

4DSOUND: POINTS ON THE CURVE

conference and concert

2016 June 8-9

The conference and concert is a result of the collaboration of **4DSOUND** and the **Electronic Music Media Programme** of the **Liszt Ferenc Academy of Music**.

Drawn from the title of Luciano Berio's composition '*Points on the curve to find...*' (1974), we explore the evolution of music, or organised sound, as a spectrum of creative forms. Throughout musical history, beliefs and ideas about space have shaped our understanding of the nature of sound, influencing the aesthetics of music and artistic parameters for sonic expression. Within the exploration of spatial sound as a medium, 4DSOUND represents a specific point of development, offering a new spatial setup of multidirectional loudspeakers and control system allowing new ways of expression and levels of awareness.

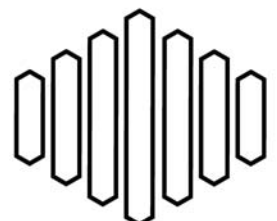
The conference **Points on the Curve: Past, Present and Future of Spatial Music** provides critical reflection and discussion on spatial sound as an emerging medium. A range of short lectures by composers, sound designers and musicologists will address key questions on the development of spatial sound as a medium: what is the lineage of the sonic exploration of space? What are the driving ideas and movements around sound and space that have shaped our present musical topography? What might spatial sound and immersive technologies open up for the future of sound exploration and new musical forms? The conference programme will culminate in a open-ended public discussion on the presented topics.

The **4DSOUND: Points on the Curve** concert presents a new generation of sonic creators that we expect will influence the musical landscape of tomorrow. Five freshly created works, developed during the recent Artist Residency programmes hosted by 4DSOUND with ZKM Karlsruhe and the Electronic Music Media Programme of the Liszt Ferenc Academy of Music, open a perspective on new musical forms and expressions using emerging spatial sound tools and technologies.

The event is co-curated by Paul Oomen (4DSOUND) and Andrea Szigetvári (LFZE-EZMM)



EZMM



SCHEDULE

Wednesday 8 June 2016

14.00 – 19.00: Conference

Academy of Music, 1061 Budapest, Liszt F. tér 8., 3rd floor Room 23

14.00-14.30 // Balázs Horváth: Historical examples of spatial music

14.30-15.00 // Laczkó Bálint: About Streams

15.00-15.30 // Szakál Farkas Soma: Space-motion as a basis for sound creation and composition regarding the piece Kinetics

15.30-16.00 // Krasz Ádám: Building sound - structures in music and sound art after the World War II

coffe break

16.30-17.00 // Alyssa Moxley: Sympathetic Resonance: reciprocity between body and space through listening

17.00-17.30 // Koenraad Ecker: Using spatialisation and distortion of scale as narrative devices in sound composition

17.30-18.00 // Paul Oomen: Altered Consciousness: from space to hyper-space

18.00-19.00 // open discussion

Thursday 9 June 2016

19.30: Concert

Spatial Sound Institute, 1223 Budapest, Nagytétényi út 48-50

Program:

Krasz Ádám: Strukturen 30'00"

- *break* -

Laczkó Bálint: Streams 20'00"

Koenraad Ecker: „...and a spark lit the blaze“ 52'10"

- *break* -

Szakál Farkas Soma: Kinetics cca. 15'00"

Alyssa Moxley: Living Memory cca. 50'00"

ABSTRACTS

Balázs Horváth

Historical examples of spatial music

Musical space has played a very important role in the music of the last decades. It became an unavoidable issue mainly in the field of electroacoustic music. Although it was used as independent parameter of music only from the 20th century, composers have written music functioning among well defined spatial circumstances since the 16th century. It is interesting to see how the “fifth musical parameter” was integrated into composition some hundred years ago and what spatial situations are still important.

Different perspectives among spatial compositions between 1594 and 2001 will be presented to prove the versatility and the compositional integrity of space-usage. These examples all fit to the three categories I created to classify the spatial compositions concerning their role in the composition. These three categories are the *auxiliary space*, *employed space* and *composed space*.

Before explaining the above mentioned categories theoretical writings will be listed that discuss the issue of musical space.

Laczkó Bálint

About Streams

One of my key concepts in my work Streams is the link between gesture and spatiality in a musical context. As a starting point of my investigation I needed somewhat of an instrument – more like a complex set of parameter controls – with which I can process and spatially distribute my chosen sounds in a given amount of audio channels (namely: 8). For this purpose I built a patch which can be controlled by my MIDI devices and the touchscreen of my phone (via OSC), thus it can translate my basic handgestures into different alterations of spectral or spatial attributes of a given sound. As I have been composing this music, more and more new features have been added to this patch as the different musical situations evolved. With the further widening of the possibilities of spatial distribution it slowly became (partly) a tool to synthesize different new sounds from the original sources without concerning spectral alteration. Of course there is a fine line considering what is spectral and what is spatial alteration, especially when someone uses artificial reverbs and frequency filters to create a virtual distance characteristics of a given soundsample. Very rapidly I became obsessed with finding newer and newer ways to distribute my sounds spatially, making composition with different sounds but similar distributional behaviour or the other way around. As I started to link several controls to one physical knob or slider (for example linking volume and circular speed, or volume and pitch, etc.), complex musical gestures were formed, in which spatial behaviour is as important musical attribute of one sound event as spectral information.

Szakál Farkas Soma

Space-motion as a basis for sound creation and composition regarding the piece Kinetics

I have imagined an approach to sound and music that is similar to how we experience the visible world. Auditorial experience can be extended with the enhanced usage of space considering sounds as objects that also appear as visual forms. New types of correlations can be made up linking sounds by giving them spatial properties and behaviour. Higher level organizations can be built up connecting and relating sounds based on their visual aspect.

My presentation is going to be focused on how I used the 4DSound system for spatialization, sound shaping, structuring, and also as a source of inspiration for designing sound. I will share my experiences I gained during the work considering spatial composition in general. An overview of my work method will be given. I will also talk about the limitations I found working with the system and the possibilities it has opened up regarding my piece.

Krasz Ádám

Building sound - structures in music and sound art after the World War II

“There is only one Art; painting and music are only different fields, part of this general Art.”
Carl Friedrich Zelter¹

As a visual artist coming from a musical background my art works always included elements from both fields. For this I always find great interest in structures, methods and themes that can be used and explored for both musical and visual art.

My discussion of the topic, structures in music and sound art, covers both physical and musical *buildings* ranging from a brief examination of Penderecki’s formal structures to an exploration of mechanical sound sources and installation art in contemporary compositions. With these examples the talk will provide a wider picture for my inspirations on the development of the piece *Strukturen* for the 4D Sound system.

After the historical summery we will move on to analyzing the score for the piece with great emphasis on its use of space both musically and visually. For this the talk will include some short examples of the sound sources and some of my older but related work.

Alyssa Moxley

Sympathetic Resonance: reciprocity between body and space through listening

Sound as a medium acts as a political, physical, and psychological signifier, which once displaced from its site of origin —whether through recording, transduction, or combination with other visual/tactile environments — becomes a more recognizably subjective experience. Displacing the sounds of an environment and calling attention to their subjective creation, through active listening, emphasizes both the acoustic and social qualities of space. This talk gives examples of how artists have created works that multiply and transmit context and specific locations, within the space of the listening body.

¹ Morton, Marsha, and Peter L. Schmunk. *The Arts Entwined: Music and Painting in the Nineteenth Century*

Koenraad Ecker

Using spatialisation and distortion of scale as narrative devices in sound composition

In this artist talk I would like to focus on an aspect of music composition that has fascinated me for many years : how to create a narrative within a piece of music while using abstract, « non-referential » sounds instead of resorting to the conventional sounds or techniques such as harmony, changes in tonality, text (sung or spoken), etc.

In my opinion it is possible to create a strong feeling of narrative, one which I like to compare to so-called « magic realism », using abstract sounds (and even sounds that are quite mundane in and of themselves) when exploiting and exaggerating the possibilities of sound-choreography, juxtaposition of non-related sounds, spatialisation and distortion of scale, perspective and distance. During the talk I will elaborate specifically what I mean by « sound-choreography » .

I feel that when we, as a listener, are confronted by a collection of minutely choreographed sounds, we instinctively create a narrative around them, for the simple reason that if these sounds move in such a peculiar fashion, there « must » be some kind of over-arching logic to why they are moving. I have been amazed, especially in the case of 4D, how even the most abstract sounds can start to « speak » as soon as they are given a place in a detailed choreography of sounds and juxtaposed in unexpected or « irrational » ways.

I will illustrate and elaborate on all of the examples stated above, while focusing on two « devices » that I find particularly effective : spatialisation and distortion of distance. I will also try to explain why I feel that these possibilities are increased massively in the 4D environment compared to a stereo or a traditional multi-channel setup.

To illustrate these thoughts I will refer to examples from other composers (notably the artists involved in the Groupe de Recherches Musicales), foley and from my own work.

Paul Oomen

Altered Consciousness: from space to hyper-space

Moving from an historic notion of space primarily determined by the relation between man and God, through the post-Newtonian world that measures the physical universe by the human scale, we arrive at a new spatial paradigm strongly informed by a century of development in quantum science and the emergence of the world wide web. Our understanding of space as a physical reality measured in distance, directionality and mass is transcending into an understanding of hyper-space: a collective spatial intelligence that is formed by the increasing interconnectedness of our conscious and unconscious responses to the environment. The quantized self forms an active particle in the emergence of space as a tangible collective consciousness.

Oomen addresses technologies such as brainwave sensors, biophysical media and haptic interfaces as new emergent tools for spatial expression with sound. He speculates on the definition of new parametric languages to describe spatial relations through sound and the way these stimulate new ways of generative spatial score-writing. The process as a whole points towards a redefinition of the roles of the composer, performer and listener, which become increasingly interdependent and transgressing.

PROGRAMME NOTES

Farkas Soma Szakál: Kinetics

cca. 15'00"

My piece is based on activity and behaviour in relationship. One can hear a set of objects acting in the space, travelling at different speeds, colliding and interfering with each other. They continuously alter the states of their own or others or they change as a collective. The piece draws a musical picture of physicality, hence the title, Kinetics.

Alyssa Moxley: Living Memory

cca. 50'00"

"Living Memory" is composed of eight sound world scenes utilizing field recordings collected over the past ten years. The piece is mixed live. The performer directs the entrance and exit of the worlds, retaining certain sound movements, and controlling the speed, direction, duration, and delays of particular sounds. Footsteps over different terrains, voices and vehicles, contract and expand into the space of the performer who carries a spatial sensor. Social situations, music, soundscapes, and abstract sounds of urban and rural environments are woven together in a work that shifts space, blending time periods and localities. Abstract sonic fragments echo through the different worlds emphasizing sound as both a spatial and emotional memory, as a medium that transmits time, place, and proprioception.

Bálint Laczkó: Streams

cca. 20'00"

My piece for the 4DSOUND system - titled: 'Streams' - is investigating the connections between instrumental musical gestures and the distribution of sounding space; it is also experimenting with the division of a large space and thus the collocation and isolation of parallel musical events. It is focused on the slow gradual transformation of sound qualities shifting from rather eventlike sounds to the more stable, pitch-centered ones.

Ádám Krasz: Strukturen

cca. 30'00"

Strukturen, a minimalist piece in every sense, builds around the relation between the sound sources and their location.

Centrally shaped both in space and time, it explores the relation between classical instruments (marimba, vibraphone and double bass) and natural sound sources (Yellowstone sound library) and searches for a way to create a bridge connecting them. For this the piece also uses installation art with natural and plastic materials.

Operating with slow movements and an open space it appears more as an ever changing installation (building itself up and down as the time passes) than a concrete piece. This sine wave like formation emphasizes the circle like connection between man and nature.

Koenraad Ecker: „...and a spark lit the blaze“

52'10"

The vocal parts in this piece were performed by Audrey Chen
Commissioned by ZKM, Karlsruhe (DE)

BIOGRAPHIES

Bálint, Laczkó

Bálint Laczkó has studied music since the age of 7 and started to study composition in 2009, as a student of Lajos Huszár. In 2015 he finished his BA studies of Composition at the Liszt Ferenc Academy of Music in Budapest as student of Gyula Fekete, then he has been continuing his MA studies in Composition as a student of László Vidovszky. He has studied electroacoustic music with Andrea Szigetvári for three years.

He had private masterclasses with Christian Wolff, Alvin Lucier, Denis Smalley, George Lewis, Louis Andriessen, Jennifer Walshe, Fabio Nieder, Richard Ayres, Alex Mincek, Rolf Riehm, Luca Francesconi, Péter Eötvös, Heinz Holliger, Yann Robin and David Lang.

His works have been played in concerts of Budapest, Krakow, Ostrava, Mürzzuschlag, Milano, Lisbon; played by groups such as Ensemble Garage, Musiciens Libres, Prague Modern, Ostravská Banda and Stadler Quartet.

He won the first prize on 38th „GENERACE” International Competition for composers in Ostrava, and third prize on the Competition for composers hosted by the Franz Liszt Music Academy in Budapest. His fixed media piece, titled „Reboot” was on the top 12 works compilation in the Sonic Research category of Sonic Arts Award 2014 (166 works were submitted in the category).



Ecker, Koenraad



Koenraad Ecker is a sound sculptor, born in Bruges, Belgium, currently based in Berlin.

His work revolves around the tactility of sound, the imaginary spaces created by music, the paradoxical qualities of silence and the narrative possibilities of editing and spatialisation.

Thus far he has released 3 recordings as a solo artist: „Ill Fares the Land” (Digitalis 2014), „Sleepwalkers in a Cold Circus” (LINE 2015) and „Notes from the Panopticon” (Ecology Tapes 2015).

Koenraad Ecker is the co-founder of two long-running duo projects : Lumisokea (releases on Opal Tapes, Eat Concrete and Alter) and Stray Dogs. He has presented his works at events such as : CTM festival (DE), MUTEK (Mexico & Montréal), Atonal (DE), Soup (Tokyo, JP), Constant Value

(Seoul, KR), Gaudeamus New Music Festival (NL), ZKM Karlsruhe (DE), Bozar Electronic Arts (BE), Rewire Festival (NL), Multiplicidade (Brazil), LEV Festival (ES) and the Göteborg Opera House (SWE).

As a composer and performer he has worked on commissions for contemporary dance for the Göteborgs Danskompani in Sweden, for Ina Christel Johannesen/Carte Blanche in Norway, for Stephan Laks at Springboard Montréal. He has collaborated extensively with Yannick Jacquet, a renowned Swiss visual artist and co-founder of the AntiVJ visual label. In february 2016 he was a resident artist at Zentrum für Kunst und Medien, Karlsruhe where he composed a piece specifically for the 4D spatial sound system.

Horváth, Balázs

Balázs HORVÁTH studied composition at the Ferenc Liszt Academy of Music, Budapest with Zoltán Jeney. He received his doctorate degree in composition at the same Academy in 2005, while teaching there as a senior lecturer. He also visited music seminars lead by Brian Ferneyhough, Michael Jarrell, Marco Stroppa, Péter Eötvös, Karlheinz Stockhausen and László Tihanyi.

Horváth's compositions won prizes at composition competitions. He received 1st Prize for *POLY* at the 'In Memoriam György Ligeti' composition competition in Berlin (2007) and 1st and 2nd prizes at different categories of the 2nd New Hungarian Music Forum, Budapest in 2011. He was awarded twice with the Benedek Istvánffy Award (2004, 2007) and also got the Ferenc Erkel Award in 2007.

Horváth's compositions are performed at international music events such as the Budapest Spring Festival, Gaudeamus Music Week (Amsterdam), ISCM World Music Days (Ljubljana, Göteborg, Zagreb, Tongyeong), Huddersfield Contemporary Music Festival, Music in Current (Tokyo), musikprotokoll (Graz), cresc. Biennale für Neue Musik (Frankfurt) etc.

As a composer he worked with reknown conductors and ensembles such as Péter Eötvös, Gregory Vajda, Pierre-André Valade, Amadinda Percussion Group, Ensemble Modern, Göteborg Symfoniker, Hungarian Radio Symphony Orchestra, Tokyo Sinfonietta, RSO Wien, Ensemble UMZE, Hong Kong New Music Ensemble.

Horváth is founder and artistic leader of THReNSeMBle that performs contemporary music. The ensemble serves the programs of the Péter Eötvös Contemporary Music Foundation for which Horváth has been a member since 2012.

Since 2014 Horváth is co-curator and founder of Átlátszó Hang New Music Festival in Budapest with Samu Gryllus.



Krasz, Ádám

Adam Krasz is a 24 year old sound and media artist from Pécs, Hungary. He finished his BA in Elcetricon Music at the University of Pécs in 2015 and currently studies Media Design MA at the Moholy-Nagy University of Arts, Budapest.

As a musician he performed at the UH Fest, Budapest, at the Aurora Club and at various clubs and exhibitions in Pécs. As a composer he had his piece performed at the competition

of composers at the Liszt Ferenc Music Academy and the Open Society Archives' music competition.

As an artist he won the 3rd Prize in the category of Installation art at the National Scientific Students' Associations Conference and participated in numerous workshops and group exhibitions, most notably in the 2015 OFF Biennale and Kunsthalle Budapest's *Pictures and Pixels*

Currently he has been taking part in the Budapest based residency program of 4DSOUND.

Moxley, Alyssa



Alyssa Moxley (www.alyssa-moxley.com) accesses narratives of identity, place, space, and embodied experience through sound. She utilizes microphone techniques, field recording, interviews, composition, digital and analog sound design, speaker placement, and sculpture to create detailed sonic interventions and environments that relate to networks of memory and knowledge distribution.

Alyssa is an avid collaborator and has created works with musicians, visual artists, filmmakers, photographers, dancers, and designers. Alyssa is currently based in Athens where she also curates for the [Kinisi Festival of Sound](#)

She studied ethnomusicology at the School of Oriental and African Studies, sound design at the London College of Communication, studio production techniques at the Banff Centre for the Arts, and completed an MFA in Studio Art in the Sound Department at the School of the Art Institute of Chicago.

Her solo and collaborative works have been heard and installed in venues and radio stations in the UK, USA, France, Canada, Ireland, Portugal, Germany, Croatia, and Greece.

Oomen, Paul

Paul Oomen is a composer and entrepreneur. Based on extensive experience from an early age in theatre as an actor and director, and as a musician skilled in percussion, piano and singing, he specialised himself initially as a composer of music for theatre and opera. Oomen holds a B/A and M/A with Honours in Music Composition from the Conservatory of Amsterdam and Universität der Künste Berlin. His work always balanced on the threshold between theatre, electronic music and technology, before he turned to work exclusively on the investigation of space, sound and perception with 4DSOUND.



Paul Oomen is Founder of 4DSOUND, and was its Creative Director from the start of the project in 2007 until 2014. He was at the heart of realizing the spatial sound performances by artists such as [Peter van Hoesen](#), [Max Cooper](#), [Biosphere](#), [Pantha du Prince](#), [Martin Stimming](#), [Murcof](#), [Senking](#), [Frank Bretschneider](#), [Robert Lippok](#), [Vladislav Delay](#), [Marco Donnarumma](#),

[Michelle Lewis-King](#), [Kazuya Nagaya](#) and [Robert Jan Liethoff](#) among many others. Oomen currently lives and works in Budapest, Hungary, where he is Head of Development at the Spatial Sound Institute.

The year 2012 saw the premiere of his 5-hour opera [Nikola](#) based on the life and work of inventor Nikola Tesla, which was the first-ever composition and live performance in 4DSOUND. In 2013, Oomen created a series of spatial re-arrangements of compositions by Tchaikovsky, Rachmaninov and Shostakovich for the [Blown Away](#) festival with the Rotterdam Philharmonic Orchestra. The aim was to create an experience that would engage listeners with the orchestra in various new ways – by extending the live experience of classical compositions with a spatial listening dimension, creating musical encounters between the orchestra and electronic musicians, and processing the sound palette of the orchestra into generative spatial sound sculptures.

In 2016 Oomen has been working on new spatial interpretations in 4DSOUND of early electronic music works by Edgar Varese and Iannis Xenakis, for premiere at [4DSOUND: Points on the Curve](#) at ZKM in Karlsruhe.

Szakál, Farkas Soma

Szakál Farkas Soma currently is a 3rd grade BA student of the Electronic Music Media Faculty at Liszt Ferenc Academy of Music Budapest. He has studied electroacoustic music with Andrea Szigetvári and Bálint Bolcsó.

As a student he has participated in the EZMM concert series. He formed an electronic duo together with *bhzsolt* that is focused on electroacoustic music live performance and improvisation. They use audio systems programmed by themselves and create and process sounds realtime. They played at MOME Zaj and NoWave festival events in Budapest.

