

institut für elektronische musik und akustik



audio mostly 2020

a conference on interaction with sound

Extended Realities concert360



streamed from IEM CUBE, Inffeldgasse 10/3, 8010 Graz, Austria

Tuesday, 2020-09-15, 20:00 h (CET): Extended Realities

Wednesday, 2020-09-16, 20:00 h (CET): concert360

<https://am20.iem.at>

<https://audiomostly.com/2020>

PROGRAM

Extended Realities (2020-09-15):

RAVE Séance

performance installation for digital and analog synthesis, lighting, laser and interactive tables (2020), performance: Marko Ciciliani

Marko Ciciliani

a letter to Humboldt (I)

for live-electronics, dance and video (2019-2020)

Alisa Kobzar

Clockwork

for rooms and live-electronics, with local and remote performer (2020)

utrumque (Gerhard Eckel / Ludvig Elblaus)

residual_risk

for 4 channels / video optional (2011/13)

Ralf Hoyer

MUSIC'S OVER

Quadraturen IIIj (2007/2012/2018) for computer-controlled piano

Peter Ablinger

concert360 (2020-09-16):

Negative Vinyl - How does the negative of an audio composition sound like?

electroacoustic audio_visual composition, 24 channel ambisonics sound, negative vinyls and turntables (2020)

Heidi Hörsturz

I Dig A Pygmy

Kurzweil K2000 sampler (1990, rev. 2000)

Paul D. Lehrman

Sound Landscape Development 3b: Talking Trees

3rd order HOA acousmatic (2020)

Natasha Barrett

FLUTR

for 24 channels (2019)

Tor Halmrast

Tom... Far... Orion... Blue...

Acousmatic, octophonic (2016-2018)

Alejandro Albornoz

Allotropy

fixed medium (2019)

Mariam Gviniashvili

Les paradoxes d'une sphère tronquée

dome 45 / HOA 7 (2016, 2019)

Jean Marc Duchenne

TEST

Fixed Media Composition (2019)

Adam Melzer

Anamorphosis

8 channel fixed media (2018)

Clemens von Reusner

Akzeleration (ZEITgezeichnet 1)

Elektroacoustic composition for 6 channels (2010/2019)

Ralf Hoyer

Σum

for fixed media playback (2020)

Alyssa Aska, Pablo Mariña, Martin Ritter

RAVE Séance

RAVE Séance is a live performance that lasts for an extended period of time and that can be joined by the audience at any point.

The project creates an audiovisual environment that fuses aspects of Rave culture and esoteric séances. By combining music that is characterized by electronic sound production and mechanical repetition, with pseudo spiritistic practices, it thematizes the coupling of scientific discovery and magic, which have existed since discoveries in the field of electricity have entered popular culture in the 19th C.

In this project I am retracing this seemingly contradictory combination of the esoteric and the technological by referring to Rave Culture – a field that also carries many ritualistic patterns not dissimilar to religious practices – in an intimate setting of a pseudo-séance. The arrangement of the room includes small interactive tables at which the audience can sit and through which they can influence the performance, as well as experience the invocation of a techno ghost.

a letter to Humboldt (I)

Alexander von Humboldt (1769-1859) is a German geographer, naturalist, explorer and the first person to describe the phenomenon and cause of human-induced climate change, in 1800 and again in 1831, based on observations generated during his travels.

How could he react on the climate changes today?

In the piece *a letter to Humboldt*, we want to direct people's attention to the beauty and – at the same time – the vulnerability of nature. The three parts of the piece are explorations of nature and climate problems nowadays.

Part 1 (presented during the concert) explores the underwater world and the problem of drying;

Part 2 is focused on the human's overuse of minerals;

Part 3 is centred around the topic of deforestation.

The dancer is consequently taking the different roles of traveller, explorer, underwater plant, crystals' cave worker, forest's conductor and the tree.

Clockwork

This is the first of three variations of the piece *Clockwork* that all premiere during the fall of 2020. This variation features two spaces, one physical and one digitally simulated, and two performers acting on those spaces, from two separate places. The physical space is the staircase in the IEM building in Graz. There, one performer, Eckel, will manipulate a mobile speaker. The simulated space is a model of the CUBE room at IEM. A remote performer in Stockholm, Elblaus, will play in that space, and the resulting sound will be heard in the staircase. All musical material in the piece is made up of acoustic feedback generated in the two spaces, shaped by the positioning of the speaker and performer in the staircase, and by gestural control of digital signal processing in the simulated CUBE.

residual_risk

The residual risk material is essentially limited to two elements: a noise drawn directly into the computer with a suitable tool as a chaotic waveform, and needle pulses of variable frequency generated by an analog synthesizer. These are reminiscent of the sound of a contamination meter. The processing was done using steep resonance filters, digital octave transposition, reversion and superimposition. If the frequencies are very close to each other, beatings and gliding changes of the overtone spectrum occur. Directional and distance impressions are created, which are only caused by the phase position of the signals. There is no additional panorama control or room simulation.

MUSIC'S OVER

in cooperation with
Winfried Ritsch: computer-controlled piano
Thomas Musil, IEM: software development
Christian Schweizer, HdK Zürich: MIDI post-editing

Negative Vinyl - How does the negative of an audio composition sound like?

The *Negative Vinyl* is not a normal record. It is the first vinyl that represents a real analog negative sound of traditional classical compositions. The records are produced by casting 2-component plastic on records of classical composers like Beethoven, Bach, Brahms, Mozart etc. The resulting imprint is physically and acoustically the negative of the original composition. Even the grooves and edges of the vinyl have taken each other's places. By doing this the principle of a photo negative was transferred into an audio composition. For this work Heidi Hörsturz used 2-component plastics and laser-technology. The grooves of the vinyl are exactly antithetical from the original records. The whole composition is inverted. Where normally the grooves were before are now the highest points of the vinyl. Therefore the needle of the turntable is constantly on search between the vinyl-grooves, combining the sound of one groove with the delayed sound of the previous one. Heidi Hörsturz presented this development among others at the MTF Music Tech Fest during the Musikmesse Frankfurt and at the Art Werk - Forum for Creative Industries in the Contemporary Art Center Winzavod in Moscow.

I Dig A Pygmy

I Dig A Pygmy was commissioned in 1990 by the University of Massachusetts Lowell to mark the 10th anniversary of the death of John Lennon. The piece consists entirely of spoken and sung materials—samples from music by Lennon and the Beatles, and words spoken by Lennon in interviews—in the tradition of Stockhausen and Berio, but with two added dimensions. Whereas musique concrète often exploited the sound of the voice for its emotional and musical content, rather than the literal meaning of the text, I wanted to make the samples I used intelligible, so they would have textual value for the audience, as well as aural. Maintaining a balance between intelligibility and sonic interest created a tension in the design of the piece I found quite challenging.

The other added dimension was that rather than compose for fixed media, I wanted to do piece that would be played live, with as much improvisation as possible, in front of an audience. In essence, I wanted to create a "hyper-instrument," made up of "fragments" of John Lennon. First I would build it, then I would learn it, and then I would perform on it.

The structure I came up with consisted of five sections, each with a different set of samples mapped across the keyboard. The sections are played in a pre-determined order, and the beginning and end of each section is fixed, so that the transitions are predictable. What happens within each section, however, is improvised, and therefore the length is flexible.

The piece was originally composed in stereo for a Roland S-770 sampler and an AKG ADR68K reverb, and in 1995 was reprogrammed for a Kurzweil K2000 sampler. The four-channel version was programmed in 2000.

Sound Landscape Development 3b: Talking Trees

The 'Sound Landscape Developments' are a series of compositional studies that reveal and enhance the features of outdoor spaces. They integrate listening, semantics and environmental interaction with new technical approaches addressing the dynamic range of sound-field spatiality. In 'Talking Trees' I searched a winter pine forest for trees that produced a creaking-squeaking sound when blown by the wind. Alongside bird calls, woodpeckers and a runner passing through the partly iced-down winter environment, the acoustics of the forest was also heard 'speaking'. Source recordings were made with two Soundfield SPS200 microphones spaced 20 meters apart: one close to the squeaky tree, one further away, in Skaugum Forest (Asker, Norway) on March 20th 2020 during the first week of the COVID-19 shutdown. Absent was the background noise from roads, trains and planes that would normally mask the details of the forest.

FLUTR

«You wave your hands like fluttering wings,...but you cannot fly!».

The piece is inspired by all aspects of fluttering: Abnormal heartbeats, The world's fluttering drive into disorder, Rapid permutations of something that that might be a melody trying to reach the sky but is trapped like a Flutter Echo between two parallel, reflecting surfaces common in many rooms. The major sound effect is the extensive use of an algorithm simulating not only the rhythmic and directional aspects of flutter echoes, but more important: the rapid, gradual change of timbre, (which in real rooms is due to diffraction and the transformation of spherical waves into plane waves), giving the mid-/high frequency "tail" typical of flutter echoes. This material is then manipulated further, with extreme settings that of course do not appear in real rooms. In order to perceive the "reflections between the "walls", the piece is a mixture of two layers: a quadrophonic layer and a more overall layer incorporating all loudspeakers. For more info: see <http://tor.halmrast.no>, including a video of a technical presentation at Computer Music Conference in New York 2019.

Tom... Far... Orion... Blue...

Like Dave Bowman, Major Tom embarks on a journey through the cosmos and at the same time by the metaphysical space to a distant Orion, leaving behind a multidimensional Blue, which, however, will accompany him forever...

This acousmatic piece was originally composed in stereophonic format between January and July and revised during November 2016 at the University of Sheffield Sound Studios.

The current octophonic version was composed during the first days of May 2018 at the same studios for a concert with the theme 'acousmatic and rock', curated by Jorge Sad Levi for the Acousmonium of Blind Sound Experience - Fundación Mercedes Sosa, in Buenos Aires, 1st June 2018.

To render the multichannel version, it was used the spatialization software *SuperDiffuse* by James Surgenor, <https://www.jamessurgenormusic.com/superdiffuse>

Mental and physical journeys into space and time are the topics of this work, linked to the extended realities conference theme.

Dedicated to David Bowie.

Allotropy

As the title suggests, several different types of sound material coexist in the piece, recorded in various environments and settings, forming rich musical textures and layers of diaphanous ambience. We can think of the piece as a two-part composition that explores the relationship between sound masses and movement in space.

Les paradoxes d'une sphère tronquée

The paradoxes of a truncated sphere is a large aviary constructed like a 3D puzzle swarming with images and animated objects.

This half shell, this curved surface open onto the void, then forms a paradoxical loudspeaker space with remarkable properties because, fortunately, the truncated sphere is also a rigged dome!

This assembly traverses in a whimsical way about thirty years of sound recordings and capture techniques microphonic (embellished with a few borrowings taken here and there...) that I cut, juxtapose and shamelessly overlap all around the listeners.

Because the capture of space sounds and the multiple ways they reveal themselves to us using loudspeakers is always a source of wonder, and with these paradoxes I find a fantastic playground.

And then, behind the somewhat baroque encounters, through more or less predictable coincidences, a story gradually takes shape around these fragments of disappeared lives ...

TEST

"Test" is a study in sound art composition. The work features the extrapolation of dissonances from computer-generated material to convey a refined nuance in technological disintegration. As such, the work applies spectromorphological processes to material that is of a technological quality. This is a compositional "test" regarding the flexibility of spectromorphology. Furthermore, it should be noted that the concept of extended realities is at the core of "Test". Not only does the work extend the musical reality of the technological through investigation into its individual nuances, but it also extends spectromorphology into a new compositional domain (i.e. using aspects of it as a compositional tool outside of the realm of acousmatic music).

Anamorphosis

Anamorphosis involves the processing of two contrasting structures, which are emphasized in the first part of the composition. Both are based on the brief sound of a wooden door which, however, does not appear in its original form in the work. The structural nature of this sound, a rapid sequence of short repetitions varying in length, leads to the spectral and temporal variations of these structures, which are tonally developed in the second and third, more reprise-like sections. Spatialisation: Ambisonic. *Anamorphosis* was awarded first prize by the jury as well as the prize of the audience at the international composition competition of the "21st Weimar Spring Festival for New Music 2020" (Weimarer Frühjahrstage für Neue Musik 2020). In August 2020 *Anamorphosis* was also awarded at the 23rd international composition competition "Destellos 2020" in Argentina (Honorary Mention).

Akzeleration (ZEITgezeichnet 1)

„For time measurement, systems are used that periodically return to the same state. ..The time is determined by counting the periods... Time, and thus frequency, its mathematical reciprocal value, has a clear, irreversible direction in contrast to other physical quantities...“

For *Akzeleration (ZEITgezeichnet 1)* I used a tool from my audio program to draw waveforms and multiply them to produce sounds. I don't use any generators, just some basic functions of the computer. The piece is literally drawn in detail as well as in form in all its parameters over the surface of the program.

All direction, delay and movement effects of the drawn sounds result from their arrangement due to the visible level and phase constellation. There are no artificial reverberation or echo effects.

As a result, the sounds all have a very individual, immediate character. The piece unfolds appropriately only in a 6-channel reproduction.

Zum

Three complete sonic entities // one sonic space. A collective construction, a reflection of different interpretations and the interaction of the same idea. Virtualization of the dialogues.

Peter Ablinger was born in Schwanenstadt, Austria in 1959. He began studying graphic arts and was enthused by free jazz, but completed his studies in composition with Gösta Neuwirth and Roman Haubenstock-Ramati in Graz and Vienna. Since 1982 he has lived in Berlin, where he has initiated and conducted numerous festivals and concerts. In 1988 he founded the Ensemble Zwischentöne. He has been guest conductor of 'Klangforum Wien', 'United Berlin' and the 'Insel Musik Ensemble'. Since 1990 Peter Ablinger has worked as a freelance musician. 2012 he became a member of the Academy of Arts Berlin. 2012-2017 he was research professor at the University of Huddersfield. "Peter Ablinger is one of the few artists today who uses noise without any kind of symbolism - not as a signifier for chaos, energy, entropy, disorder, or uproar; not for opposing something, or being disobedient or destructive; not for everything, for eternity, or for what-have-you. As in all these cases of music deliberately involving noise, noise is the case, but for Ablinger: this alone. Peter Ablinger has also come a long way in questioning the nature of sound, time, and space (the components usually thought central to music), and his findings have jeopardized and made dubious conventions usually thought irrefutable. These insights pertain to repetition and monotony, reduction and redundancy, density and entropy." (Christian Scheib, edited by Bill Dietz).

<https://ablinger.mur.at>

With a previous education in visual arts, **Alejandro Albornoz** studied electroacoustic composition with Rodrigo Sigal and Federico Schumacher and works on acousmatic and live electronics since 2004. His music has been performed in several festivals like Synthèse (Bourges), JIEM (Madrid), BIMESP (São Paulo), Sonoimágenes (Buenos Aires), Sound Junction (Sheffield), Evimus (Saarbrücken) and the Semaine Internationale de la Musique Electroacoustique (Lille). He is an active member of the Latinamerican Sound Art Network. Usually he composes for performing arts. He has been producer of several concerts, meetings and publications, highlighting the Festival of Electroacoustic Music of Chile "Aimaako" and collections of Chilean electroacoustic music. He has a PhD in Electroacoustic Composition obtained at the Department of Music at the University of Sheffield, under the supervision of Adam Stanović. The central topics in his research are the human voice, poetry and language.

<https://alejandroalbornoz.wordpress.com>

Alyssa Aska is fascinated with the architecture of music, both spatially and temporally. She composes works which explore extremes in time and space, using rigid proportions to generate forms in acoustic works and exploring the unpredictable duration and lack of control in gamified works. This is closely tied to her compositional style, which is concerned with a delicate balance between elements of functional form and elements of pure aesthetic purpose. As much structure as possible, as many ornaments as necessary (and vice versa). She studied in the US with Robert Kyr, David Crumb, and Jeffrey Stolet, in Canada with Robert Pritchard, Keith Hamel, and David Eagle, and in Austria with Marko Ciciliani and Klaus Lang. Her works have been performed worldwide at various concerts and festivals such as ICMC, EMS, Impuls, Darmstadt Summer Courses, Musikprotokoll, Tonraum21, ComposIt, Mirkofest Helsinki, Microtonal Festival Prague, CrossROADS Festival, WasteLAnd Academy, and others. <http://www.alysa-aska.com>

Natasha Barrett composes acousmatic and live electroacoustic concert works, sound-art, installations and interactive music. Her inspiration comes from an experience of the sounding world around us, as well as the way it behaves, the way it is generated, and by systems and the traces that those systems create. These interests have led her into worlds of cutting-edge audio technologies, geoscience, sonification, motion tracking and some exciting collaborations with soloists, chamber ensembles, visual artists, architects and scientists.

Her work is commissioned and performed throughout the world. She has received a solid list of prizes, including the Nordic Council Music Prize, (Nordic Countries), Giga-Hertz Award (Germany), Edvard Prize (Norway), Jury and public first prizes in Noroit-Leonce Petitot (France), five prizes and the Euphonie D'Or in the Bourges International Electroacoustic Music Awards (France), prizes at Musica Nova (Prague), TEM - international composition competition (Italy), CIMESP (Brazil), Concours Scime, (France), International

Electroacoustic Competition Ciberart (Italy), two prizes in Concours Luigi Russolo (Italy), two prizes in the International Rostrum for electroacoustic music, and honorary mentions in two Ars Electronica competitions (1998 and 2017).

Active in performance, education and research, she jointly directs EAU (Electric Audio Unit - the Norwegian spatial-music performance ensemble), founded 3DA (the Norwegian society for 3-D sound-art), and is currently professor of composition at the Norwegian Academy for Music, Oslo.

<https://www.natashabarrett.org>

Marko Ciciliani (*1970, Zagreb) is a composer, audiovisual artist, performer and researcher based in Austria. The focus of his work lies in the composition of performative electronic music, mostly in audiovisual contexts. Interactive video, light design and laser graphics often play an integral part in his compositions. Ciciliani's music has been performed in more than forty-five countries across Eurasia, Oceania and the Americas. As a result of his interdisciplinary practice his work can be found in different genres. It has been programmed at festivals and concert series of electronic experimental music such as *Experimental Intermedia*, NYC, *Club Transmediale*, Berlin, *SuperDeluxe*, Tokyo, *Ibrasotope*, São Paulo or *Findars*, Kuala Lumpur; by festivals for post-avantgarde music such as *Donaueschinger Musiktage*, *Huddersfield Contemporary Music Festival* or *Maerzmusik*; just as well as in the context of media art, as in the festival *Ars Electronica* or with *iMAL*, Brussels.

Ciciliani is Professor for Computer Music Composition and Sound Design at the Institute for Electronic Music and Acoustics (IEM) of the University of Music and Performing Arts Graz. In 2014, 16 and 18 he has taught as tutor at the "Summer Courses for Contemporary Music Darmstadt". As of 2020 he is artistic director of the interdisciplinary workshop for young creators ChampdAction.LAbO, as well as of the festival TimeCanvas@DeSingel in Antwerp. <http://www.ciciliani.com>

Jean-Marc Duchenne is born in 1959. After classical musical studies at Dijon (clarinet, composition, licence of musicology) he has learned acousmatic in the class of Denis Dufour at Lyon.

Since the late 80s, his aesthetical and technical researches on space and his compositions have continuously fed each other. This has led him to develop his own creation tools, like his studio-acousmonium in the early 90s (62 channels today), the series of *AcousModules* multichannel plugins in the 2000s, and the original speakers ensembles that constitute the *AcousMobile*.

Concerts, installations or live situations, his compositions always tend to make sound feeling as *touchable images*. Working with high number of speakers allows him to create sensible sound constructions, from nearly narrative "movies-for-the-ear" to abstract mobile architectures. The proximity to the listeners constitutes also an important aspect of his work, where he can combine the pleasure of discovery with the experimentation of new artistic forms (read and listen on <http://sonsdanslair.free.fr>).

Depending on the period, he has also taught acousmatics, digital sound techniques and MAO in different schools and universities.

Gerhard Eckel uses sound to explore unconventional ways of world making. He aims at articulating aesthetic and epistemic forms of listening, engaging all senses and not only audition. His works are the result of research processes drawing on the practice and theory of music composition, sound art, choreography and dance, installation art, interaction design and digital instrument making. Gerhard is professor of Computer Music and Multimedia at the Institute of Electronic Music and Acoustics of the University of Music and Performing Arts Graz. He also serves as affiliated professor at the KTH Royal Institute of Technology and as visiting professor at the Royal College of Music, both in Stockholm. <http://iem.at/~eckel>

Ludvig Eiblaus is an artist and researcher working primarily with computational materials to create acoustic and electronic music, sound art, audio-visual installations, museum exhibits as well as contributions to collaborative larger works, such as opera, theatre, and dance performances. He received his PhD at the Sound and Music Computing group at the KTH Royal Institute of Technology. In his artistic practice he explores generative complex systems, emergence, endless variation and stochastic processes. Materiality and crafting is also central to his work, as well as experiential aspects of very slow and drawn out temporal structures and deep listening. <http://ludvigelblaus.com>

Mariam Gviniashvili is an Oslo-based composer and sound artist originally from the country of Georgia. Her current focus is on multichannel electronics and investigating the role of spatiality in composition. Her artistic practice extends to audiovisual and interactive sound-art works, live improvisation as well as collaboration with performers. www.mariamgviniashvili.com

Tor Halmrast (b.1951 in Sarpsborg, Norway), Composer and Acoustician. Selected works: "Alfa og Romeo" (RadiOpera, Norw. Radio Symph. Orch. Awarded European Broadcasting Union's Prix Italy). "Music for the Norw. Pavilion at the World's Fair" in Seville, price for best composition/sound installation). "Retning" (Award in EBU Rostrum). Arranger and studio-musician (Spelemannsprisen/Norw. Grammy). Acoustical design of buildings for Opera, Theatre, Concert, Music Education and Studio. Numerous scientific papers on room acoustics. Assoc. Professor at both University of Oslo/Musicology and Norw. Academy of Music. <http://tor.halmrast.no>

Ralf Hoyer, born 1950 in Berlin / sound engineer studies at the Hochschule für Musik "Hanns Eisler" Berlin/ 1977-1980 master student for composition at the Akademie der Künste with Ruth Zechlin and Georg Katzer, since then freelance / compositions for chamber music ensembles, choir, orchestra, chamber opera and electronic music / music theatre installations, multimedia projects and sound installations / various prizes, scholarships and working stays / founding chairman of the Initiative Neue Musik Berlin 1991-93 / 2010-2013 chairman of the Berlin Society for New Music / commissions from international festivals, theatres and radio stations, performances in various European countries. Rome Scholarship of the FRG 2015. www.ralfhoyer.de

Heidi Hörsturz deals with the various facets of the moving image and sound. She works in a wide range of computer animations, audiovisual performances and multimedia installations. Her works examine the influence of new technologies and the social questions that have arisen as a result of digital development. With her approach of art as a medium for exploring social coexistence and as a means of ending the structural suppression of people, fantasies and visions, she takes the media overload of stimuli to the absurd. After completing her studies at the ArtEZ University of the Arts in the Netherlands she has presented her work worldwide. ICA London, Multimedia Art Museum Moscow, CultureHub NYC, FILE Sao Paulo, European Media Arts Festival, Athens Digital Arts Festival and Electro Mechanica St Petersburg among others. Currently, she is investigating the intersections between hyper identities, digital culture and sonic art. <https://www.heidihoersturz.com>

Alisa Kobzar (*1989) - composer, multimedia artist, teacher, graduated (MA) from Kyiv National Music Academy (Ukraine) in 2014 (department of composition, instrumentation and musical informational technologies). Since 2018 she lives in Graz (Austria), studies Computer music in Graz University of Arts (with prof. G.Eckel) and works within the research project "Inter_agency". Alisa took part in different international composers' masterclasses on instrumental and electronic music, festivals, workshops, residencies. Her music is performed in Ukraine, Poland, Germany, Austria, Sweden, Russia, Ireland, Portugal, Italy. Her compositions include instrumental, chamber, symphonic, electronic, electroacoustic music, multidisciplinary and interactive multimedia projects.

Lisa McGuire (*1991) - dancer, performer, gyrokinesis trainer. Got certification in IGTanz Steiermark, GYROKINESIS(R), GYROTONIC, studied in the summer-school of Martha Graham (New York, USA), attended private ballet classes along with Afro Modern Cuban dance class, as well as contemporary performance classes of Valentina Moar, Bostjan Ivanjsic, Tomas Danielis and others. She took part in the La Strada festival (Graz, 2020) in the choreographic project of Kitt Johnson, choreographic project by Liz King (Graz, Austria, 2015), Refugium Graz (IGTanz), interactive dance-performance by Bühnenwerkstatt (Graz, Austria, 2017). Lisa had successful interactive performance improvisations with live musicians, sculpture, theatrical performances, she was filmed for dance videos and advertisements.

Duo rotkäppchen (Alisa Kobzar - composer, multimedia artist; Lisa McGuire - dancer, performer) is an intermedial collaboration between dance, music and visual art, artistic result of which happens in real-time and never repeats in the same way.

The main idea based on developing the language of nonverbal communication between the dancer and composer/visual artist while active co-following (active listening, active seeing) and immediate reactions. Using the means of technologically extended art these reactions could be performed both with the help of human factor and with the help of pre-programmed sensors' data, derived from human actions (diverse movement, sound, picture analysis).

Before the performances as today's representations of the project's state, the project-oriented reaction-communication chains are developed. Technology in this multimedia collaboration extends/stretchers the art, supports the indirect connections between diverse art-forms, bringing up as a result "melted", merged individual and always different art form.

Paul D. Lehrman studied electronic music at Columbia University under Vladimir Ussachevsky, Mario Davidovsky, and Charles Dodge, and received a BFA in orchestral performance as a bassoonist from Purchase College Conservatory. He has a PhD in Interdisciplinary Studies (Music/Electrical Engineering/Art History) from Tufts University. He was the principal author of the longtime standard college text on MIDI, *MIDI For The Professional* (Music Sales Corp.), has consulted for many electronic music hardware and software companies including Yamaha, Roland, and Kurzweil, and served as executive director of the MIDI Manufacturers Association for four terms. He has been a columnist for *Recording Engineer/Producer* and *Mix* magazines, and a contributor to *Wired*, *SoundOnSound*, and many other publications.

His music has been heard on films shown on PBS, A&E, BBC, Canal+, Arte, and France 3, and he has received numerous commissions for live performance works involving computers. His 1999 realization of George Antheil's 1924 *Ballet Mécanique* for MIDI-driven player pianos has put him on the stage at Carnegie Hall, Royal Festival Hall, Boston Symphony Hall, and San Francisco's Davies Hall, among many others, and his documentary film about the project, *Bad Boy Made Good*, was shown on PBS and has won festival prizes in the US and Europe.

He taught in the Sound Recording Technology program at the University of Massachusetts Lowell, and since 2000 has been on the faculty of Tufts University where he teaches courses in computer music, musical instrument design, and electronic music history, and is the director of the program in Music Engineering. <http://www.paul-lehrman.com>

Pablo Mariña (México, 1989) graduated from Centro de Investigación y Estudios de la Música (CIEM), student of teacher María Antonieta Lozano and part of the composition workshops given by Enrico Chapela, Víctor Rasgado and José Julio Díaz Infante. He has taken master classes and seminars with cellist Johannes Moser and with violinist Irvine Arditti.

He has composed music for several experimental animation short films, including "L.(VR)" exhibición in Virtual VIS Vienna Shorts, Vienna, Austria, 2018. "L." selected for exhibition at Bienal UNL, Argentina 2016; Animasivo, Mexico 2016; SGAE, Spain 2016. "Celeste" at Cisneros Fontanals Art Foundation (CIFO) in Miami, Florida 2014. Also, finally "I." for the Germinal Festival in Casa del Lago 2014.

He was part of Los Juiles, an ensemble of folk music, and in December 2012 they premiered and performed his work "Coacción" for percussion Basset and disarmed battery, transmitted in Opus 94.5 and RadioUNAM.

His works: "T.A.B.U." for flute and live electronics was premiered and recorded by Alejandro Escuer at Antiguo Colegio de San Ildefonso (2016). "Dimensión" for Chamber Orchestra was part of the selection and premiered in the Festival Ciudad Sinfónica 2015. "Dogma" for string quartet and "F.M." for wind quintet, were premiered by the Quartet Arcano and the Quinteto de Alientos of Mexico City respectively, in the Manuel M. Ponce Hall of Fine Arts.

Adam Melzer is a young, Sydney-based composer. His compositional work is varied, but more recently has focussed in on both acousmatic and experimental music domains. He graduated from the Sydney Conservatorium of Music in 2019 with the result of a First Class Bachelor of Composition (Honours). In the past, he has put on his own concerts as a part of Audioshape; been a featured artist in the November 2019 playlist "Evolving Waves", curated by Making Waves New Music; and been a featured artist in the 2020 Hibernation Festival, with the contribution of three livestreams and three audiovisual works. Currently, he is just beginning his PhD at the Sydney Conservatorium of Music.

<https://makingwavesnewmusic.com/pastcomposers/adam-melzer>

Clemens von Reusner, born in 1957, is a composer and sound artist. At the center of not only his electroacoustic music, but also his radio plays are sounds that are generated electronically and those discovered at particular places. The latter are mostly derived from atypical situations, such as the soundscape of an industrial port, places with special technical equipment or nocturnal soundscapes of a large city. In the late 1980s he developed the KANDINSKY MUSIC PAINTER music software.

He has been commissioned to compose works for radio and his works have been frequently performed in Asia, Europe and North and South America. He has been invited to the World New Music Days in 2011 (Zagreb), in 2017 (Vancouver) and in 2019 (Tallinn).

Clemens von Reusner is a member of the German Composers 'Association (DKV) and the Society for New Music (GNM), as well as of the German Society for Electroacoustic Music (DEGEM). He has also worked as a curator and served as a jury member at international electroacoustic music festivals. www.cvr-net.de

Martin Ritter studied composition in Canada and currently lives in Graz, Austria. He writes both electronic as well as instrumental works and is performed across Europe, North America, and Asia. As a composer he is interested in the intersection of music, technology, and performance. As a researcher he works with digital tools in order to analyze and understand electronic music. His music and research are featured regularly at conferences and festivals such as ICMC, NIME, EMS, eContact!, Impuls, Darmstadt, ComposIt, MusCan, TENOR. He has received scholarships like the Joseph-Armand Bombardier Canada Graduate Scholarship, the University of Calgary Technologies International Inc. Fellowship Scholarship, Alberta Innovates - Technologies Futures Scholarship, and the Joseph and Melitta KANDLER Scholarship for Advanced Music Study.

He holds a DMA in composition from the University of British Columbia where his primary teachers were Drs. Keith Hamel and Robert Pritchard, and is currently pursuing a PhD in Computational Media Design at the University of Calgary with Drs. Friedemann Sallis and Jeffrey Boyd. At the Universität für Musik und darstellende Kunst Graz he studied with Klaus Lang and Marko Ciciliani.

<http://www.martin-ritter.com>

Sound direction:	Matthias Frank
Technical assistance:	Batuhan Gülcan
Assistance:	Christof Ressi
Camera:	Alisa Kobzar
Streaming:	Marian Weger, IOhannes Zmölning
Moderation:	Daniel Mayer, Winfried Ritsch
Organisation:	Matthias Frank, Katharina Groß-Vogt, Daniel Mayer, Winfried Ritsch, Marian Weger, IOhannes Zmölning, Franz Zotter

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