraduate theory sequence and a number of graduate seminars in theory of Russian music in the United States for the past fourteen years and has presented papers on topics of Russian music theory and analysis, theory of formal functions, philosophy, semiotics and methodology of harmony and aural skills at the national and international conferences. His publications include: *Music of Sergei Rachmaninoff: Seven Musical-Theoretical Etudes* (Kompozitor, 2011), “A Watershed in Analytical Tradition: Valentina Kholopova’s Theory of Musical Content”, a chapter in *L’analyse musicale aujourd’hui* (Delatour, 2014), “Line, Surface and Speed: Nomadic Aspects of Melody”, a chapter in *Sounding the Virtual: Gilles Deleuze and Philosophy and Theory of Music* (Ashgate, 2010), articles on theory of formal functions, approaches to analysis, musical semiotics, music of Sergei Rachmaninoff and Dmitri Tiomkin in *Vereinigung voor Musiektheorie, Goldbergstiftung, Acta Semiotica Fennica, Res musica, Theoreia, Film Music Journal* and *Musical Academy Quarterly*, as well as philosophical studies in *Sinij Divan* and *Logos*.

Dmitri Tymoczko

Department of Music, Princeton University, USA
dmitri@Princeton.EDU

Towards a Topology of Music

The topology of music might sound like a fever dream, a brand of music theorizing that has lost its connection to common sense or musical utility. But it represents a natural, and in some ways more practical, approach to a familiar set of musical problems. In my talk I will argue that topology, and particularly the notion of the “homotopy group”, mediates between the abstract orientation of earlier “transformational theory”, and the more concrete aims of recent voice-leading geometry. I will then show how a topological orientation allows us to devise simple two-dimensional models of a wide range of voice leading and set-class spaces, models that can be applied to any chord

in any scale. I will end by briefly outlining how these models can be used to analyze a range of music from Renaissance modality to contemporary rock.

Dmitri Tymoczko was born in 1969 in Northampton, Massachusetts. He studied music and philosophy at Harvard University, and philosophy at Oxford University. He received his PhD in music composition from the University of California, Berkeley. He is currently a Professor of Music at Princeton, where he has taught composition and theory since 2002.

His compositions are polystylistic and mercurial, drawing on genres from the Renaissance to rock. His music has been commissioned and performed by groups including the Amernet Quartet, the Atlantic Brass Quintet, the Brentano Quartet, the Corigliano Quartet, Flexible Music, Gallicantus, the Gregg Smith Singers, the Illinois Modern Ensemble, Janus Trio, the Kitchener/Waterloo symphony, Network for New Music, Newspeak, Pacifica Quartet, Synergy Vocal Ensemble, Third Coast Percussion Quartet, and Ursula Oppens. Among his awards are a Guggenheim fellowship, a Rhodes Scholarship, the Leonard Bernstein fellowship from Tanglewood, a fellowship from the Radcliffe Institute for Advanced Study, and the Block lectureship from the Society of Industrial and Applied Mathematics.

His book *A Geometry of Music* (Oxford University Press, 2011) has been described as “a tour de force” (*The Times Literary Supplement*), a “monumental achievement” (*Music Theory Online*), and, potentially, a modern analogue to Schoenberg’s *Harmonielehre* (*The Musical Times*). His first three CDs, *Beat Therapy* (“far reaching yet utterly entertaining”, *Newmusicbox*), *Crackpot Hymnal* (“ebullient ... polystylistic ... kinetic ... vividly orchestrated and vibrantly paced”, *Sequenza 21*), and *Rube Goldberg Variations* (“foot tapping”, “sassy”, the product of “an intriguing musical voice that should interest anyone in search of a new auditory experience”, *Limelight*), are available from Bridge Records. A new disc, *Fools and Angels*, has just been released.

In addition to composing concert music, Dmitri enjoys playing rock and jazz and writing words. His articles have appeared in the *American Mathematical Monthly*, the *Atlantic Monthly*, *Berfrois*, *Boston Review*, *Civilization*, *Integral*, *Journal of Music Theory*, *Lingua Franca*, *Music Analysis*, *Music Theory Online*, *Music Theory Spectrum*, *Science*, *Seed*, and *Transition*. His article “The Geometry of Musical Chords” was the first music-theory article published in the 130-year history of *Science* magazine. He has been invited to speak to audiences of musicians, philosophers, cognitive scientists, mathematicians, physicists, and the general public; articles about his work have appeared in a variety of newspapers and magazines, including *Time*, *Nature*, and *Physics Today*.

Nico Schöler

School of Music, Texas State University, San Marcos, USA
nico.schuler@txstate.edu

Orientation Processes and Perspectivism in the Spatiality of Music-Theoretical Research: Reflections on the Plurality of Modern Methods and Methodology of Music Analysis

Music theory as a discipline has become very diverse, with a rich plurality of methods of music analysis. The outcome of any research is influenced by its research method(s) and, thus, navigating the research methods becomes more and more difficult, as research

methods become more interdisciplinary and diverse. This lecture will apply Werner Stegmaier's monumental *Philosophy of Orientation* (Stegmaier, Werner, *Philosophie der Orientierung*, Berlin: de Gruyter, 2008) to processes of orientation and perspectivism in the music-theoretical research space. (Philosopher W. Stegmaier systematically and comprehensively discussed, for the first time, the conditions and structures of orientation, including scientific/research orientations.) Orientation is necessary in any new situation: to find one's way. Processes of orientation and changing perspectives in the research space is absolutely necessary, yet all too often conducted not consciously or explicit enough. In all research situations, we orient ourselves. Initial decisions of orientation, as Stegmaier points out, are often made under uncertainty and time pressure and determine subsequent decisions. That includes, of course, not only the selection and specific use of research (analytical) methods, but also the selection of music, the search and selection of prior research, the extension of prior research or the finding of niches, the formulation of research questions (goals), the processes of data collection, the selection and discussion of research (analytical) data, the generalization of research findings for broader audiences, and many more. Decisions of orientation determine our perspective, and changing the perspective – whether with our analytical focus or the analytical method(s), etc. – will result in different outcomes. To create a network of perspectives with interrelated research goals will, on the other hand, lead us to a much deeper understanding. Such deeper understanding – the wisdom – is, thus, a direct outcome of our orientation processes in our research space.

Dr. Nico Schüler is University Distinguished Professor of Music Theory and Musicology at Texas State University (USA) and the immediate past-president of the Southwest Chapter of the American Musicological Society. His main research interests are interdisciplinary aspects of 19th/20th century music, methods and methodology of music research, computer applications in music research, music theory pedagogy, and music historiography. He is the editor of the research book series *Methodology of Music Research*, the editor of the peer-reviewed journal *South Central Music Bulletin*, the author and/or editor of 21 books, and the author of more than 120 articles. Among his most recent books are *Musical Listening Habits of College Students* (2010) and *Computer-Assisted Music Analysis* (2014).

Participants

Mariam Asatryan

Dipartimento di Musicologia e Beni culturali, Cremona, Università di Pavia
Department of Musicology and Cultural Heritage, Cremona, University of Pavia, Italy
Institute of Arts of the National Academy of Sciences of the Republic of Armenia
mariam.asatryan@yahoo.it

Spatial Dimension in Giacinto Scelsi's *One-note* Style

The exploration of timbre in the twentieth century led to an epochal switch in the hierarchy of four traditionally considered parameters of sound (pitch, duration, loudness and timbre). The composers began to write music where the development was based mainly on timbral changes, thus rethinking this category as an independent one.

In music, the exploration of the timbre was followed by an interest in the spatial localization of the sound and its subsequent allocation into a separate artistic category. Meanwhile, in the exact sciences, equally interesting investigations in the study of aural sound perception of the spatial localization of the sound were conducted by physicists, engineers and acoustics.

Unlike the majority of his colleagues, in the exploration of the category of the timbre and the spatialization of the sound, Giacinto Scelsi relied exclusively on his aural perception, using only *Ondiola* synthesizer and *Revox* tape recorders as instruments. He created works where one complex sound was presented in different timbral qualities, thanks to which it acquired the qualities of spatial localization, volume and movement. He was guided by his own antithetical idea of a sound as a physical object, having an immanent kinetic capacity to express itself dynamically in a hypothetical space: to emerge from nowhere, change the volume, size and the inner content, as well as move in the space. Technically, Scelsi did it by just slightly modifying the pitch, rhythmic distribution, loudness and other parameters, in order to demonstrate how the timbral qualities of a sound were changing in our aural perception as far as the sound source was moving in the space.

The spatial characteristics of Scelsi's music are defined in this report from the point of view of the concepts of spectromorphology of Denis Smalley and from some laws of the psychoacoustics.

Mariam Asatryan graduated from the Faculty of Musicology at the Yerevan State Conservatory (Armenia). She has begun PhD studies at the Institute of Arts of the National Academy of Sciences of the Republic of Armenia and at the same time attended the Master course at the Pavia University, Department of Musicology and Cultural Heritage. Currently Asatryan

is finishing her master's degree working on the central quartets of Giacinto Scelsi and at the PhD project on the composing process of Armenian composer Avet Terteryan. She carried out roles of a journalist and editor at the *Musical Armenia* magazine and the publishing house of the Yerevan State Conservatory. The field of Asatryan's professional research includes aesthetic thoughts, compositional processes and musical styles that explore the properties of sound.

David Bard-Schwarz

College of Music, University of North Texas, Denton, USA

david.schwarz@unt.edu

Music and Spaces of Disavowal: Schoenberg's *Erwartung*

This paper addresses themes in Freudian/Lacanian Psychoanalysis, music written in the "atonal" style of Schoenberg's post-tonal and pre-serial compositions, and atonal pitch-class set theory.

I begin with Marie Pappenheim's monodrama *Erwartung* – a paratactic theater piece for a woman alone in a forest looking for her lover whom she has killed (I think); she has disavowed that knowledge and is wracked with emotional upheavals as that knowledge approaches and recedes from her consciousness without beginning, middle, or end. I apply the Lacanian concept of disavowal to this dynamic (as crucially distinct from repression; the repressed returns; the disavowed is a trauma that can never heal). I believe Schoenberg's music embodies this dynamic of the need for, and impossibility of, reaching disavowed knowledge. I will discuss Schoenberg's music approach to, dread of, and impossibility of reaching disavowed knowledge through specific configurations of trichords in the pitch-space of the work. Loose-knit textures tend to embody the woman's distance from disavowed knowledge; tight-knit textures tend to embody the woman's proximity to disavowed knowledge. In my presentation, I shall provide details!

David Bard-Schwarz has studied the violin privately (Frederick Neumann, Patricia Kopec); he has degrees in English, Comparative Literature, German, Music Theory, and Interactive Telecommunication. Bard-Schwarz has three books on music and psychoanalysis. He was brought up in an academic family in the deep south of America in the 1950s and 60s; his wife is a concert violinist from Poland – Dr. Ania Bard-Schwarz.

Gilles Baroin

Laboratoire ENAC, Ecole Nationale de l'Aviation Civile
 Laboratoire LLA-Créatis, Université de Toulouse II
 Université fédérale de Toulouse
 ENAC (National School for Civil Aviation) Toulouse
 LLA-Creatis, Literature, Languages and Art, University of Toulouse
 Federal University of Toulouse, France
 Gilles@Baroin.org

Hyperspheres and Musical Structures

This contribution deals with relationships between geometry and musical structures. It is presented as a series of computer animations, featuring theory and samples, adapted to the Music and Spatiality conference audience.

All preceding source movies and published papers are available at www.Mathemusic.net

The Planet-4D Hypersphere's family helps to unveil mathematical and especially geometrical concepts behind musical structures used in existing music. Even if composers intentionally designed their musical progressions, they may not have been aware of the underlying mathematical objects. Some mathematical concepts (Hypersphere, Quaternions, and Graphs) have been indeed discovered after the classical period, and most modern composers have no knowledge of these concepts.

After presenting Newton's chromatic circle and the Z12 form of Western music, I will show:

- Planet-4D: 12 point on the surface of a Hypersphere that can represent any class of transposable musical objects;
- Hypersphere of Chords: an equivalent of the Tonnetz projected on a 4D-Sphere, dedicated to tonal music;
- Hypersphere of AnySet, dedicated to the visualization of atonal music, which enables the display of any set of tones in hyperspace and demonstrates symmetries in a unique way;
- Hypersphere of Tonnetze, created with Louis Bigo, shows the generalized Tonnetze T1 to T6 on the surface of the 4D Hypersphere. It is dedicated to Tonnetz morphing;
- Hypersphere of Spectra, created with S. de Gérando, is an original way to display any sound according to its spectra, within a 4D environment, dedicated to spectral or micro tonal music;
- Hypersphere of Chicken / Cube Dance: including geodesics and embedding Jack Douthett and Peter Steinbach graphs; it displays specific transformations usually formalized in a 2D environment;
- Hypersphere of Temperaments: the latest 2019 model enables visualization of non-equally tempered music on a deformed Sphere (based on S^3 , but with varying radius).

Gilles Baroin started learning music with his father at school at the age of five. He has a master degree in mechanics and computer graphics and a PhD in musicology with *summa cum laude*. Specializing in geometric visualization of musical structures and processes, a designer of Planet-4D model and hyperspheres, he regularly collaborates with artists, musicians, tuners and composers to develop new models in 2D or 4D spaces. The producer of the first animated movie of an atonal piece from Webern's *Bagatelle* in 4D at IRCAM Paris, he participates regularly in mathemusic events, seminars and artistic performances, and gives talks at universities and conservatories worldwide. He is a member of the Society for Mathematic and Computation in Music and European Society for Mathematics and Arts, associated researcher in mathematics at the French National School for Civil Aviation, and in musicology at LLa-Créatis Laboratory with the federal University of Toulouse. www.MatheMusic.net

Georges Bériachvili

Conservatoire de Houilles

The Conservatory in Houilles, France

beriachvili_georges@yahoo.fr

Phenomenology of Musical Space and Theory of Musical Gesture: Conceptual Linking and Analytical Applications for the Twentieth- Century Avant-Garde Music

The theoretical frame that I propose in my contribution permits to establish a link between two fundamental concepts of music theory: that of *expressive gesture* and that of *musical space*.

In music, the expressive gesture naturally unfolds in time. However, in plastic arts, the gesture can only be represented in a “frozen” form – whether it is the gesture of a personage, of painter's brush, of color, etc. Since music has its own internal space, it is logical to assume that this space is also able to carry gestural “imprints”. To describe such manifestations of gesture, I introduce the concept of *spatial imprint of musical gesture*. This concept entails a phenomenological approach to musical space, according to which, the *phenomenon* of musical space includes all forms of quasi-spatial mental representations of music *itself*, and excludes all abstract representations of its separate elements (“space” of parameter values, etc.), as well as extra-musical space-related imagery.

We can single out five general aspects of musical space phenomenon:

1. Quasi-geometrical space: mental representation of music, based on the *analytical* spatial vision of its elements;
2. Space-as-a-matter: association of sound with substance, color, light, etc., based on the insight of *integral* qualities;
3. Energetic space: quasi-spatial representation of forces acting within musical process;
4. Synthetic large-scale temporal space;
5. Physical space.

These types of spatial representations coexist, but their balance and aesthetic role are different in different styles. In my contribution I discuss some typical examples from the twentieth-century avant-garde music. The development of art music during the past hundred years placed a priority on three components: quasi-geometrical space, space-as-a-matter, and physical space. Quoting works by Anton Webern, Karlheinz Stockhausen, Iannis Xenakis, György Ligeti and others, I show different musical situations, in which the spatial imprint of musical gesture becomes one of key elements of *aesthetic experience* of music.

Georges Bériachvili is a concert pianist and holds a PhD in musicology. He is the laureate of the Del Duca Award of the Académie des Beaux-Arts (France). Since 2004 he is a co-founder and regular participant of the yearly festival *Tbilisi. Contemporary Music Evenings*.

G. Bériachvili is Professor at the Conservatoire de Houilles (France), and Invited Professor at the Department of Music Theory of Tbilisi State Conservatoire (Georgia).

Research interests: gesture studies, theory of intonation, musical space and time, twentieth- and twenty-first-century music (theory, history, aesthetics), psychology and sociology of music.

Giovanna Carugno

Istituto Superiore di Studi Musicali “Rinaldo Franci”, Siena

“Rinaldo Franci” Conservatory of Siena, Italy

giovanna.carugno@gmail.com

Theaters, Chambers, and Churches.

Unraveling the Concept of Musical Spatiality in the Early Baroque Era

The classification of music in *ecclesiastica*, *theatralis* and *cubicularis* represents one of the key concepts for understanding the importance of musical spaces in the Baroque era.

Appearing for the first time in the works of music theorist Marco Scacchi (*Cribrum musicum ad triticum Siferticum*, 1643, and *Breve discorso sopra la musica moderna*, 1649), this tripartite distinction led to fragmentation of the unity of styles and was seen by the composers as a benchmark to direct their musical choices, in order to comply with the characteristics of a specific space. In fact, each place (church, theater, and chamber) constituted an acoustic environment, suitable for different timbres, sound textures and *ad hoc* combinations of voices and instruments.

If Scacchi and his pupil, Angelo Berardi, pointed out the connection between styles, forms and places, other theorists – such as Athanasius Kircher – listed several styles, valorizing their affective component, without making references to musical spaces. Similarly, Johann Joachim Quantz affirmed that chamber music requires more elaboration than *musica theatralis*, arousing a variety of specific affects within the listeners in the absence of scenic effects; the same can be observed for church music, which remained subservient to the liturgy and could not be enriched with the use of dramaturgical tools peculiar to the musical theatre.

Starting from these premises, the paper aims at providing a comparative analysis of the implications between spaces, social functions, musical styles and forms during the seventeenth and the beginning of the eighteenth century, taking into account the evidence contained in historical sources, with the final goal to enhance the musicological debate about Baroque musical spatiality.

Giovanna Carugno is an Italian harpsichordist and musicologist. After graduating in Piano Performance and Harpsichord Performance, she obtained a MA in Early Music and MA in Chamber Music from the Conservatory of Frosinone. She specialized in Musicology at the Pontifical Institute of Sacred Music in Rome and in Music Education at the University of Padua, obtaining also a Postgraduate Diploma in Methodology of Research in Music from the Accademia Filarmonica of Bologna. She currently serves as an Adjunct Professor of Music Theory and Rhythmic in the preparatory courses of the “Rinaldo Franci” Conservatory of Siena.

Jane Clendinning

College of Music, Florida State University, Tallahassee, USA
jclendinning@admin.fsu.edu

Physical Geography of Musical Instruments: Gesture, Embodiment, Musical Memory, and Music Theory

The process of learning to play an instrument includes repetitive practice to inculcate *body schemata* – learned physical gestures such that little or no mental effort is needed to make the movement to produce a specific sound on a specific instrument – that ideally lead to *embodied cognition* – a linkage of the (external) musical gesture that produces the sound and the (internal) musical image of the sound and of the gesture that produced it, integrating both the physical motion and the sound produced into one cognitive whole. Both body schemata and embodied cognition are specific to the *physical geography* of the musician’s chosen instrument: that is, the arrangement of pitches on the playing surface of a musical instrument and the motion across the instrument it takes to play them. When a musician skilled on one instrument first begins to play another with a very different physical geography, *cognitive dissonance* may occur, resulting in mental stress or discomfort produced by inconsistency between an established conceptual framework and the observed physical reality. Cognitive dissonance may also be created by musical terms. For instance, “step”, “skip” and “leap” are easily visualized on a piano keyboard, the “referential instrument” for teaching music theory: steps are one key to the next; skips “skip” a key, and leaps traverse several keys. What about musicians whose referential instrument is steel pan, where adjacent pitches on the instrument may be a perfect fifth, whole step, or minor third apart, depending on the type of pan? Or Andean *siku* (pan flutes), which are played in pairs, with adjacent tubes in thirds? Or guitar, where a specific pitch may be played in various locations on the fingerboard? This paper explores the physical geography of

several non-keyboard instruments, considering interactions between gesture, embodiment, musical memory, and terms and concepts of music theory.

Jane Piper Clendinning is a Professor of Music Theory at Florida State University, where she has taught since 1990. She holds her PhD in Music Theory from Yale University. Her research and teaching interests include theory and analysis of late twentieth-century, world, and popular musics, and the pedagogy of music theory. She has studied and performed with the FSU College of Music World Music Program's Sekaa Gong Hanuman Agung (Balinese gamelan), Aconcagua (Andean music), Mas-N-Steel (Caribbean Steel Band), Chinese Zheng ensemble, and African Drumming and Dance ensemble, and has studied fiddle performance in Cape Breton, Nova Scotia. She is the coauthor (with Elizabeth West Marvin) of widely-used textbooks for the music theory university undergraduate core curriculum: *The Musician's Guide to Theory and Analysis* (textbook, workbook, and anthology, W. W. Norton, 3rd edition 2016) and (with Joel Phillips and Elizabeth West Marvin) of *The Musician's Guide to Fundamentals* (W. W. Norton, 3rd edition 2018).

Denis Collins

The University of Queensland, Brisbane, Australia
denis.collins@uq.edu.au

New Tools for Old Music: Supervised Computer Learning and the Critical Editing of Early 17th-Century Roman Music Prints

At the turn of the 17th century, Rome was at the centre of many artistic and scientific developments in Europe. The music written in Rome at this time is characterised by intense cultivation of contrapuntal procedure including all manner of canonic techniques. This repertoire has attracted little scholarly attention, with a particularly notable absence of any modern critical editions based on surviving manuscripts or prints. This presentation will provide an overview of the range of canonic techniques employed by Roman composers and the cultural environments in which they worked before turning to consider how emerging technologies can be effectively harnessed in the preparation of a scholarly critical edition of selected repertoire. I report on progress made in a current project to develop a digital tool that automatically recognises specific features of musical notation in printed books from the early 17th century. I discuss how we arrived at our situation wherein we are using artificial intelligence (AI) to solve research problems, and I situate aspects of the design of our optical music recognition tool in relation to issues of spatiality more broadly. By demonstrating key features informing development of our tool, I highlight benefits in terms of efficiency for project management and breadth of opportunity for articulating new critical and analytical approaches.

Denis Collins is Associate Professor of Music at the University of Queensland in Brisbane, Australia. His research interests lie principally in the history of counterpoint and canon from the late middle ages to the time of Bach. He has been a Chief Investigator for two Discovery

Projects awarded by the Australian Research Council (ARC) that have focussed on canonic techniques from the 14th to early 17th centuries. He was also an Associate Investigator at the ARC's Centre of Excellence for the History of Emotions, 1100–1800. Together with Jason Stoessel, he has established the *Canons Database* (<https://www.canons.org.au>).

Nataša Crnjanski

Akademija umetnosti, Univerzitet u Novom Sadu
Academy of Arts, University of Novi Sad, Serbia
natasacrnjanski@live.com

Darko Tomaš

Visoka tehnička škola strukovnih studija, Univerzitet u Novom Sadu
The Higher Education Technical School of Professional Studies,
University of Novi Sad, Serbia
darko.tomash@gmail.com

Musical Perception and Visualization

The idea that musical perception is not completed in the aural domain, but that music is often transformed into something less abstract for humans, such as elements of verbal or visual domain, is nothing new. The ability to hear music in colors – colored hearing, photisma, or *audition colorée*, to use Locke's term (1689) – is an intriguing, yet quite ambiguous part of music psychology and music theory. This is why scholars have devoted serious attention to colored hearing and studied some obvious cases of synaesthesia in the works of Robert Lach, a Viennese composer and musicologist, but also in works of Olivier Messiaen and Jean Sibelius, all of whom had very refined systems according to which they heard “music” (notes or intervals) in color, that is, as strongly eidetic phenomena. We will investigate musical perception of musically educated and non-educated respondents with the aim of triggering visual experience of music. For this purpose, a questionnaire with closed question types which includes depictive words relating to shape, form, color etc. was distributed to the respondents. Results were classified and statistically analyzed, and finally transformed into visual musical form.

Cognitive linguistics has already explored cognitive metaphor and strong correlations between the spatial domain as a source domain and other domains, such as music. In addition, the investigation of musical perception, and the relation of visual and musical domains in particular will further contribute to a better understanding of musical cognition and raise some of the most intriguing questions of music theory, such as the questions of musical meaning, semantic range of music, musical interpretants, Gestalt theory in music, but also the question of how these results can be further applied in music education in general.

Nataša Crnjanski, PhD Music Theorist, Academy of Arts, Novi Sad, Serbia. During her studies, she has won a Special Award for her results from the University of Novi Sad, as well as a scholarship from the Norwegian Government. She finished her postgraduate (2008) and doctoral studies (2014) in Music Theory with Music Semiotics as her main field of research. Beside articles, which have been published in edited books and journals, she is the author of two monographs: *Muzička semiotika kroz D-S-C-H [Music Semiotics through D-S-C-H]* (Zadužbina Andrejević, 2010) and *Prokofjev i muzički gest [Prokofiev and Musical Gesture]* (Akademija umetnosti, 2014). Since 2016 she has served as Editor-in-Chief of the scientific journal *Zbornik radova Akademije umetnosti/Collection of Papers of the Academy of Arts* (<http://akademija.uns.ac.rs/zbornik-radova-akademije/>).

She works as an Assistant Professor at the Department of Composition and Theoretical Subjects at the Academy of Arts, University of Novi Sad and teaches several courses, including Music Analysis and Music Semiotics. She is a member of the International Musicological Society (IMS) and International Association for Semiotic Studies (IASS).

Darko Tomaš, holds a Bachelor of Applied Studies in Graphic Engineering and Design – Graphic design (2018) from the Higher Education Technical School of Professional Studies, Novi Sad, Serbia, currently attending Specialist studies in the field of Design (2018/19). He works as a graduate student instructor/teaching assistant in the following courses: Art History, Drawing, Digital Art, Graphic Design and Applied Arts. During his professional studies, he worked as a 2D artist for Game development studio “Brave Giant”, where he acquired advanced knowledge and skills in digital art, and worked on many projects published by GameHouse company.

He is an active member of Novi Sad Chamber Choir conducted by Božidar Crnjanski since 2016. He attended many competitions and projects such as 11. Internationaler Chorwettbewerb Miltenberg, Germany (2016), The Festival of Young Artist Bayreuth (2018) and more with that choir.

He was a participant in:

- Annual art exhibition of Higher Education Technical School of Professional Studies, The institution of the Student Cultural Centre of Novi Sad, Novi Sad, Serbia, 2018.
- Art exhibition “Lutka u fokusu”, Serbian National Theatre, Novi Sad, Serbia, 2019.

Karolina Dąbek

Wydział Twórczości, Interpretacji i Edukacji Muzycznej,
Akademia Muzyczna w Krakowie
Composition, Interpretation and Musical Education Faculty,
Academy of Music in Kraków, Poland
karodabek@interia.pl

Spatial Perception of Natural Phenomena as an Immersive Experience in Iannis Xenakis' *Terretektorh*

Iannis Xenakis is an outstanding avant-garde composer, known for incorporating some mathematical ideas into music, but also for his experiments with space as an important element of musical piece. *Terretektorh* for 88 musicians scattered among

the audience, created in the years 1965–1966, is one of the first examples of spatial music in his oeuvre, among such compositions as *Nomos Gamma* (1967–1968) or *Persephassa* (1969). In this type of spatial music, called by Anna Maria Harley as “continuous form”, ensemble dispersion, dynamic shading and temporal overlapping of sounds are involved.

Departing significantly from classical and traditional configuration of musicians and the audience, Iannis Xenakis’ piece puts the listener in an unusual and – somehow – immersive situation. The main source of inspiration for this piece were natural phenomena such as the sound of rain, the howl of the wind, the rustle of trees – which surround us during, for instance, a walking tour. Considering a problem of perception of spatial music (from a listener’s perspective), the author attempts to investigate some acoustical and cognitive aspects of the reception of *Terretektorh*. The main aim of the paper is to examine how this kind of spatial music influences the audience in both physical and psychological way, how it affects their emotions and how it can contribute to deepening their experiencing.

Karolina Dąbek, music theorist and critic, obtained her Master degree in 2018 at the Academy of Music in Kraków and began PhD studies at the same institution. She is a laureate of the Editor-in-chief of The Polish Music Publishing House Prize and Award in the category Debutant in the Polish Music Critics Competition “Kropka 2015”, granted for a review “Dźwięki oswojone”, and also a laureate of the Main Award Debutant in the Polish Music Critics Competition “Kropka 2017”, granted for a review “Trans jesieni – zmierzch awangardy”.

Agnieszka Draus

Wydział Twórczości, Interpretacji i Edukacji Muzycznej,
Akademia Muzyczna w Krakowie
Composition, Interpretation and Musical Education Faculty,
Academy of Music in Kraków, Poland
agnieszka.draus@amuz.krakow.pl

Music in the Urban Soundscape. The Case of *Campanae Cracovienses* for 25 Cracovian Church Bells by Marek Stachowski

The City is an Orchestra is the title of a chapter of a book by Ricciarda Belgiojoso (*Constructing Urban Space with Sound and Music*, Routledge, 2014). The author is an adherent of the currently popular trend of soundscape study of the surrounding environment. Apart from such phenomena as *Harbour Symphonies*, sonic (musical) cities, she points to a number of city concerts composed for church bells. She writes of these events that they “transform public places with extraordinary events addressed to the population. These are not simply musical events; they respond to a social and mediatic rationale. They set to music the places that belong to the community, they respond to strategic choices, to ideal and sometimes utopian ideas. They rethink public spaces ac-

ording to their primary condition of belonging to everyone". The *Cracovian Church Bells* symphony, the title that refers to Marek Stachowski's composition *Campanae Cracovienses* is an exceptional piece. Not only was it created in reference to the special events in the life of the city, but also one of many natural sound layers of Kraków became its sound substance. Thus it may be an interesting subject for research in the scope of man's phonic space, which currently, thanks to the "school of soundscape" of Raymond Murray Schafer, the writings of Maksymilian Kapelański and Robert Losiak from the workshop of the musical landscape at the University of Wrocław and Steven Feld's concept of acoustemology, has taken on a shape of an autonomous research discipline. The paper attempts to present the issues of the composition in the context of its function in creating the audiosphere of the royal city.

Dr hab. **Agnieszka Draus** is Assistant Professor at the Faculty of Composition, Interpretation and Musical Education of the Academy of Music in Kraków, a member of the Board of Division of Musicologists of the Polish Composers' Union as well as a nominated teacher of the general musical subjects in the Władysław Żeleński State Secondary Music School in Kraków and vice-president of *Pro Musica Bona* Foundation. In her research she has focused, on the one hand, on the issues of sacred music with particular stress on sacred musical theater especially in the works of Kraków's modern composers – Krzysztof Penderecki and Marek Stachowski, as well as German composer Karlheinz Stockhausen. On the other hand, her research focuses on the vocal and instrumental works of Polish composers: Witold Lutosławski and Paweł Mykietyń.

Laura Emmerly

Emory University, Atlanta, USA

laura.emmerly@emory.edu

Space as a Compositional Determinant in Elliott Carter's Third String Quartet

In his Third String Quartet (1971), Elliott Carter divides the ensemble into two duos, each playing its own material with a distinct character, expression and a set of movements, without exchanging any musical material for the entirety of the piece. This formal design is Carter's most radical innovation in the Third String Quartet. In his Performance Notes for the Third Quartet, Carter describes the effect he aims to achieve by dividing the ensemble into two distinct duos: "The two duos should perform as two groups as separated from each other as is conveniently possible, so that the listener can not only perceive them as two separate sound sources but also be aware of the combinations they form with each other."

This paper examines the ways in which Carter relates space to music. First, music is spatial because a certain sound quality, influenced by the size of performance space, is associated with different genres and types of instrumentation; therefore, space influences the sound ideal associated with different instruments and ensembles.

Second, the spatial separation of groups of musicians allows for clear distinctions of the layers of sound and creates conditions for their lively interactions; therefore, the location of the sound sources within the space of performers views the musicians as “objects” dispersed in space producing sounds. Lastly, the experience of participation in a musical-spatial ritual brings out the fullness of human existence in incarnate subjectivity; therefore, spatiality in music relates to the nature of performing and listening.

Building on the scholarship of Harley (1993, 1994, 1997, 1998), Trochimczyk (2001), and Bernard (1988) among others, this study is informed by the archival manuscripts housed at the Library of Congress and the Paul Sacher Stiftung.

Laura Emmery is Assistant Professor of Music Theory at Emory University. Her research focuses on the twentieth- and twenty-first-century music and post-tonal theory, with an interdisciplinary approach that draws on philosophy, literary criticism, critical theory and performance studies. Having spent over two years at the Paul Sacher Stiftung conducting a critical study of the original sources, her analysis of Elliott Carter’s music incorporates sketch study in tracking the composer’s evolution and process. Her work on Carter has been published in *The Musical Quarterly*, *Contemporary Music Review*, *Tempo*, *Twentieth-Century Music*, *Sonus*, *Mitteilungen der Paul Sacher*, among others. Her monograph, *Compositional Process in Elliott Carter’s String Quartets: A Study in Sketches*, is currently in press.

Anna Aleksandra Gluc

Akademia Muzyczna w Krakowie
Academy of Music in Kraków, Poland
annagluc6@gmail.com

Stretching out an Instrumental Space – Simon Steen-Andersen’s Piano Concerto

Simon Steen-Andersen is a Danish composer, performer and installation artist educated in Germany (Berlin, Freiburg). His works have been often labelled as “conceptual”. Apart from electronics, video and performance, he also works in the field of instrumental music. Within the last decade his works have been dealing with integrating instrumental material with multimedia.

Steen-Andersen’s Piano Concerto was written in 2014 and is scored for large orchestra, piano and sampler. As its starting point the piece takes the sound and video recording of a grand piano falling on a concrete floor from a height of eight meters. The instrumental material is extended through usage of the video of a grand piano falling, the sampled material of it, and the phantom projection of a piano player performing on the destroyed instrument. All of these create a dialogue between the real-time playing orchestra, which (due to microtonal material) should sound a little bit out of time like a “honky-tonk” band (as the composer indicates in the score), and sampled, out of pitch material.

In this work, the composer also tackles the ideological space by asking questions about the genre and aesthetics; he says: “When I compose within a classical frame I wish to show the tradition in a radically new light. By sacrificing a concert grand [piano] I thematize the beauty of the destroyed and the unpolished. I bring the listener inside the ruined instrument to experience sounds which we normally don’t come close to.”

In this paper I aim to analyze this work, by putting an emphasis on the dialogue between different media. I will consider how stretching-out an instrumental space, which is imposed by a concept of the piece, influences compositional process and musical qualities.

Anna Aleksandra Gluc is a student of the Academy of Music in Kraków, where she works under the supervision of Marcin Strzelecki. As a part of her master programme she has studied at the University of Music and Performing Arts in Graz with Christian Utz and Clemens Gadestaetter, and she has realized a part of her program at the Department of Systematic Musicology at Karl-Franzens-Universität. She has participated in various conferences in Poland (Kraków, Warsaw, Wrocław, Poznań, Gdańsk) and abroad (Thessaloniki, Belgrade).

Her bachelor degree paper in Music Theory concerned the relations between intertextuality (Genette, Hatten concepts) and grotesque (Głowiński concept) in the music of Alfred Schnittke. She has published texts in *Glissando*, *Teoria Muzyki. Studia, dokumentacje, interpretacje* and in *MEAKULTURA*.

Bree Guerra

University of Texas, Austin, USA
breeguerra@utexas.edu

The Feel of the Future: Embodying Expectation and Enacting Virtual Worlds in Musical Expression

The purpose of this paper is to suggest how, within the embodied cognition behind music’s emotional expression, the careful shaping of expectations in music can evoke an ongoing interaction with a virtual world, akin to the role of the environment for emotion in real life. I explore this premise by bringing an enactivist perspective of perception and emotion to the concepts of musical agency found in music cognition and music theory. By emphasizing the role that temporality plays in sense-making, enactivism’s dynamic and nonrepresentational view of cognition, I argue that the sense of virtual “world” enacted in musical emotional expression stems from music’s ability to engage sensitivities toward the future that are intrinsic to embodied experience.

Enactivism’s approach to perception highlights how future anticipations enact the sense of *presence* that the world holds in one’s perception. These embodied sensitivities toward the future, when imbued with affect, function equivalently to emotional appraisal, shaping the form that one’s emotions take in response to the environment. By drawing a parallel between the flow of sensory perception in the world, and the

flow of musical sound through time, I argue that embodying musical expectations via musical agency can effectively evoke a stance towards a wider, virtual musical world, and thus function in a situational manner akin to appraisal. Illustrating this idea with examples drawn from Chopin's Preludes, I show how this perspective can account for the expressive effects of musical elements like harmony and phrase form, whose emotional connotations extend beyond a simple mapping of sound to physical movement. The expression created by these syntactic elements instead emerges from the *situational* implications they project onto the music's future trajectory, allowing expressive transformations to be experienced in a continuous, dramatic manner consistent with the narrative descriptions for such moments invoked by listeners and analysts alike.

Bree Guerra is a PhD candidate in Music Theory at the University of Texas, studying with Dr. Robert Hatten. She received a Masters in piano performance from the University of Texas-Pan American, and a BA in music and BS in physics also from the University of Texas. Her current research is centered on intersections between contemporary approaches to cognitive science and musical analysis, where her dissertation centers on a reevaluation of traditional perspectives on musical expectation and musical expression through the lens of enactivism. Her other research interests include musical form and schema theory, postminimalism in film music, and the polytonal works of Frederic Rzewski, and she has presented her work at conferences at both the regional and national level.

Bert van Herck

New England Conservatory, Boston, USA

Bert.vanHerck@necmusic.edu

Music and Spatiality: *Lichtbogen* by Kaija Saariaho

Kaija Saariaho is very much aware of the musical aspects of space: the space music is created in, and the space music itself creates. In her article *Matter and Mind in Music* (2000) Saariaho explores the connection between architecture and music, and specifically talks how both aspects of space are important to her. For Saariaho, creating space with music can happen in two ways: with a pulse, or without, so that there is no sense of time. Indeed, the passing of time is a crucial aspect for Saariaho as she states: "composing is capturing time and giving it a form". During this presentation these statements will guide a detailed discussion of *Lichtbogen* (1987) for ensemble with electronics. This composition seems very adequate for this topic because of the absence of recognizable objects, so that the attention of the listener is directed to the textures and the musical spaces. In particular the form will be discussed and how the textures articulate – with or without pulsation – the musical spaces of the form.

The second aspect – the space in which the music is created – is also important to Saariaho in her compositional method. In the article she mentions being very aware of the acoustics of the hall in which her music is performed. And she wants to control the acoustics, or at least manipulate them by the use of electronics. The elec-

tronics can create a different sense of space for different sections of the piece, and can make some aspects of sound audible that otherwise would be lost. Both of these apply to *Lichtbogen* as well and will be discussed in this presentation.

Bert van Herck is full time faculty member at New England Conservatory. He holds a PhD from Harvard University where he studied with Magnus Lindberg, Julian Anderson, Chaya Czernowin, Brian Ferneyhough, and Helmut Lachenmann. With Hans Tutschku, he studied electroacoustic music. In the fall of 2006 he was an exchange scholar at Columbia University, working with Tristan Murail.

Besides his compositional activities, his interest in music theory has led to presentations at international conferences on the music by Oliver Knussen, spectral music, and the music of Magnus Lindberg. Recently he presented his work on Scriabin at EuroMAC 9 in Strasbourg, and participated in *Music, Avant-Garde, and Lettrism* in Lisbon with a paper “Sound as a Model” focusing on Murail and Lucier.

His compositions have been performed in several countries and festivals, including the Gaudeamus Week, ISCM World New Music Days in Sweden and Australia.

Hyun Höchsmann

Philosophy Department, East China Normal University,
Shanghai, China
hhochsmann@gmail.com

“Spazio Sentito” – “Spaces Heard”: From Varèse to Luigi Nono

It is the inaudible, the unheard that does not fill the space but discovers the space, uncovers the space as if we too have become part of sound and we were sounding ourselves. (Luigi Nono)

Transformation, creation, and discovery of musical space

Conceptions of musical space in Edgard Varèse and Luigi Nono have significant parallels. Exploring sound as an acoustic event in space, in *Poème électronique* Varèse created a sound and space installation to enable experiencing sound as it moves through space. Varèse described his compositions as “spatial music” and “sound objects, floating in space”.

Many islands of quiet sounds magically travelling through space –

(Claudio Abbado on *Prometeo*)

In *Prometeo*, Nono explored the idea of *spazio sentito* (space heard) and emphasising the necessity for contemporary music to “intervene in the sonic reality of our time”. Nono strove to create “mobile sound which does not fill the space, but discovers it, unveils it”. Nono conceived the sound complexes of the music and the texts to move and evolve in space in a continuum of transformation.

Poetics of musical space

These trees are magnificent, but even more magnificent is the sublime and moving space between them, as though with their growth it too increased.
(Rilke)

The poetics of space envisaged by Rainer Maria Rilke, whose poetry (*Duineser Elegien*) is incorporated in the libretto of the *Prometeo*, resonates with Varèse's and Nono's transformation, creation, and discovery of musical space. Rilke's poetic imagery of the simultaneous growth of the trees and the expansion of the space between them is consonant with Varèse's understanding of musical space as "open" without boundaries. Gaston Bachelard's insight in *The Poetics of Space* that "inhabited space transcends geometrical space" resonates with Nono's "composition of music which wants to restore infinite possibilities in listening today by use of non-geometrical space". Nono urged:

We have to study and learn about space. Music without sound-space is impossible!

Hyun Höchsmann studied philosophy, art history, and literature at Ludwig Maximilian University, the Sorbonne, and at the University of London. Her publications include, "Essence and Context – Process of Becoming and Dialectical Temporality in Adorno and Nono", "Bridging the Gulf between Nature and Freedom in Kant and Zhuangzi", "Walter Benjamin on Hölderlin's *Poetic Cosmos*", *On Philosophy in China*, and *Zhuangzi*. Her research interests include philosophy of music, Eastern philosophy, critical theory, and comparative philosophy. Höchsmann is affiliated with East China Normal University in Shanghai as a visiting professor. She has taught at the Julliard School of Music and at the American University in Cairo.

Ulf A. S. Holbrook

RITMO Senter for tværfaglig forskning på rytme, tid og bevegelse,
Universitetet i Oslo
RITMO Centre for Interdisciplinary Study on Rhythm, Time and Motion,
University of Oslo, Norway
u.a.s.holbrook@imv.uio.no

Emil Kraugerud

Institutt for musikkvitenskap, Universitetet i Oslo
Department of Musicology, University of Oslo, Norway
emil.kraugerud@imv.uio.no

Distances and Proximities in Acousmatic Spatiality

In any given listening situation space is, in some form, always present. Our understanding of this space is given by our listening position and our ability to relate sounds to our knowledge of context, representation and cause. This paper seeks to discuss the

spatiality of sounds, through our listening to the space in sound and not just to the space the sounds occupy.

In both stereo and multichannel reproduction contexts we perceive sounds as existing in space but seldom consider the spaces which are occupied *in* the sound. The proximal differences between sounds and the perceived distances in the listening perspectives, not just angular differences in panning, are important criteria for understanding the contexted spatiality a sound contains. A sound is an energy and a soundfield is a collection of energies, a release of energy changes a space or creates a new space (Lefebvre 1991).

Perception of the closeness of a sound is greatly dependent on the space contained by that sound, as it is perceived by a listener. This perception is affected by apparent width and timbre. For example, a wide sound may be perceived as being close, and through particular techniques applied in music production, the distance relations between sounds can be manipulated beyond what would be possible in direct interaction with sound sources. In musical contexts, this can in turn affect the ways in which the music is interpreted.

Rather than just seeing a microphone as a static point which samples a signal at specific intervals, the microphone, like the speaker, is a window into space which gives us access to the spaces in the sounds. A hard left/right pan in a stereo soundfield provides us with a clear spatial boundary in which sounds exist, but this space is extended by the spatiality of the sounds themselves.

Ulf A. S. Holbrook is a composer, sound artist and doctoral research fellow at the RITMO Centre for Interdisciplinary Study on Rhythm, Time and Motion (IMV). The focus in his research is on perceptions of sound objects in spatial audio reproduction systems.

Emil Kraugerud is a doctoral research fellow in the Department of Musicology at the University of Oslo. The focus of his research is the production and meaning of acousmatic intimacy in recorded music. Kraugerud has practical experience from working as a musician and recording engineer.

Nicholas Hunter

The University of Queensland, Brisbane, Australia
nicholas.hunter@uqconnect.edu.au

Form and Function as Virtual Measures of Musical Spatiality

Form and function are metaphorical constructs which serve a heuristic purpose in the understanding of a musical work. The aural identification of musical hierarchies is based on prior knowledge of stylistic conventions and the expectation that these conventions will be met. The morphology and structure of a musical work is perceived internally by the listener as existing in a virtual space. This is often conceived in rela-

tion to temporality, concerning the order of musical events in time and their relation to each other. Drawing from the recent work of Matthew Arndt, I view formal functions as *processes* that describe *what the content is doing*, and not merely as measures of temporality. Arndt's eight structural functions of *establishment*, *confrontation*, *connection*, *dissolution*, *delimitation*, *elaboration*, *preparation*, and *stabilisation* are broad enough to be applied to a wide-range of common-practice and post-common-practice music. They also speak to the listener's perception of the metaphorical relationships between musical elements, which together make up the structure and morphology of a musical work. This paper will demonstrate the applicability of Arndt's methodology to the music of Lili Boulanger (1893–1918) – specifically, her choral – orchestral work *Vieille prière bouddhique*. It represents part of a larger study that will analyze form, function, and content in a number of representative compositions from Boulanger's oeuvre and which aims to draw attention to a somewhat lesser-known and understudied composer.

Nicholas Hunter is a second-year PhD student at the University of Queensland under the supervision of Dr. Simon Perry and Associate Professor Denis Collins. His dissertation, "D'un Jardin Recherché – Harmonic Innovation in the Works of Lili Boulanger (1893–1918)" concerns the music of twentieth-century French composer Lili Boulanger, and specifically focuses on her compositional approach to harmony and form. Nicholas has recently presented at the New Zealand Musicological Society's Annual Conference in December 2018 and the Royal Musical Association's Manchester Conference in September 2019. Nicholas has also been involved in a number of diverse performances, singing the Bach *Mass in B Minor* in 2017 with the Brisbane Chamber Choir, and the Queensland Symphony Orchestra, conducted by Stephen Layton; and playing piano in 2019 with Mayito Rivera, lead-singer of the Afro-Cuban band Los Van Van.

Ivana Ilić

Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu
Faculty of Music, University of Arts in Belgrade, Serbia
ivanailic@fmu.bg.ac.rs

Ubi sunt dracones? Spatial Representations of Form in Serbian Music Theory

Two-dimensional formal diagrams, relating either to formal types in general or to unique formal "solutions" of individual pieces in particular, can be viewed as specific maps not only of certain musico-formal features they aim to represent in a simplified, synoptic manner, but also of a whole set of discursive conditions which enable certain ways of hearing, reading, analyzing, interpreting and abstracting musical form. As such, these diagrams also reflect and constitute specific maps of a field of knowledge about and in musical form, leaving its dragons "lurking".

In Serbian music theory, in sources dealing entirely or predominantly with the questions of musical form, these diagrams have a somewhat ambivalent history. On the one hand, although the first quite rudimentary formal schemes date back to 1913, they were considerably rarely and selectively used in books, textbooks and scientific articles at least until the late 1990s/early 2000s. On the other hand, in sources which emerged from the pedagogical practice (graduate and postgraduate theses and seminar papers) formal diagrams have been continually present since the first available sources from 1965, albeit in rather different degrees and in different ways. In this paper I aim to examine this not so long, but nevertheless complex history.

Ivana Ilić is Assistant Professor at the Department of Music Theory. She graduated, received her MPhil and PhD (*Epistemologija savremene muzičke analize [Epistemology of Contemporary Music Analysis]*, 2016) in musicology at the Faculty of Music in Belgrade. She is the author of *Fatalna žena. Reprzentacije roda na operskoj sceni [Femme Fatale. Representations of Gender on the Opera Stage]* (Fakultet muzičke umetnosti, 2007), co-editor of several publications and author of more than 25 articles published in national and international periodicals, thematic collections and proceedings. Her research fields include history and epistemology of music theory and analysis, aspects of musical form, and music institutions and cultural politics in Serbia. She has also written on music and gender and Serbian contemporary music. As a pianist and the author of program notes she performed on dozens of concerts of Professor Milanka Mišević's Workshop for Piano Music and participated in the recording of a CD *Josip Slavenski's Piano Music*.

Tijana Ilišević

Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu
Faculty of Music, University of Arts in Belgrade, Serbia
tijana.ilisevic@gmail.com

It Is, Actually, Crystal Clear!

Considering “the liberation” of sound to be his primary task, Edgard Varèse introduces several key innovative concepts when approaching the sound and questions of sonority in general. The necessity of being within “the material” and “the acoustic vibration”, to cite his words, is reflected in his perception of sounds as the matter which moves constantly as a part of the self-liberating process and the space takeover. The metaphorical description of the composing process as “the process of crystallization” is in accordance with one of his key concepts that reflects the importance of space in Varèse's compositional thought, which is the idea of “projection” in music. By personifying his own music as “intelligent” sounds moving freely throughout available dimensions of space and building the total form of the composition, he draws a parallel with the unit of a crystal, as the smallest grouping of the atoms, whose spatial extension allows the formation of the crystal as a whole.

The title *Hyperprism* reveals a scientific approach to the sound while simultaneously opening the possibility of having simultaneous, different (and complementary) interpretations of the work. Therefore, this paper will approach the analysis in three different ways. First, Varèse's work will be interpreted in accordance with his implications related to the process of crystallization. According to the second approach, linked with the first one, the work will be interpreted as a geometric prism. In conclusion, with the third approach, it will be possible to interpret the work as an optical prism; moreover, it will encompass the issues of orchestration and the work with sound masses. The analytical procedure should thus be rounded up and it should enable the comprehension of the "hyper" status of Varèse's open musical space.

Tijana Ilišević (1988, Belgrade) is a PhD student at the Faculty of Music of the University of Arts in Belgrade. She obtained her BA degree (2012) at the Department of Music Theory (majoring in Harmony with Harmonic Analysis in the class of Prof. Jelena Mihajlović-Marković) and MA degree (2014) at the Department of Music Theory (majoring in Analysis of Atonal Music in the class of Prof. Miloš Zatkalik).

Between 2006 and 2016 she was a member and a soloist of the academic choir Collegium Musicum with whom she performed on prestigious stages (*Mozarteum* in Salzburg, *Carnegie Hall* in New York etc.). Between 2010 and 2016 she worked as a teacher at the music school Mokranjac in Belgrade. She has worked as the Teaching Assistant of Music Theory at the Faculty of Music since 2017.

Jelena Janković-Beguš

Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu
Faculty of Music, University of Arts in Belgrade, Serbia
jelenaforfree@gmail.com

Sonorous Architectures of Iannis Xenakis

The title of this article, paraphrased from an eulogy written by Alessandra Capanna following Iannis Xenakis' death (Capanna 2001: 21), suggests the idea that the composer was preoccupied with the spatial qualities of sound structures – their shapes, volumes, movements, as well as the creation of "sound ambiances". All these features have been widely discussed notably in relation to Xenakis's *Polytopes*, the works which combine his experiences as an architect and a composer, but they can also be observed in many of his other works of "pure music" – according to Maria Anna Harley (1994: 281), even in such early pieces as *Pithoprakta* (1955–56).

My approach to Xenakis as an "architect of sound" will focus on the discussion of certain opposite concepts which can be extrapolated from various methods of spatialisation of sound used in his works. Most importantly, the dichotomy of *open music space vs. closed music space* will be discussed, followed by *symmetry vs. anti-symmetry*, *physical vs. apparent movement of sound source(s)*, etc.

Jelena Janković-Beguš is enrolled in the Doctoral Studies of Musicology at the Faculty of Music in Belgrade. She completed her undergraduate studies at the same Faculty, Department of Musicology, and she obtained her MPhil degree from the University of Arts in Belgrade, Department of Interdisciplinary Studies (Cultural Policy and Management). She also obtained MA2 degree from the Université Paris-Dauphine (Paris IX).

She has published over 30 papers (original studies, reviews) in magazines such as *New Sound*, *Muzikologija/Musicology*, *Zbornik Matice srpske za scenske umetnosti i muziku*, *Mokranjac*, *Koraci*, *Zbornik FDU*, and in collections of writings. She co-edited (with Sonja Marinković) the collective monography *O ukusima se raspravlja. Pavle Stefanović (1901–1985)* [*De gustibus disputandum est. Pavle Stefanović (1901–1985)*]. She presented her research in conferences and symposia in Serbia, Bulgaria, Greece, Spain, Slovenia, and Belgium.

Her primary fields of research are Serbian and European contemporary music (post-WWII) and cultural policies in Europe.

Jelena Jelenković

Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu
Faculty of Music, University of Arts in Belgrade, Serbia
jekajelenkovic@gmail.com

Aspects of Reconfiguration of Pastoral Topic in the Instrumental Works by Serbian Female Composers

In this paper I focus on the problem of semantic reconfiguration of pastoral meanings in instrumental works by Serbian female composers: Ljubica Marić (*Arhaja*), Milana Stojadinović-Milić (*Eol*, *Dream*) and Isidora Žebeljan (*Selište*).

Although the pastoral, in general, is related to the mimesis of idyllic ambience, the semantic field of pastoral *topos* may be significantly complicated at the specific moment of personal and socio-cultural circumstances. Frank Kermode asserts that longing for the ideal, often encouraged by the reaction against civilization flows, is in the heart of pastoral poetry (Kermode 1952). Paul Alpers classifies pastoral as a specific mode of literature, as opposed to a genre, and defines pastoral as a means of allegory: left to pure representation of an idyll, the pastoral sensibility will either turn to criticism of the present or it will look back with nostalgia to the simplicity of the past disappeared (Alpers 1982).

With the idea that symbolism of Time and Space in music may be read in a sort of linguistic-stylistic variation (imitation and transformation) of pastoral topic reference set as *archetext* (Genette 1979; 1982), the interpretation of meanings is based on activation of the concept of *musical topos* – a complex symbolic configuration where the universality of *musical topics* is “opened” towards the style and context.

Special attention will be given to the analysis of *modalizations of inner musical space* (Tarasti 1994) in selected instrumental works. Music’s spatial qualities transcend specific styles and specific semantic potential. The objective of the analysis is to point

out how specific spatial processes in heterogeneous post-tonal context in a relationship with certain hypertextual circumstances (classification according to Genette 1982) influence the process of reconfiguration of the basic pastoral meaning and to show how pastoral sensibility has been left to distinctive representations of *idyll*, as well as *elegy*, *lament* and *satire* in the aforementioned works.

Jelena Jelenković (1985, Belgrade) graduated from the Faculty of Music in Belgrade, Department of Music Pedagogy (majoring in harmony with harmonic analysis). She is currently a PhD student at the Faculty of Music in Belgrade at the Department of Music Theory. She has participated in several international conferences: *Music Theory and Analysis* (Belgrade), *Vlado S. Milošević: Ethnomusicologist, Composer and Pedagogue* (Banja Luka), *Language-Literature-Art* (Kragujevac), *MUSICULT'14 – On Local vs. Universal* (Istanbul) with her papers published. She gave a lecture “Crnjanski – *la musica del dolore*” at the National Library of the Republic of Serbia. She wrote for *Povelja* (Journal of Literature, Art and Culture, Kraljevo), and *Zlatna knjiga* – special edition of the Library of Matica Srpska (Novi Sad, 2018). She works as an associate lecturer of theoretical subjects at the Department of Music Theory at the Faculty of Music in Belgrade.

Monika Karwaszewska

Wydział Dyrygentury Chóralnej, Muzyki Kościelnej, Edukacji Artystycznej, Rytmiki i Jazzu,
Akademia Muzyczna im. Stanisława Moniuszki, Gdańsk
Faculty of Choral Conducting, Church Music, Arts Education, Eurhythmics and Jazz,
The Stanislaw Moniuszko Academy of Music in Gdansk, Poland
mon-kar@wp.pl

Piotr Rojek

Wydział Instrumentalny, Akademia Muzyczna im. Karola Lipińskiego we Wrocławiu
Instrumental Faculty, The Karol Lipinski Academy of Music in Wrocław, Poland
piotr.rojek@amuz.wroc.pl

The Intermedial Space in *The Heart Piece – Double Opera* by Krzysztof Knittel and John King

The 1999 chamber opera *The Heart Piece – Double Opera* is the result of creative work of two composers (Krzysztof Knittel from Poland and John King from the US) with the libretto based on the play *Herzstück* by Heiner Müller. The “semantic” opera is a hybrid of music idioms of various epochs, styles, music genres, techniques and media, which create an operatic form *par excellence*, with the classic arias and recitatives. The expressive singing of the soloist has been combined with a variety of modern effects: electro-acoustic ones, loud shouting, text recitation or trivial music (jazz, country or blues). The fusion of these various means of expression creates an intermedial discourse, a complementary whole and the final artistic result – *new syncretic medium*. The form of the opera resembles theme with variations, where the theme is the text of the play and parts

of the opera are variations based on the text. Both music and text became the basis for creating the space of active scenery which is formed during the live performance.

The aim of the paper is a multi-aspect analysis and interpretation of the score and of the opera recording, as well as analysis of the media used for building the intermedial artefact. The relations between the score form and the semantics of the text, including the optophonetic text effects in *Double Opera*, where music can be both “seen” and heard, will constitute another aspect of our analysis.

Monika Karwaszewska, PhD hab., music theoretician. She is a graduate of The Stanislaw Moniuszko Academy of Music in Gdansk with a degree in Music Theory. Since 2006 she has been working at her alma mater in the position of a lecturer (assistant professor). In 2013 she was granted the doctoral degree in musical arts for her thesis *Andrzej Dobrowolski's Compositional Idiom in the Context of Stylistic Changes in Polish Music of the 2nd Half of the 20th Century* (a supervised research project of the Ministry of Science and Higher Education funded by the National Research Centre) at the Academy of Music in Kraków. She is a member (candidate) of the Musicologists' Section of the Polish Composers Association and the author of the monograph *Andrzej Dobrowolski. The Music of Pure Form*. Her scientific interest focuses on the theory of music of the twentieth and twenty-first centuries, accounting for intermedial and intertextual methodologies.

Piotr Rojek graduated from The Karol Lipinski Academy of Music in Wrocław at the Department of Instrumental, organ class: Andrzej Chorościński, and the Department of Composition, Conducting, Music Theory and Music Therapy, studying composition with Zygmunt Herembszta and Krystian Kielb. He held a series of master classes – interpretative and improvisational, led by such outstanding personalities from the world of organ music. P. Rojek works as a lecturer (associate professor) at his alma mater, where he directs the Cathedral Organ, Harpsichord and Early Music and Dean Instrumental Faculty. He has performed in most European countries. He also conducts master classes in the country and abroad. He has recorded a dozen discs. Piotr Rojek is a scholar of the Ministry of Culture and the Arts, *Internationale Altenberger Orgelakademie* in Germany and winner of competitions for organists and composers.

Koichi Kato

Independent researcher
kato_piano@yahoo.co.jp

In Search of Schubertian Cyclicity in Sonata Form

Despite a significant development of studies on Franz Schubert's instrumental works in the recent scholarship, the subject of Schubert's multi-movement cyclic compositions remains uncultivated. This is largely because his handling of a large-scale instrumental work has been undermined by the historical reception that persistently degraded Schubert's reputation into that of a song composer, who was overshadowed by a sustainable impact from the Beethoven legacy. Indeed, the way Schubert treats an instrumental work is different from the classical masters owing to the crucial aspect of lyricism and

memory (Mak 2006; Taylor 2011, 2014) and is more aligned to how Schubert wrote songs and song cycles. Theodor W. Adorno (1928) viewed the Schubertian structure in *Impromptus* and Sonata as “circular wondering”, as opposed to the forward-motion of teleological linearity: Adorno’s wording thus evokes the underlying conflictual notion of “cycle” versus “linear”. Schubert’s cyclicity can be found in, for example, *Winterreise* and the *Impromptus*, as is demonstrated by Susan Youens’ analysis of a “journey” motive – a principal kernel to link the songs – which is transposed to the D. 899/i, and its reminiscence permeates the set. Similarly, the Sonata D. 960 can also be viewed as a multi-movement cycle through an identification of Schubert’s “fingerprint” (Wollenberg 2011, 2016), some elements of which can be found in his early and late songs, with these recurrences linking the movements. In this paper I will investigate an idea of sonata as a product of an intersection of song cycle developed in the early nineteenth century as distinct from the classical sonata. Furthermore, the concept underlying here might refer to the twin notions of what James Hepokoski identified in a sonata form as a “rotational form”, complimented with a “teleological genesis”. This paper examines Schubert’s Sonata D. 960 as a multi-movement cycle (with a reference to D. 899) by tracing his fingerprint style and exploring Schubertian cyclicity.

Koichi Kato obtained the postgraduate degree from Royal Holloway, University of London, UK, where he wrote a thesis under the supervision of Prof. Jim Samson. He is currently an active independent scholar, presenting conference papers at domestic and international venues. Recent participations include the RMA Annual Conferences in 2019 (forthcoming), CityMAC Conference (SMA, UK, 2018), *Music and Musicology in the Age of Post-Truth* (UCD, Dublin, Ireland, 2018), and the Combined and National Conferences in the regions of New Zealand and Australia (2010, 2013, 2017 and 2019). His current research focuses on Schubert’s late piano music (Sonatas, *Impromptus* and *Drie Klavierstücke*) in relation to his song compositions.

Nikola Komatović

Independent researcher
nikolakom@gmail.com

Do You Recognize a Callsign? Some Ideas toward the Reconciliation of Historical Contextualization and Modern Analytical Approaches in the Perception of Octatonic Collections

From Nikolai Rimsky-Korsakov’s “admission” that he used it as one of his reference systems to Olivier Messiaen’s adaptation into his own second mode to the Taruskin/Forte debate, musical scholars seem at a loss as to what to do with the octatonic scale. While its existence as a scale in its own right has been unambiguously verified by its presence in the folk heritage of different peoples, musicologists and music theorists are far from a consensus regarding its implementation in the works of the nineteenth- and twentieth-century composers.

In his book *The Harmonic Organization of The Rite of Spring* Allen Forte applied his own set theory (previously mostly used for atonal compositions) to scale systems used by Stravinsky, offering a clear definition of the sets and subsets that involve octatonic collections. This, however, found a strong detractor in one of the finest experts on Igor Stravinsky, Richard Taruskin, whose review of Allen Forte's book underlined that Forte minimized the evolutionary value of the octatonic, while also accusing the author of a lack of contextualization. Dmitri Tymoczko replied that this scale system was overrated in Taruskin's analytical view and even misused to the detriment of other scales and more widespread systems (such as a highly chromatic tonality and the whole-tone scale). Although the positions of musicologists and theorists seem irreconcilable in many respects, some steps towards the reconciliation of the "historical" and "analytical" seem to have been taken. Thus Kofi Agawu does not reject Taruskin's contextualism, but does add that it provides little information as to if and how a certain composer uses the system.

Using different harmonic and other analytical approaches, this paper offers the concept of a minimal "pitch callsign" needed to unequivocally define a certain composition segment as octatonic, without neglecting the historical context of the system.

Nikola Komatović obtained his PhD at the University of Music and Performing Arts in Vienna supervised by Prof. Dr. Gesine Schröder and co-supervised by Prof. Dr. Annegret Huber in 2018. His thesis focused on the harmonic language of César Franck. Previously, he finished the Music Theory Bachelor (2011) and Master (2012) studies at the Faculty of Music in Belgrade. Komatović researches historical theories (historical theories of tonality and harmony in France), development of methodology in Eastern Europe (the Soviet Union and the former Yugoslavia) and China, popular music and certain aspects of modern and postmodern music (the heritage of Ancient Greek and Byzantine music). Currently, he is preparing his post-doctoral thesis about the origin and typology of the octatonic scale.

Sylwia Makomaska

Instytut Muzykologii, Uniwersytet Warszawski
Institute of Musicology, University of Warsaw, Poland
smakomaska@uw.edu.pl

Music as "a Form of Architecture". On the Concept of Musicscape

The ubiquity of music has become a distinctive feature of the contemporary media-dominated culture. One of the most intriguing examples is the presence of music in commercial spaces in which programmed music (determined as *musicscape*) functions as a modern marketing tool within the strategy of audiomarketing. In such activities music is embedded in the framework of the social communication model which assumes that the final result of the communication process is to control the recipients' responses and behavior, usually without their knowledge. This specific context puts the question of the relationship between music and spatiality in a new light.

The aim of the paper is to (re)define and characterize the architectural function of programmed music in modern commercial spaces designed in accordance with the rules of sensory and experiential marketing. Special attention will be paid to the problem outlined by Jonathan Sterne (1997), who claimed that in such environments music becomes “a form of architecture”. How and why audiomarketing service providers use properly selected music as an architectural element? Which criteria derived from musical features determine the process of acoustic mapping? What is the role of music-free zones?

These problems will be analyzed through the prism of theoretical concepts of *servicescape* design and practical implementation of audiomarketing strategy, taking into account the results of empirical research based on “soundwalking” method conducted in selected retail centres in Warsaw. It is an example of an interdisciplinary approach combining musicology, broadly understood consumer research and acoustic ecology, which seems particularly important in the context of studies on the functions of music in everyday life.

This research was supported by Research Grant No. 2016/23/D/HS2/01773 from the National Science Centre (Poland).

Sylvia Makomaska is an Assistant Professor at the Institute of Musicology, University of Warsaw. She graduated in musicology and political science (journalism). In 2008 she received her PhD from the University of Warsaw for the dissertation on Absolute Pitch (supervisor: prof. Andrzej Rakowski). In 2010 she was an academic visitor at Roehampton University in London. Her scholarly interests include psychoacoustics, cognitive and social psychology of music. She has published dozens of articles on the phenomenon of Absolute Pitch and the role of music in social communication (particularly on the problem of background music). She has participated in research projects realized in cooperation with prof. Ken'ichi Miyazaki (Niigata University, Japan) and with the Department of Music Acoustics (Fryderyk Chopin University of Music, Warsaw). Since 2017 she has been involved in the research project “*Acoustic Wallpaper*” in the Public Space – from musique d'ameublement to *audiomarketing*, supported by the National Science Centre (Poland).

Gregory Marion

Department of Music, University of Saskatchewan, Saskatoon, Canada
gregory.marion@usask.ca

Spatiality in the *Adagio* of Mahler's Symphony X

The vastness of the movement alone qualifies it for contemplation along the lines of “Music and Spatiality”. More prescient, however, is the degree to which its dimensions – those parameters identified in the Call for Papers as the “horizontal, vertical, unified... [and m]usical space-time” – are in perfect balance across the entirety of the movement. In a trivial sense, consider the scope of the orchestra which approaches 100 musicians (with some 60+ strings required to compensate for the sheer number of woodwinds, brass, and percussion). In and of itself this represents a measure of the spatial. But more

critical is the contrapuntal “weave” that unfolds throughout, and the mean by which Gustav Mahler integrates solo, sectional, varied chamber, and full orchestral effects. The ever-changing terrain necessitates continual shifts in attention from region to region of Mahler’s complex palette, fortified as it is by an expansive pitch field, and an equally substantial dynamic range.

The epicenter of the movement arrives with the recapitulation’s “wall of sound”, where the effect is one of various strata projecting independent climactic gestures, the coalescence of which constitutes the sublime. And although comprising a scant 5% of the whole, this portion of the movement contains vital clues to understanding the conceptual ground that underpins the 26-minute orchestral tour de force.

Working from the climactic moment outward in both directions, this paper explores the many spatial zones established by Mahler and the ways in which these same zones are constantly in flux. The point is that no two zones are identical, resulting in curious evocations of memory, where transformation is a constant and stands as the metaphorical equivalent of taking in familiar, and yet altered landscapes. In the end, the space in which the movement exists is intricately wedded to the space it creates, and constitutes pure musical synecdoche.

Gregory Marion is Head of the Department of Music at the University of Saskatchewan (Canada). He earned a PhD in Music Theory from the University of Michigan, a MMus in Music Theory from the University of Alberta, and a BMus in Theory and Composition from the University of Western Ontario. Marion’s areas of expertise include European music of the late nineteenth and early twentieth centuries, and especially the music of Claude Debussy, with a secondary interest in the music of Franz Schubert. Of late, Marion’s research has branched out to include select compositions of Duke Ellington. He has published numerous articles, and has presented at conferences in Canada, the United States, Europe, and Australia. Prior to the University of Saskatchewan, Marion held positions at the University of Iowa, the University of Michigan, and at Penn State. He teaches theory courses ranging from pre-Baroque counterpoint through Schenkerian analysis and other approaches.

Emma-Kate Matthews

Bartlett School of Architecture, University College London, UK
Zcftfg3@ucl.ac.uk

Calibrating Spatial Typologies with Musical Ideas in Composition and Performance

This practice-based research presents a range of real and virtual scenarios in which both physical spatial characteristics, and conceptual spatial ideas are embodied in sound, with a particular focus on architecturally aware and spatially organized musical compositions. This paper acknowledges the spatially-precise performances of works by composer Henry Brant, in parallel to exploring the limitations and opportunities of ambisonic simulation technology as a tool for prediction and performance by both architects and composers, and as employed in recent spatial music projects by the author.

Constant improvements to the portability of recording and listening devices is changing the way that we understand and experience relationships between sound and space. Recorded content in music and sonic art is very often dissociated from the context of its origins, as the spaces in which content is originally captured are often anywhere except where we end up listening to it, once it has been processed into a new work and then often subjected to further spatial effects. This presents us with a spatio-temporally unpredictable uncanniness, where we can acknowledge a conceptual resonance between what we see and what we hear, but the two worlds are not readily having a causal effect on each other. Such a freedom from site-specificity is accompanied by a desire to access and replicate the acoustic character of “other” spaces. Ambisonic simulation tools are able to offer sonic insights into the way that reflected sound behaves in both built and unbuilt spaces, without the need to physically set foot in them.

As technological development is seemingly driving our listening trends away from site-specificity, this research establishes methods by which characteristics of physical and virtual space can be more precisely calibrated with musical ideas, serving to re-establish productive reciprocities between music as constructed sound and architecture as constructed space.

Emma-Kate Matthews is an architect, musician and composer. Her practice, EKM Works is a transdisciplinary, creative practice with a focus on experimentation and innovative technologies. She teaches a Masters in Architecture unit at the Bartlett School of Architecture, UCL where she is also undertaking a PhD, funded by the Arts and Humanities Research Council. Her research focusses on discovering and exploiting creative reciprocities between music; as constructed sound, and architecture; as constructed space. She is a London Symphony Orchestra Soundhub Associate and her spatial compositions have been performed at the Barbican, the Sagrada Familia and London’s Southbank Centre. Emma-Kate plays the Clarinet, Drum Kit and Electric Bass and she has previously performed at the Barbican concert hall and the Southbank Centre. Her work has been exhibited at the Royal Academy of Arts, the RIBA and has been published in peer-reviewed journals including *Architectural Design* (Wiley) and *Design Ecologies* (Intellect).

Ivana Medić

Muzikoški institut, Srpska akademija nauka i umetosti
Institute of Musicology, Serbian Academy of Sciences and Arts, Serbia
Centre for Russian Music, Goldsmiths, University of London, UK
dr.ivana.medic@gmail.com

The Expansion of Time and Space in Franz Schubert’s Sonata in A Minor D. 845

While Franz Schubert was not the first Viennese composer to greatly expand the scope of the piano sonata (with Beethoven taking pride of place), Schubert introduced many innovations into the sonata form and cycle, broadening them and stretching their

boundaries both internally and externally. In this paper I analyze Schubert's Sonata in A Minor D. 845 (Op. 42), focusing on its first movement. This ambitious work, completed in 1825, was the first of only three sonatas published during the composer's lifetime and aptly entitled *Premiere Grande Sonata*. In performance this sonata typically lasts about 40 minutes, with the first (sonata) movement and the second (theme with variations) being of almost identical length when played in prescribed tempi. In my analysis of the first movement I will focus on methods employed by Schubert for the purpose of expanding musical time and space – especially in its relatively static and pastoral development section, which is based more on the principle of variation than fragmentation, thus resulting in what Carl Dahlhaus has dubbed the lyric-epic quality in Schubert.

Ivana Medić is a Senior Research Associate at the Institute of Musicology, Serbian Academy of Sciences and Arts (SASA) and Visiting Research Fellow with the Centre for Russian Music, Goldsmiths, University of London. She is Head of the main project of the Institute of Musicology SASA *Identities of Serbian Music within Local and Global Contexts: Traditions, Changes, Challenges* and Editor-in-Chief of the international journal *Muzikologija/Musicology*. She is a convener of the BASEES Study Group for Russian and Eastern European Music (REEM) and Vice-President of Serbian Musicological Society. Ivana Medić obtained her PhD in Musicology from the University of Manchester in 2010. She has published four monographs and over 70 articles and edited or co-edited five books.

Jelena Mihajlović-Marković

Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu
Faculty of Music, University of Arts in Belgrade, Serbia
jelena.mihajlovic.markovic@gmail.com

Harmonic Systems of Prokofiev: Tonal, Modal, and Spaces In-between

An immediately recognizable feature of Sergei Prokofiev's unique music style is certainly the harmonic system – alongside its character, wit and specific tunefulness. It is well known that Prokofiev's sound spheres are reflected in specific interactions and refractions of modal and tonal systems, as well as diatonic and chromatic layers. I will point to the variety of modalities in which the sound space unfolds. Most often, it is the junction of tonal-modal elements and of chromatic and diatonic sub-systems which is accomplished in such a manner to direct the all-encompassing tone space not only to one undeniable key center, but also to a clear key mode (minor or major). However, in building-up the extension of the gravitation sphere of one common tone space, Prokofiev creates other sound designs which I defined as *inter-tonal* space (intertonicity) and *associative-polycentrism* – meaning spaces in-between two or more key centers. These modalities clearly differ from the common bi- and poly-tonal plateaus, which can also be traced in his harmonic system – but only as short excerpts and/or applied in a manner idiosyncratic for Prokofiev. Aside from these modalities, hexatonic and octatonic systems are only occasionally applied, forming contrasting fragments in the tonal surrounding. All of the mentioned harmonic systems will be shown on selected examples from his piano sonatas.

In relation to spatiality, the other focus of my talk is the duration of the aforementioned various tonal multi-layer systems seen from the viewpoint of the time-space projection. On the one hand, *spaces in-between* tonalities are mostly present in developmental sections, but can vary in length; on the other hand, there are such sections in which *one* tonal center is preserved – sometimes shaded with major/minor variants – capturing an exceptionally long space.

Jelena Mihajlović-Marković is an Assistant Professor at the Faculty of Music in Belgrade – Department of Music Theory. She graduated from the Department of Musicology; her graduation paper was awarded the Belgrade October Prize for students. She completed her doctoral studies at The University of Arts in Belgrade and obtained a PhD with the thesis *Vidovi organizacije tonalnog sistema Sergeja Prokofjeva* [Modalities of Organizing the Tonal System of Sergei Prokofiev], supervised by Prof. Vesna Mikić. She teaches Harmony with Harmonic Analysis and Methodology of Teaching Theoretical Disciplines; she has supervised over fifteen graduation and master theses and one PhD thesis dealing with Harmonic Analysis.

She participated in symposiums *Music Theory and Analysis* organized by the Department of Music Theory at the Faculty of Music; her papers were published in the periodicals *Sound, New Sound, Music Theory and Analysis, Music and Society in Eastern Europe and Russia*. She co-organized the symposium *Mnogostruka umetnička delatnost Predraga Miloševića (1904–1988)* [Multifaceted Artistic Work of Predrag Milošević (1904–1988)], and co-edited the collective monograph on Milošević. Jelena Mihajlović-Marković is a member of the Composers' Association of Serbia and of the Serbian Musicological Society.

Dorian Mueller

University of Michigan, Ann Arbor, USA
mdorian@umich.edu

Exploring Musical Narrative Space in a Chopin Nocturne

Within studies of music and narrative, the concept of agency and its role in musical discourse has been theorized from various standpoints (see Guck 1998, 2006; Maus 1998; Monahan 2013; Hatten 2018). However, the spaces themselves in which agency occurs – what one may describe as “musical worlds” as rendered and *experienced* by the listener – have yet to be explicitly accounted for in as much depth. As “narrative comprehension closely correlates with an understanding of the spatial organization of the storyworld” (Alber 2016: 187), further fleshing out a concept of narrative space would provide valuable insight into ways in which we engage with music. In this paper, I explore the concept of musical narrative space, drawing parallels to how one conceptualizes fictional worlds in literature, namely via the constructs of: *spatial frame*, *setting*, *story space*, and *lived space* (Alber 2016). Focusing on two constructs in particular – *spatial frame* and *lived space* – I propose ways in which these spaces may be (re)defined in music as determined by a range of musical elements and parameters. Borrowing the notion of diegetic space adapted from literary theory by film theorists to describe the

spatio-temporal world of film, I then offer an approach to analysis, examining excerpts from Chopin's Op. 48 no. 2 Nocturne in F-sharp minor through the lens of these constructs; in particular, I utilize the construct of *spatial frames* to trace the transformative path through narrative space of the opening "sighing" gesture of the piece, while I conceptualize the Nocturne's *lived space* in terms of the latent musical worlds activated and experienced by the listener in the course of tracing this path.

Through exploring musical narrative space, I hope to open the door to new analytic perspectives that more readily attend to the experiential spaces of the listener.

Dorian Mueller is a fourth-year doctoral candidate in music theory at the University of Michigan. She holds an MA in Music Theory from Pennsylvania State University and a BA in Mathematics from Rutgers University. Dorian has presented her work at Music & the Moving Image (NYC) and at the London Film and Media Conference. Her research interests include musical narrativity, film music theory, nineteenth-century music, musical form, and musical phenomenology and aesthetics.

Dimitar Ninov

School of Music, Texas State University, San Marcos, USA
dn16@txstate.edu

Interior Cadences in the Sentence of Schoenberg

In his book *Fundamentals of Musical Composition* Arnold Schoenberg draws attention to a particular structure whose melodic-rhythmic organization sets it apart from the period. He names his discovery "sentence". While this term has been used in different European schools of thought independently of Schoenberg's ideas, the main subject of discussion here will be the sentence of Schoenberg.

One problem that strikes the mind in the description of sentence in William Caplin's *Classical Form* is the author's declaration that presentation phrases always unfold over a "tonic prolongation", and therefore all sentences lack interior cadences. Schoenberg, on his part, has not discussed explicitly the presence or absence of cadences within the sentence; it is Caplin's personal decision to engage with such an astonishing allegation whose numerous gaps are impossible to patch. The main goal of this essay is to disprove this allegation by revealing various cases of interior cadences in the sentence. Some of those will match the traditional concept of cadence, while others will even match the so-called "modern concept of cadence" which is based on an exaggerated notion of "tonic prolongation" and denies cadential features of passages involving inverted dominants and tonics. Last but not least, the implication that functional prolongation always negates cadence will be proved false through presentation of various musical excerpts whose background analysis will easily reveal the acoustic strength of the TSDT cycle.

Dr. Dimitar Ninov teaches music theory at Texas State University. He is a published composer and theorist as well as an invited lecturer at international, national, and regional music conferences. His original research spreads in the fields of tonal harmony and musical form. His music has been performed in North America, South America, Europe, and Asia. Ninov is a former Chair of the National Association of Composers, USA. He holds a DMA in composition from UT Austin and master's degrees in theory and composition from the National Academy of Music in Sofia, Bulgaria. Web: dimitarninov.com

Haruki Noda

Institut für Musikwissenschaft und Interpretationsforschung,
 Universität für Musik und darstellende Kunst Wien
 Department of Musicology and Performance Studies,
 University of Music and Performing Arts Vienna, Austria
nodaharuki@gmail.com

Rameau the “Spectralist”. Pitch Space Related Anomalies in Rameau’s Musical Works

With the exception of Thomas Christensen’s chapter “Rameau and the philosophes” (Christensen 1993), current research on Jean-Philippe Rameau seems to focus either on Rameau the composer or Rameau the theoretician/philosopher. This paper aims to counter this unfortunate dichotomy by taking both aspects of Rameau’s work into consideration. Therefore, two perspectives are to be taken account of:

1) In his late work *Démonstration du principe de l’harmonie* (Paris, 1750) Rameau gives concrete examples of how the *corps sonore*, the *proportion triple* and *quintuple*, the *genres chromatiques*, *enharmoniques* and *diatoniques* are realized in his compositions. Furthermore, Rameau demands microtonal adjustments in the pitch space, which were impossible to realize in his time (see also Holtmeier 2017; Spaltenstein 2017; Martin 2012, 2016).

2) Calling Rameau a “spectralist” might, at first glance, seem anachronistic. However, on closer examination, one can find clear connections to what the spectral composer Hugues Dufourt calls a “révolution épistémologique”, the *musique spectrale* (Dufourt 2014). Not only does Dufourt consider Rameau as a forefather of spectral music, he also specifies that the key characteristic of both spectral music and the music of the enlightenment is the amalgamation of “l’art, la science et la technologie”.

Analyzing Rameau’s musical works with contemporary sensibilities, analyzing them as if they were *musique spectrale*, opens up not only new spaces for semantic interpretations, but also allows us to reconsider what pitch space meant to Rameau and his contemporaries.

Haruki Noda studied classical guitar at Hochschule für Musik und Tanz Köln. Since 2015 he has studied composition and music theory at Universität für Musik und darstellende

Kunst Wien (MDW). Currently he is an assistant at Institut für Musikwissenschaft und Interpretationsforschung der MDW.

Eva-Maria de Oliveira Pinto

Hochschule für Musik Franz Liszt Weimar
University of Music Franz Liszt Weimar, Germany
emvas.berlin@gmail.com

**Organ Rooms. Organological, Music-Immanent,
Philosophical-Psychological and Cultural-Geographical
Aspects of the Instrument Organ and Its Spatiality**

The instrument organ and the music intended for it reflect various aspects of spatiality, namely organological, architectural, musical-structural, and also geographical, philosophical and psychological.

As an immobile instrument, the organ is like no other instrument connected to an architectural space and therefore individually manufactured for one certain room. Moreover, the organ's large spatial extension and its arrangement in smaller part-instruments ("Werke") can produce spatial effects. Even on the same key can be produced different spaces of sound (varied pitches and sound timbres) through manifold stops and registrations.

Going beyond these organological and music-immanent aspects of spatiality, the paper deals with a cultural geography of the organ, especially the question of how organ landscapes are formed. In addition, the philosophical-psychological dimension of the organ's sonic space is discussed: regardless of a religious context, the organ sound is often used to create an imaginary sacred space.

A selection of examples of instruments and of organ music will illustrate these remarks.

Dr. Eva-Maria de Oliveira Pinto is a musicologist, music educator and church musician. She was a lecturer at University Mozarteum/Salzburg, and until 2014 she was a full professor for music education at Hochschule für Musik Detmold. Since 2015 she has worked for the UNESCO-Chair on Transcultural Music Studies at the University of Music "Franz Liszt" Weimar.

The main topics of her lectures, research and publications are on nineteenth-century music, piano and organ music of the nineteenth and twentieth centuries, church music and subjects in the field of music education (especially on Transcultural Music Education). Starting in 2010 she was a co-editor of the journal *Musik und Unterricht* and since 2016 she has been a co-editor of the book series *Sounding Heritage* of the UNESCO-Chair on Transcultural Music Studies.

Predrag Repačić

Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu

Faculty of Music, University of Arts in Belgrade, Serbia

prongoo@gmail.com

On Dimensionality of Movable Counterpoint

Convertible Counterpoint in the Strict Style and Doctrine of Canon by Sergei Taneyev is a capital twentieth-century study in the field of counterpoint. Relying more or less on Taneyev's theoretical premises, in my earlier papers I pointed to the fact that the same issues could be observed from a variety of vantage points, and that the observed content could acquire additional dimensions not present in the theoretical discourse of either Taneyev or his followers (Bogatyrev, Moller). I have in mind primarily the study of changes in the structure of the polyphonic vertical, after the counterpoints have moved with respect to each other in space, time, or space-time. An analogy of a kind between moving counterpoints in a composition and the motion of matter in the physical dimensions of space and time is obvious, the more so since the contrapuntal motion is based on specific mathematical calculations. The dimensionality of movable counterpoint is most apparent in the examples of multiple movements, namely, the complex contrapuntal situations in which a movable model results in more than one consequence. It is precisely in such situations that Taneyev failed to observe the dimensionality, which led to certain shortcomings in his classification, for he does not adduce examples in which one and the same model produces consequences in several dimensions. Talking about especially complex canonic imitations in which movable counterpoints function as the executive mechanism of the entire compositional procedure, while their multidimensionality becomes inevitable and indispensable in the process of construction, the author failed to observe and point out this essential characteristic of movability. This probably prevented him from accomplishing an exhaustive classification of four-part canons into four types, rather than three that he proposed. In my own attempt to establish a theoretical framework for the composability of (canonic) imitation of movable counterpoints, I have expanded his classification, not only with theoretical explication, but also with examples from musical practice.

Predrag Repačić (1958, Slavonski Brod, Croatia). Upon his arrival in Belgrade in 1977, he first studied music privately with Andrija Galun, and then, as a scholarship student of the University of Arts, he studied, graduated and mastered composition in the class of prof. Srđan Hofman. His works include various forms and genres, both vocal and instrumental, for soloists and symphonic ensembles. His pieces have been performed at various events, concerts, and festivals in Serbia and abroad, such as a MUS, TMCY in Opatija, The International Review of Composers in Novi Sad and Belgrade, Europhonia Festival in Zagreb, Open Music Festival in Milan, East-West Festival in Argentina, etc. Repačić has won several competitions of the Composers' Association of Serbia, and he is also winner of numerous public awards for composition. As a fellow of the German Institute for Contemporary Music (IMD), in 1990 he attended the 35th international New Music Course in Darmstadt. After studying in Berlin (1993), he assumed a teaching post for Counterpoint and Analysis at the Faculty of Music.

As a theorist, he has focused on renaissance techniques of composition, especially canonic writing, movable counterpoint imitation, and work with a cantus-firmus. He has participated in numerous domestic and international conferences in music theory and analysis.

Jessica Sommer

School of Music, Ball State University, Muncie, USA
jessicaannesommer@gmail.com

Space and Time on Stage: Embodying Britten's Ghosts in *Turn of the Screw*

Acoustic music takes place both in experiential time and in physical space, and the physical manifestation of this music is accessed through performance. In thinking about accessing performance – a type of musical space – the music heard in performance encompasses heard sound, moving bodies, and the deeper meaning of the composite (Clarke 2005: 62ff). The moving body is essential when studying performance, and an important part of studying music that has, until recently (Cusick 1994; Clarke 2005; Mead 1999; Graybill 2018), been relegated to the margins of the field.

I am to take performance, specifically of opera, and analyze it symbolically by thinking about the music along with the actors' movements and facial expressions (Counsell 1996; Chandler 2017). My approach equalizes time and space and thinks about them on one continuum. Additionally, a deeper meaning, rooted in culture, narrative, and society, is also relevant, especially in opera.

The opera I will approach in this analysis is Benjamin Britten's *Turn of the Screw*. Specifically, I look at how different actors have embodied the ghosts in the opera, Peter Quint and Miss Jessel. The embodiment of ghosts is necessarily different from the embodiment of living characters, even other characters in this opera. I will briefly discuss their inception (Rupprecht 2001; Seymour 2004; Howard 1985), as their voices and music were the creation of Britten and his librettist Myfanwy Piper, not extant in the source material. I will then discuss a few scenes involving the ghosts, especially Act I scene 8 "At Night," and Act II scene 1 "Colloquy," bringing in a few different video productions (Glyndebourne 2011, Aix-en-Provence 2001). I will focus on three aspects in my analysis: music, words, and actions, along with how they interact to create meaning.

Jessica Sommer currently is Assistant Teaching Professor of Music Theory at Ball State University in Indiana, USA, as of Fall 2019. She taught during the 2018–2019 year as visiting professor of music theory at Grand Valley State University in Michigan. She completed her PhD in music theory in December 2018 at Indiana University. She has a MM in music theory from University of Cincinnati, a MM in oboe performance from Florida State University, and a BA in music from Truman State University.

Prior to GVSU, she taught for several years at the University of Cincinnati and Indiana University as a graduate student; at the latter, she was presented with the Mary Wennerstrom Associate Instructor Fellowship for excellence in the classroom.

Her dissertation, *Embodiment, Enaction, and Signification in Analyzing Opera*, uses theories of embodied cognition and enaction to look at – and listen to – operatic performances and apply that embodied attitude to analysis. Her dissertation research is the impetus for the study presented here.

Jan Philipp Sprick

Hochschule für Musik und Theater Hamburg
University of Music and Performing Arts Hamburg, Germany
jan.sprick@hfmt-hamburg.de

Roberta Vidić

Hochschule für Musik und Theater Hamburg
University of Music and Performing Arts Hamburg, Germany
roberta.vidic@hfmt-hamburg.de

(Re)compositional Strategies and Sonic Architecture in Palestrina's, Anerio's and Soriano's *Missa Papae Marcelli*

Palestrina's popular six-voice *Missa Papae Marcelli* (1567) was the point of departure for recompositions by Roman composers such as Francesco Soriano (1609) and Giovanni Francesco Anerio (1619) for eight and four voices. A comparison between the three versions of the Kyrie I reveals interesting details about the (re)compositional process. The main questions are how thematic invention, counterpoint and form work together and how a multilayered concept of harmony shapes different spatial configurations of a musical idea.

The analyses draw on four recent research areas in Renaissance studies: 1. The connection between composition and improvisation in the *strettofuga* both as phenomenon of pervasive imitation (Schubert 2012, 2014; Cumming/Schubert 2015) and in the Kyrie I of the *Missa* (Grimshaw 2012). 2. A historical (Zacconi 1622; Haar 1983) and a systematical approach (Helmholtz 1877; Kursell 2015) to “harmony” in Palestrina. 3. The techniques of polychoral scoring both in Palestrina's own polychoral rewritings (Filippi 2008) and in his use of “implicit polychorality” in the *Missa* (Della Sciucca 2009, 2012). 4. The concept of sonic architecture as the variable product of different intersections between compositional practice and architectural space. This implies considering modular composition (Schubert 2007) and sonic texture in Palestrina, either for its own (Filippi 2008, 2013) or in the sum of all factors influencing sound (*Klangraum*, Brieger 2011), together with polychoral practice in terms of a modular concept of space, architectural acoustics (Baumann 2015) and a multilayered “sound in performance” (Bryant 2018).

Overall, a deep “harmonic awareness” behind these (re)compositional strategies emerges that is often overshadowed by research on basso continuo. The paper argues for an understanding of the (re)compositional process as a generator for a variable synthesis in musical and physical terms. In this way, musical practice literally determines an expansion or reduction of music material in sound and architectural space.

Jan Philipp Sprick is Professor of Music Theory at the Hochschule für Musik und Theater Hamburg. He studied music theory, musicology, history and viola in Hamburg, Cambridge/Mass. and Berlin. He taught previously at Humboldt-University Berlin, Universität der Künste Berlin, and the Hochschule für Musik und Theater Rostock. In 2012 he was Visiting Assistant Professor at the Music Department of the University of Chicago. His main research interests are history of music theory of the nineteenth century, musical ambivalence and methodological aspects of music analysis. He served as editor of the *Zeitschrift der Gesellschaft für Musiktheorie* and lectured on a wide range of topics nationally and internationally.

Roberta Vidić is lecturer in music theory and ear training at the Hochschule für Musik und Theater Hamburg and a PhD candidate in musicology with a focus on music theory under the supervision of Prof. Dr. Jan Philipp Sprick. Her dissertation topic is *Palestrina and the Theoretical and Practical Foundation of the Scuola dei rivolti in the Early 18th Century*. Moreover, she is enrolled in a research-oriented Master of Higher Education at the Universität Hamburg. In 2017 she joined the School of Excellence of the Schola Cantorum Basiliensis to study historical pedal harps and historical improvisation. She holds degrees in music theory/composition, music theory and harp performance from Hamburg, Munich and Udine. Her research interests include the history of Italian music theory from the sixteenth to the eighteenth century, history of *Harmonielehre*, and musical form with a main focus on fantasy. She regularly participates in international conferences.

Marcin Strzelecki

Wydział Twórczości, Interpretacji i Edukacji Muzycznej,
Akademia Muzyczna w Krakowie
Composition, Interpretation and Musical Education Faculty,
Academy of Music in Kraków, Poland
marcin.strzelecki@amuz.krakow.pl

Spatial Hearing in Music, Movie, Soundtracks, Video Games and Urban Soundscapes

Human senses provide vital information about the environment. There exists, however, no specialized sense of space. All five Aristotelian senses may contribute towards the spatial perception. Hearing plays a special role here. Evolutionary speaking, its primary function is to communicate about, and with, objects around, when other senses are helpless: in darkness, from behind obstacles, from behind the head, from a distance. Moreover, the effectiveness of such perception may be of critical importance when it comes to survival. Thus, hearing is a highly accurate device of spatial contextual aware-

ness. It is also fast. Auditory information reaches amygdala and triggers emotional response way before conscious perception emerges. Auditory scene is capacious. It may represent multiple objects and processes, distributed in all dimensions.

Based on such biological mechanisms, human cultures developed advanced forms of through-sound communication, language and music, in particular. Today, the art of music is discussed much more as cultural construct than as shaped by natural constrains. However, those evolutionary adaptations are still there, affecting the way music is cognized. Since primary function of hearing is to inform about the environment, any perceived sound may carry, beside its semantic content, some knowledge about world around. From this perspective, to represent surrounding space is music's natural potential.

This potential may be more or less of composers' interest. Surprisingly significant portion of musical tradition takes explicit use of it. From antiphons and early polyphony, through the craft of counterpoint, multilayer apparatus of symphonic orchestra, to the twentieth-century musical auditory space emancipation as an element of music. Main compositional strategies fall into several categories: actual versus simulated space, dynamic or static, transparent or blurred. Recent spatial sound creation is strongly stimulated by new technologies. It is intensively developed within domains of film, video games, as well as in urban soundscapes designing.

Marcin Strzelecki is a music theorist, composer and intermedia artist. Affiliated with Kraków Academy of Music and Kraków Academy of Fine Arts, he teaches music analysis and methodology, contemporary composition techniques, computer aided composition, audioart and soundart. As a researcher, he explores natural fundamentals of human musical activity from the empirical perspective, with use of computational musicology methods including advanced information processing. He conducts research on psycho-acoustical modeling of musical perception, in particular of harmony and timbre. Recently, his efforts have focused on the question of musical stylometry. He is active within the field of music criticism, writing essays and reviews for cultural journals. He creates scored music, and also takes part in free-improvised electronic music concerts. He designs multimedia installations with the use of interactive technology.

Natalia Szwab

Wydział Twórczości, Interpretacji i Edukacji Muzycznej,
Akademia Muzyczna w Krakowie
Composition, Interpretation and Musical Education Faculty,
Academy of Music, Kraków, Poland
nataliaszwab@gmail.com

Witold Lutosławski's Idea in the Music of Paweł Szymański. The Concept of Musical Space

The idea of musical space (sound space), clearly present in postmodernist music of Paweł Szymański (b. 1954), remains perceptible in several dimensions. In the "ex-

ternal” dimension, it is connected, among other things, with polychoralism or the proposed performance practice (responsorial singing), which, as we know, affects the spatial perception of the work (*Lux aeterna* for voices and instruments, 1984; *Misere-re* for voices and instruments, 1993).

More often, however, the idea of space contained in the music itself (the “inner” dimension) comes to the fore, realised through a selection of means of compositional technique. Szymański’s impression of a diversified “space-time” is the result of the application of opposition rules, concerning almost all aspects of a musical work: the organisation of sound (vertical and horizontal systems), the flow of time (*allegro* – *adagio*), or textural solutions (homophony, polyphony, heterophony). This diversity is most often integrated with a coherent concept resulting from the composer’s sur-conventional assumptions that permeate almost all of his work (including Partita No. 3 for harpsichord and orchestra, 1986; Partita No. 4 for orchestra, 1986).

Apart from the “traditionally” existing dimensions of the work: vertical and horizontal – continuing Witold Lutosławski’s idea – Szymański proposes the third dimension: diaphoric (diagonal), which, according to Lutosławski, is “an intermediate creation between vertical and horizontal, harmony and melody, between a vertical interval and an interval in time”. This idea is realised by Szymański in *Sostenuto* for symphonic orchestra (2012). This unique composition, going beyond the hitherto dominant style, can also be seen in the “symbolic” space as a nod to Lutosławski’s music, which is in the sphere of Paweł Szymański’s greatest fascination.

Natalia Szwab is an Assistant at the Music Theory and Interpretation Department of the Academy of Music in Kraków, and a certified teacher of general music subjects at the W. Żeleński State Secondary School of Music in Kraków. For her distinguished PhD dissertation *Między tradycją a awangardą. Muzyka Pawła Szymańskiego* [*Between Tradition and Avant-Garde: Music of Paweł Szymański*] (grant of the Ministry of Science and Higher Education in the years 2009–2013) she won the Hieronim Feicht Award of the Section of Musicologists the Polish Composers’ Union (2014) and the Award of the Prime Minister (2015). The results of her research, concentrated on the topics of Polish contemporary music and the problematic of philosophy and aesthetics of the culture in the twentieth and twenty-first centuries, have been presented many times as lectures during international musicological and semiotic sessions in Poland and abroad.

Srđan Teparić

Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu

Faculty of Music, University of Arts in Belgrade, Serbia

teparic@fmu.bg.ac.rs

Spatial-Temporal Relations as Factors of Constructing the Narrative Structure of the Textual Whole on the Example of the Song *Die Darstellung Mariä im Tempel* by Paul Hindemith

The poem *Die Darstellung Mariä im Tempel* from the cycle of songs *Das Marienleben* for voice and piano by Paul Hindemith inevitably leads to an interpretation of the relationship between individual variations. Namely, they could point to the essence of the temporal and spatial categories as part of the narrative structure of the movement. Written in the form of a passacaglia, the movement unavoidably evokes the period of late Baroque, as well as time categories such as movement, continuity, evolution. On the other hand, Rainer Maria Rilke's verses have unequivocal association with space because they speak of the look of the temple that the maiden Mary visited.

The analysis will be guided by the idea of Eero Tarasti, who speaks of internal and external spatiality: the first one concerns the relationship between tonalities, the other deals with the relationship between sound registers. The primary task of analyzing spatial relationships will be to harmonize the details of music activities with temporal factors, which will allow the space for interpreting events within the narrative structure of the movement. Temporality would be related to how the kinetically oriented theme moves through the tonal registry space, and the factors that foster the link with Rilke's poetic text that describes in detail the architectonics of the temple. The analysis will deal in detail with tonal relations and the status of the theme as the main actor of the narrative structure of this movement - modalities that should point to the unity of the text, which should treat the poetic and "musical" narrative structure as an indivisible whole.

Srđan Teparić is an Assistant Professor at the Department of Music Theory at the Faculty of Music in Belgrade, where he also obtained his PhD in 2016. He teaches Directions and Methods of Music Theory and Analysis, and Analysis of Music Styles. Semantics of music, semiotics and hermeneutics are all in the focus of his scientific research. These research interests peaked in his doctoral thesis *Resemantizacija tonalnosti u prvoj polovini 20. veka (1917–1945)* [*Resemantisation of Tonality in the First Half of 20th Century (1917–1945)*] (2016). He is a member of the Composers' Association of Serbia and the Serbian Musicological Society.

Pieter C. van den Toorn

University of California, Santa Barbara, USA

cbvan@aol.com

Irregular Accents and Spaces in Stravinsky

When a motive, chord, or configuration is repeated in Stravinsky's music, its alignment relative to the meter is apt to change. Stravinsky repeats not to vary or to develop in the manner of the Classical style, but rather to displace metrically. In the opening two measures of the Pas-de-Quatre in *Agon* (1953-57), a repeated triplet figure in the flutes, trumpet, and strings *pizzicato* falls first off and then on the eighth-note beat of a 4/8 meter. Crucially, the time space between successive repeats shrinks from four to three sixteenth-note beats. The displaced repeat arrives a sixteenth-note beat "too soon", and acquires a rushed, breathless quality in the process.

Metrical displacement upsets the listener's expectations of metrical parallelism, and can cause the meter to be threatened or disrupted altogether. Meter is entrained by the listener, internalized. Displacement and the irregular spaces it creates account in large measure for the pronounced *physical* impact Stravinsky's music is likely to have on the listener.

These dynamics are felt all the more acutely when, as in the *Symphony of Psalms*, III, or the notorious eight-bar phrase at rehearsal no.13 in *The Rite of Spring*, an initial motive or accent is followed by a lengthy succession of displacements. The effect of the irregular spacing changes markedly as the meter is upended and reduced to pulsation. According to Richard Taruskin (2017), the irregular spaces depict "the randomness of nature", while, to follow David Huron (2006), they are actually "less predictable than what a random pattern" would look like. Theodor Adorno (1973) calls them "arbitrary" and "sadistic", given the difficulty they pose in assimilation. This paper will seek to uncover something of the rationale underlying metrical displacement and its irregular accents and spaces in Stravinsky's music.

Pieter C. van den Toorn is Emeritus Professor of Music at the University of California, Santa Barbara. He has also taught at the University of California, Berkeley, and Yale University. His research has focused on aesthetics, rhythm theory, and twentieth-century music, especially the music of Stravinsky.

His books include *The Music of Igor Stravinsky* (1983), *Stravinsky and "The Rite of Spring"* (1987), *Music, Politics, and the Academy* (1995), and, with John McGinness, *Stravinsky and the Russian Period* (2012). See also "The Rite of Spring Briefly Revisited" (*Music Theory Spectrum* 39, 2 /Fall, 2017/). Forthcoming for the general reader is *Simply Stravinsky*, Simply Charly Great Lives Series.

Martin Vishnick

Independent researcher, City University Alumnus
mvish@btinternet.com

Auditory and Spectral Perception

This paper will center on inherent and external listening; an explanation of the meaning behind interpreting morphologies that shape auditory perception. I will develop the notion that morphological musical thinking is a dynamic activity that involves perceiving spectral energies and configurations in space.

The thought behind advocating a paradigm shift will be discussed. This can be seen as a move away from pitch emphasis that gives equal importance to the morphology of sounds, alongside the qualities inherent in spectral and other musical factors; a re-evaluation of traditional sound-making that aims to cultivate aesthetic sensibility and create cohesion in a soundworld that is potentially open. Moreover, I will also combine with the impact of gestural activity on musical performance in terms of physical and psychological effect.

Music educators are expected to teach pupils to be creative. Therefore, an ever-developing set of tools is essential for future learning outcomes, instructions that will help students to realize their inner potential. With this in mind, a practical section will help elucidate a pedagogical approach. Especially as it is necessary to devise methodology that helps musicians to consider the holistic quality of sounds that they produce and encounter.

Martin Vishnick PhD, MSc, LLCM (TD), ALCM – guitarist, composer, teacher, and researcher. As performer concert tours have taken Martin all over the globe. Commissions include music for the theater and concert hall. Martin also teaches guitar and composition.

He holds an MSc in composition at University of Hertfordshire (1998), and a research PhD from City University (2014). Martin Vishnick is now propagating post-doctoral research, testing theories and principles expounded in his PhD Dissertation.

Aleksandra Vojčić

University of Michigan, Ann Arbor, USA
vojic@umich.edu

Time-Space in Pulse-Stream Forms

“[T]he *spatialisation* of musical time cannot be deemed a betrayal. Perhaps music presupposes a unity of time and space, an alliance. In and through rhythm.” Henri Lefebvre

Using time-space graphs, I define the time-space dimension through rhythmic processes that can take place on three levels of formal structure. Processes are seen as

closed, open, or flexible based on pre-compositional intent and the manner in which a basic (temporal) idea is seen to spawn subsequent musical material. Time-space graphs summarize the rhythmic form by summarizing temporal patterns in participating pulse streams. They are a useful tool for comparing works with similar conceptual or shared pre-compositional strategies that exhibit little or no similarity between their respective sonic environments. To illustrate, I examine the time-space dimension in two works for solo piano, *90+* by Elliott Carter and *Entrelacs* by György Ligeti, and detail how the dissolution of the closed rhythmic process that underscores both works results in expansions of the time-space dimension initially defined by two polyphonic pulse streams. Whereas Carter initiates formal delineation via tempo modulation, the form of Ligeti's etude diverges from the closed process and is interrupted by two rhapsodic sections. In addition, Ligeti remains heavily invested in the prominent shaping of the dynamic parameter and vast pitch-space that frequently exhausts the available notes on the piano. These audible textural changes frequently suggest formal delineation that is at odds with the structural markers naturally generated by the primary pulse-stream pair.

Aleksandra Vojčić (BM, MM, The Juilliard School; PhD The Graduate Center, CUNY) is Associate Professor of Music Theory at The University of Michigan where she also teaches the doctoral seminar for pianists and is on the Chamber Music Faculty. Her primary research interests are rhythm and meter, focusing on the music of the long twentieth century.

Lectures and papers have been presented and published in the UK, Lithuania, Austria, and the United States. Abroad, her work has been published by the *Lithuanian Academy of Music and Theater*, *Gesellschaft für Musiktheorie*, *Kunstuniversität Graz*, *Cambridge Scholars Publishing*, *Oxford University Press*, and *Cambridge University Press*. In the United States, her articles have appeared in *Perspectives of New Music*, *Theoria*, and *Current Musicology*.

She is currently working on a monograph titled *Rhythmic Form: Structure and Process in 20th-Century Repertoire*.

Tijana Vukosavljević

Fakultet muzičke umetnosti, Univerzitet umetnosti u Beogradu
Faculty of Music, University of Arts in Belgrade, Serbia
tijana.muz@gmail.com

Tonal Dynamics as a Manifestation of Inner Musical Space

The starting point of this paper is Eero Tarasti's thesis of musical composition as a spatial arrangement of sound material, explained in terms of outer and inner musical space. While the outer musical space, according to Tarasti, refers to a spectrum of different registers, the inner one concerns the organization of pitches or, more specifically, tonality as an organized system of tones. The way I understand that system will be explained by metaphorical cognitive models (image schemas) that were first introduced in cognitive

theory by George Lakoff and Marc Johnson and then mapped onto the music analysis by some theorists and scholars (for instance, Lawrence Zbikowski, Candace Brower, Janna Saslaw). These cognitive models – *container* (tonality, key/inside-outside), *cycle* (tension-relaxation recurring patterns), *verticality* (groundedness), *foreground-background* (melody-harmony), *center-periphery* (near-far) and *source-path-goal* – will be considered in relation to concepts of tonal and harmonic dynamics which originate from Dejan Despić's theoretical-analytical studies. Since cognitive models are more easily applicable on conventional tonality, I will focus on the analysis of Maurice Ravel's Concerto for Piano and Orchestra in G major, hoping to explain the relational dynamic network of consonant and dissonant chords, harmonic functions and key changes, according to concepts of centering, stability, balance and containment.

Tijana Vukosavljević is a PhD student of Music Theory at the Faculty of Music in Belgrade. She received her Master's degree with the thesis *Fenomen smene, povezanosti i suprotstavljanja tonalnih površina kao pokretač muzičkog toka u Četvrtoj simfoniji Gustava Malera* [*The Phenomenon of Shifts, Integrations and Contrasts in Tonal Surfaces as an Initiator of Musical Flow in Gustav Mahler's Fourth Symphony*] as well as Specialist degree with the thesis *Aktivnost tonalne dinamike u muzici Morisa Ravela* [*Activity of Tonal Dynamics in the Music of Maurice Ravel*]. She has participated in annual meetings of students of Music theory in 2017 and 2018, as well as in the 20th Pedagogical Forum of Performing Arts in Belgrade.

The University of Arts in Belgrade was founded in 1957 as an association of four art faculties: Faculty of Music, Faculty of Fine Arts, Faculty of Applied Arts and Faculty of Dramatic Arts. Today, it has 2,700 students, more than 470 teaching staff and 70 study programs in diverse arts disciplines, at undergraduate, master and doctoral levels. With the aim to be recognized as a staging ground for new ideas, the University of Arts has developed specific ways of focusing and directing arts education, unifying artistic and theoretical research and providing a platform for interdisciplinary research. Recently launched practice-based doctoral programs in arts have elevated the University of Arts in Belgrade to an outstanding higher education institution in the region.

The Faculty of Music was founded in 1937 as the Music Academy by the decree of the Ministry of Education passed on March 31, 1937. The date of commencement of work was November 21, 1937, when the opening ceremony and consecration took place. By establishing this institution, for the first time a system of musical education was completed within the national framework. In 1957, at the time of the twentieth anniversary of the existence of the high art schools, the Academy of Arts was formed. Postgraduate studies at the Music Academy were introduced in 1957. In 1973, the Academy changed its name to the Faculty of Music, at the same time as the other three art schools. Their association gained the status of an independent University of Arts in Belgrade. Since 1985, the Faculty offers the PhD degree in the fields of musicology, ethnomusicology, music theory and music pedagogy. At the Department of Composition, teaching was modernized with the opening of an electronic studio.

Study programs at the Faculty of Music have always progressed simultaneously with the developments in the field of European higher education. Since 2006, the Faculty has reorganized in accordance with the principles of the Bologna Declaration. As part of this reorganization, doctoral studies in art were introduced. The studies at the Faculty of Music are organized into thirteen departments: composition, conducting, singing, piano, string instruments, wind instruments, musicology, ethnomusicology, music pedagogy, music theory, chamber music, jazz and popular music, and the polyinstrumental department (harpsichord, harp, organ, guitar, percussion).

The activities of student ensembles – The Symphony Orchestra and the Mixed Choir, as well as a number of chamber ensembles, have a very important role in the work of the Faculty, among which the Academic Women's Choir *Collegium Musicum* (the only academic female choir in Serbia, active since 1971) and The String Chamber Orchestra, named after his founder and first conductor Dušan Skovran, are the most important. The Ensemble for New Music was founded in 1992, specializing in performing contemporary music, especially in the framework of the International Review of the Composers. In 2004, *Camerata Serbica* was founded as an orchestra with prominent soloists, professors and assistant professors of the Faculty of Music in Belgrade. There is also an activity of the Chamber Opera and the Madrigal Choir.

The Faculty of Music's engagement in the field of international projects is quite diverse. Aside from a significant number of bilateral international agreements and ongoing Erasmus partnerships, Faculty has coordinated one Tempus project (4th generation). Currently the Faculty is involved in three Erasmus+ projects and two projects of international orchestras.

University of Arts in Belgrade
Faculty of Music
Department of Music Theory

Music and Spatiality
13th Biennial International Conference on Music Theory and Analysis
Belgrade, October 4–6, 2019

Editors
Miloš Zatkalik
Jelena Mihajlović-Marković
Ivana Ilić

Copyediting and Proofreading
Ivana Medić

Publisher
Faculty of Music of the University of Arts in Belgrade
11000 Belgrade, Kralja Milana 50

For publisher
Ljiljana Nestorovska, Dean, Faculty of Music

Editor-in-Chief
Gordana Karan

Published by:
Faculty of Music, 2019

Cover design
Ivan Marković

Prepress
Ana Kontić

Press
Ton plus, Belgrade

Circulation:
150

ISBN
978-86-81340-13-4

The 13th Biennial International Conference on Music Theory and Analysis
Music and Spatiality is supported by The Ministry of Education,
Science and Technological Development of the Republic of Serbia

CIP - Каталогизација у публикацији
Народна библиотека Србије, Београд

781(048)

78:005.745(497.11)''2017''(083.97)

INTERNATIONAL Conference on Music Theory and Analysis (13 ; 2019 ; Beograd)

Music and spatiality : conference program and abstracts / The 13th Biennial International Conference on Music Theory and Analysis, Department of Music Theory, Faculty of Music Belgrade, October 4-6, 2019 ; [editors Miloš Zatkalik, Jelena Mihajlović-Marković, Ivana Ilić]. - Belgrade : Faculty of Music of the University of Arts in Belgrade, 2019 (Belgrade : Ton plus). - 67 str. ; 30 cm

Tiraž 150.

ISBN 978-86-81340-13-4

а) Међународна конференција Музичка теорија и анализа (13 ; 2019 ; Београд) -- Програми

б) Теорија музике -- Апстракти

COBISS.SR-ID 279623692