

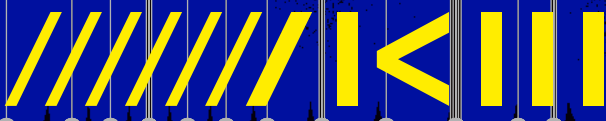
ZKM | Hertz-Lab  
presents



# g i g a hertz preis

27. - 28. november  
2021

festival



zkm karlsruhe

# Preface

The Giga-Hertz Award 2021 for electronic music was announced with the thematic focus on biomedica. Admittedly, this term allows for a very broad range of possibilities. Peter Weibel describes this thematic field as follows: »After the moving machines of the 19th century and the moving image media of the 20th century, the horizon of BioMedia opens up in the 21st century. We are looking for biomimetic, especially acoustic, artworks that exhibit life-like behavior, i.e., that are autogenerative, autopoietic, responsive, AI-assisted, and algorithmically controlled. Expect the Unexpected: the unexpected, the unpredictable, the unplannable, the uncontrollable can be part of the algorithmic process.«

This topic gave hope for an adventure. In the context of the 187 submissions, the jury helped us take an unpredictable journey into the ideas and work of composers from 47 countries. Part of the jury were George Lewis, trombonist and professor at the renowned Columbia University New York, Kirsten Reese, professor of composition at the Berlin University of the Arts, Lydia Jeschke, managing editor for New Music and Jazz at SWR2, Detlef Heusinger, artistic director of the SWR Experimentalstudio as well as Ludger Brümmer, head of the ZKM | Hertz-Lab and Peter Weibel, artistic director of the ZKM.

After a long day of listening, viewing and discussing, the jury clearly decided on the works to be awarded this evening. Works that are characterized by a pronounced heterogeneity of aesthetics, technical means, artistic language and form, and that provide us with an exciting insight into the thoughts and means of expression of a global music scene.

## ● Ludger Brümmer

(composer, head of ZKM | Hertz-Lab, professor of composition for digital media, Staatliche Hochschule für Musik Trossingen)

# Saturday 27 Nov

11 a.m. Music Balcony  
– 18 p.m.

- **»Electrical Walks«**  
by Christina Kubisch  
Interactive Presentation  
electromagnetic panoramas from the  
urban area of Oslo

4 p.m. Lecture Hall  
Film screening

- **Lisa Rovner**  
»Sisters with Transistors«, (2020)  
about the pioneering women of electronic music.

7 p.m. Media Theater  
Giga-Hertz Award Ceremony

- **Viola Yip**  
»Bulbble« (2019) 12'–30'  
for 8 channel electro-mechanical self-built  
instrument with lightbulbs and relays
- **Yvette Janine Jackson**  
»Destination Freedom«  
(2017) 22'09"  
fixed media radio opera

9:15 p.m. Cube  
Giga-Hertz Award Concert I

- **Oscar Escudero & SWR Experimentalstudio**  
»BIO, the Piece About Your  
Pianist Life«, (2018–21) 16' \*  
for piano, video & live electronics  
piano Lluïsa Espigolé

- **Hongshuo Fan & SWR Experimentalstudio**  
»Conversation in the Cloud«  
(2020–21) ca. 12' \*  
for clarinet and AI musician  
clarinet Andrea Nagy

- **Mendi + Keith Obadike**  
»Fit (The Battle of Jericho)«  
(2016) 9'  
sound installation presented as fixed media

- **David Bird**  
»Iron Orchid«, (2021) 22' \*  
for piano and live electronics  
piano Ning Yu

- **André Damião**  
»Chloroquine Pop-ups«  
(2020) 9'15"  
audiovisual performance

- **Maja S. K. Ratkje**  
»Solo Voice and Live Electronics«  
live improvisation ca. 20'

- **Mark Pilkington**  
»Structured Behavior«  
(2021) 10' \*  
algorithmic audiovisual performance

\* world premiere

# Sunday 28 NOV

11 a.m. Music Balcony  
– 18 p.m.

- **»Electrical Walks«**  
by Christina Kubisch  
Interactive Presentation  
electromagnetic panoramas from the  
urban area of Oslo

11 a.m. Forecourt  
& 13 p.m.

- **»Electrical Walks«**  
(electromagnetic city walks)  
with  
Christina Kubisch

4 p.m. Cube  
Keynote

- **Christina Kubisch**  
»50 Years of Trials and  
Tribulations, Sound Installations  
and Compositions from 1971  
to 2021«

7 p.m. Cube  
Giga-Hertz Award Concert II

- **Christina Kubisch**  
Electroacoustic Compositions with  
Electromagnetic Fields (1980–2021)  
sound direction Eckehard Güther
- **»Speak & Spell«** (1983) 7'30"  
for computer with a voice synthesizer, Casio VL-I,  
whirly tubes and electronics
- **»Homage with Minimal  
Disinformation«** (2006) 4'41"  
for electromagnetic sounds
- **»Night Flights«** (1986) 8'54"  
for Synare S3X, glass instruments, sampled sounds  
and natural sounds
- **»Bewegungen nach entfernten  
Orten«** (2010) ca. 9'  
for electromagnetic fields
- **»Armonica«** (2006) ca. 6' (excerpt)  
for glass harmonica
- **»Schall und Klang«**  
(2017) ca. 15' (excerpt)  
radio play about the acoustic research in the  
Gravesano studios of Hermann Scherchen  
for voices, synthesizers, electromagnetic sounds,  
field recordings and electronics
- **»Undercurrents«** (2018) ca. 20'  
for percussion and electromagnetic sounds  
percussion Katharina Ernst  
electronics Christina Kubisch
- **»Travelling Voices / Viaggio 3«**  
(2021) 4'15" \*  
for voices
- **»Transit Journeys 1«**  
(2021) ca. 13' \*\*  
for voices and electromagnetic fields

\* german premiere

\*\* world premiere

Film screening

● **Lisa Rovner**

»Sisters with Transistors«, (2020)

about the pioneering women of electronic music.

»Sisters with Transistors« is the remarkable untold story of electronic music's female pioneers, composers who embraced machines and their liberating technologies to utterly transform how we produce and listen to music today.

The film maps a new history of electronic music through the visionary women whose radical experimentations with machines redefined the boundaries of music, including Clara Rockmore, Daphne Oram, Bebe Barron, Pauline Oliveros, Delia Derbyshire, Maryanne Amacher, Éliane Radigue, Suzanne Ciani, and Laurie Spiegel.

## Giga-Hertz Award Ceremony

● **Viola Yip**

»Bulbble« (2019)

12'–30'

for 8 channel electro-mechanical self-built instrument with lightbulbs and relays

● **Yvette Janine Jackson**»Destination Freedom«  
(2017)

22'09''

fixed media radio opera

## Honorary Mention 2021

● **Viola Yip**

»Bulbble« (2019)

12'–30'

for 8 channel electro-mechanical self-built instrument with lightbulbs and relays

**Jurystatement** ...narration resembles music in that it fills time, "fills it out decently", "divides" it and makes that "there is something about it" and "something going on with it"...

Viola Yip refuses this narrative apostrophized by Thomas Mann in »The Magic Mountain«. Her fatherless art refers back to her "grandfather" John Cage. Her "point zero" in music history is a "short circuit", her new beginning a real "eclat". And yet she is a Gesamtkunsthandwerkerin – a synthesizing artisan – whereby this designation should not have any negative connotation here, but should simply be seen as an extension of Gesamtkunstwerk, since Yip herself lends a hand as an instrument maker and performer. In the process, she creates a minimusic that further condenses even minimal music, which sensibly and enlighteningly forms an informal music like installation from the aforementioned short circuit. Since in »Bulbble« she consistently exhibits the pure functioning of the electrical discharge as art, one can say with Jean Baudrillard: "If everything is functional, nothing is functional any more". The total negation of traditional musical contexts tells a new story; it is not a worship of new snow, as Theodor Adorno once polemicized, but a condensed striding from space into time, as described by Richard Wagner in »Parsifal«.

Parsifal: "I am hardly walking, yet already feel far ahead." / Gurnemanz: "You see, my son, here time becomes space."

by **Detlef Heusinger**

(artistic director of the SWR Experimentalstudio)

**Work description** »Bulbbble« is a self-built audiovisual electro-mechanical instrument that allows the performer to enact performances that connect the sonic, visuals (lights and shadows) and performative relationships between light bulbs, shadows, relays, controller, and the performer's body in a musical manner.

The mechanical relays form the basis of the piece: On one hand, their percussive sounds and their modulated pitches form the rich and yet focused sonic palette of the piece. On the other hand, the performer's gestures control the light bulbs, creating visual counterpoints between shadows and their overlapping forms, as well as new architectures of the space. The performance aims to communicate a fluid conception of music between lights and sounds.

## Production Award 2021

### ● **Yvette Janine Jackson**

»Destination Freedom«  
(2017)

22'09''

fixed media radio opera

**Jurystatement** Yvette Janine Jackson's »Destination Freedom« is a multichannel fixed media composition, part of her series of works that combine theatre, installation, and immersive electroacoustics to create what she calls radio opera. The work draws from Jackson's research on the oral histories of former American slaves, and its Afrofuturist orientation sonically imagines a spacetime journey by enslaved Africans from the inner cargo hold of a slave schooner to the zero-gravity of a spaceship.

»Destination Freedom« weaves together a complex assemblage of Foley, electronic synthesis, instrumental performance, sung and spoken recitatives, and field recordings of the sounds of water from San Diego Bay and Pier in Southern California, to advance an aesthetic of narrative soundscape that draws from history to examine social issues. The work asserts an historical mission, in the form of a sensory history in which the slowly unfolding narrative immerses listeners in the sonic ecology of slavery, including the indeterminate and uncertain Wittgensteinian timelessness that must have marked the horrors of the Middle Passage. In the end, the sonic materials of »Destination Freedom« can be said to deploy history, memory, legacy, and myth to confront the staggering moral contradiction between trafficking in persons and the Enlightenment itself. The final section of the piece, with its ironic juxtaposition of glacially slow tempo and Theremin-like blues soprano voice, poses the question of whether a fresh hell

or an Ethiopianist freedom and respite awaits the formerly enslaved in outer space.

»Destination Freedom« represents the future of a creolized sonic art in which new subjects for opera and musical theater offer new possibilities for a decolonized Afrodiasporic Gesamtkunstwerk without borders or limits. For this technically pristine and emotionally affecting work, the jury of the Giga-Hertz Prize 2021 awards Yvette Janine Jackson a Production Award.

by George Lewis

(fellow at Wissenschaftskolleg zu Berlin, 2020–21 & Edwin H. Case Professor of American Music, Columbia University)

**Work Description** »Destination Freedom« is part of a series of radio operas themed around the Middle Passage stage of the transatlantic slave trade. The journey begins in the hull of a cargo ship transporting Africans to the Americas. Time collapses and expands as the vessel morphs into a spacecraft on an elusive search for freedom. Jackson's radio operas are intentionally abstract, allowing space for listeners to draw upon their own experiences and preexisting knowledge in order to collaborate a narrative. The composition is often presented in darkness to help the audience activate the theatre of the mind as the story unfolds in three scenes: aboard the tall ship, along a disorienting transit, and a cathartic arrival into space. Materials used to create »Destination Freedom« include field recordings from San Diego and Paris, modular synthesis, Foley sound, and musique concrète from manipulated studio recordings of Jackson's Invisible People Ensemble, featuring Malesha Jessie Taylor's voice.



# Saturday 27 Nov 9:15 p.m. Cube

## Giga-Hertz-Award Concert I

- **Óscar Escudero & SWR Experimentalstudio**  
»BIO, the Piece About Your Pianist Life«, (2018–21) 16' \*  
for piano, video & live electronics  
piano Lluïsa Espigolé
- **Hongshuo Fan & SWR Experimentalstudio**  
»Conversation in the Cloud« (2020–21) ca. 12' \*  
for clarinet and AI musician  
clarinet Andrea Nagy
- **Mendi + Keith Obadike**  
»Fit (The Battle of Jericho)« (2016) 9'  
sound installation presented as fixed media
- **David Bird**  
»Iron Orchid«, (2021) 22' \*  
for piano and live electronics  
piano Ning Yu
- **André Damião**  
»Chloroquine Pop-ups« (2020) 9'15''  
audiovisual performance
- **Maja S. K. Ratkje**  
»Solo Voice and Live Electronics« live improvisation ca. 20'
- **Mark Pilkington**  
»Structured Behavior« (2021) 10' \*  
algorithmic audiovisual performance

## Production Award 2018

- **Óscar Escudero & SWR Experimentalstudio**  
»BIO, the Piece About Your Pianist Life«, (2018–21) 16'  
for piano, video & live electronics  
piano **Lluïsa Espigolé**  
video and electronics  
production **Óscar Escudero**  
dramaturgy &  
stage direction **Belenish Moreno–Gil**  
technical direction &  
live–electronics **Maurice Oeser**  
carpentry &  
mini–screens **José Manuel Moreno**  
with the generous collaboration of Phonos Foundation Barcelona

**Work Description** »BIO, the Piece About Your Pianist Life« is a staged platform accessible by any pianist. It automatically confronts the performer with a redesigned timeline based on the milestones of her/his professional career. By using a wide range of data taken from personal and family archives, social media and other information previously submitted, the work generates an alternative biography narrated in the first person, mixed with political opinions, which roots at the same time with the history of the piano. A path tracked by the holy concepts of "repertoire", the »great masters« and the educational institutions. world premiere

## Production Award 2019

- **Hongshuo Fan & SWR Experimentalstudio**  
»Conversation in the Cloud« (2020–21) ca. 12'  
for clarinet and AI musician  
clarinet **Andrea Nagy**

**Work Description** »Conversation in the Cloud« is a live multimedia composition for one human musician and one AI musician. The conversations of both musicians start at the intersection of reality and virtuality via music. Then, both musicians will push their limits through improvisation based on each other's music during the live performance. Finally, the two worlds gradually blend as the conversation deepens. The AI musician is a comprehensive system that applies multiple machine learning techniques to enhance its machine musicianship, such as deep neural networks and human body pose estimation. The combina-

tion of live multimedia and the performances of two musicians thus creates a multidimensional musical conversation.

world premiere

## Honorary Mention 2021

### ● **Mendi + Keith Obadike**

»Fit (The Battle of Jericho)«  
(2016),

9'

sound installation presented as fixed media

**Jurystatement** »Fit (The Battle of Jericho)« by the United States duo of Mendi + Keith Obadike is an installation whose physical materials are comprised of wall-mounted transducers that carry eight channels of sound, delivering sine tones, a folk-blues arrangement for voice and electric guitar of the well-known African-American spiritual, »Joshua Fit the Battle of Jericho«, and a nine-minute sound work, a lament of abduction, loss, and violence.

The piece deploys data sonification to render audible ominous correlations between the incidence of online searches for "Black Lives Matter" and incidents of racist violence and political protest found in online news reports. In the spiritual, "fit" becomes a linguistic alteration of "fought," and other sonic texts in the installation invoke such phrases as "fit the description," referring to the common pretext used by police for surveilling persons of color, and "fought the law," or resistance to state-sponsored injustice.

The spiritual is believed to have been composed by enslaved African Americans in the first half of the 19th century. Over the ensuing years, the song has been recorded by a great variety of singers, but this version reclaims the intent of its original composers, for whom the phrase "the walls came tumblin' down" referred to their hopes and aspirations for freedom from slavery.

For this sensually and intellectually affecting assemblage of data sonification with Afrofuturist technology and social justice, the jury of the Giga-Hertz-Award 2021 awards Mendi + Keith Obadike an honorary mention.

by **George Lewis**

(fellow at the Wissenschaftskolleg zu Berlin, 2020-21 & Edwin H. Case Professor of American Music, Columbia University)

**Work Description** »Fit (The Battle of Jericho)« is a multi-channel sound installation. It uses special wall mounted speakers and data sonification to vibrate a wall of the gal-

lery. The voices pan back and forth in the space. The piece begins with a fragment of the spiritual »Joshua Fit the Battle of Jericho«. As the lyric from the spiritual dissolves the song is extended with elements of a folk tale about the building of a wall and underscored by the sonification of online search data related to Black Lives Matter. The piece is a 9 minute looping work. This piece, a meditation on barriers and protests, was originally exhibited in Vijay Iyer's performance residency »Relation« at the opening of the Met Museum's Breuer building in 2016.

## Honorary Mention 2018

### ● David Bird

»Iron Orchid«, (2021)

22'

for piano and live electronics

piano Ning Yu

**Work Description** »Iron Orchid« is written for piano and electronics and was developed in collaboration with pianist Ning Yu. The work finds its inspiration from the piano's inherent materials (metal, ivory, wood, wire, etc.) and investigates the link between these material properties. Multichannel electronics aid in this fluid practice, establishing immersive sound environments that always evolve to create a larger expressive trajectory. Bird and Yu previously collaborated on the sound installation »Echo Chamber«, an 11-foot metallic structure created in 2019 with the artist Mark Reigelman. While it exists as a distinct work, the structure's resonant metallic tone haunts the production of »Iron Orchid«. Music theorist William Mason writes, "The sculpture is simultaneously absent and yet omnipresent. Stasis and momentum evoke motion through an imaginary environment, one haunted by a foreign and unknown object freighted with immense mass, and operating under its own logic." world premiere

## Production Award 2021

### ● André Damião

»Chloroquine Pop-ups«  
(2020)

9'15''

audiovisuelle performance

**Jurystatement** In his interactive work »Chloroquine Pop-ups«, André Damião impressively describes the situation of the Covid-19 pandemic in Brazil, which has now claimed over 500,000 lives. This is done by means of au-

dio-visual elements that Damião calls up with the help of Javascript within a web browser and invites to interact. He uses very expressive photos, for example empty graves, the narrative of rhythmically arranged numbers or finally white empty spaces that pop up rhythmically in multiple browser windows. This is accompanied by an insistent collage of soundscapes and dramatic sounds or clusters. Added to this are voices, images, individual words and the progression of the death rate as a graphic building block. At the same time, everything appears matter-of-factly abstracted, sparing exaggerated drama. In this way, he creates a dramaturgical element out of the otherwise so mundane pop-up window of the browser and transforms it, as an expression of visual rhythm, not only into an explicit pillar of information, but also into a musical element.

Damião frames all this as a drastic symbolization of a desperate, to put it with Martin Heidegger, being-in-the-world. At the same time, he formulates an explicit political indictment that is a clear expression of hopelessness and ignorance in the face of an unscrupulous political caste.

»Chloroquine Pop-ups« integrates auditory and visual means in a strikingly unusual way and captivates with a strong reduction and efficiency as well as with the intense effect created. The jury honors this impressive reinterpretation and musicalization of everyday digital information carriers with a production award.

by Ludger Brümmer

(composer, head of ZKM | Hertz-Lab, professor of composition for digital media, Staatliche Hochschule für Musik Trossingen)

**Work Description** »Chloroquine Pop-ups« is a web essay composed around the moment in which Brazil exceeded 100,000 deaths from SARS-CoV-2. The work exhaustively explores sound, visual and interactive elements of a web browser interface. Pop-ups, mouse movements, and the dragging of the screen windows constitute the ways of playing the instrument performing this composition.

The narrative proposed in the work is shown through images that formed part of the imaginary constituted during the quarantine period in Brazil until that moment. Some of these elements permeate the whole history, which is summarized in numbers. Counting, in this case, expresses not only the tautological and universal logic of the digital medium, but also the form in which we get gradually more anesthetized throughout the days while listening to the announcement of hundreds of new deaths.

● **Maja S. K. Ratkje**

»Corona Lockdown Concert for  
TUSK Festival 2020«

live improvisation

ca. 20'

**Jurystatement** For her artistically unique voice, cultivated over decades in the field of live electronic performances as a "performing composer", the jury of the Giga-Hertz Award 2021 awards Maja Solveig Kjelstrup Ratkje with an honorary mention. Exemplary for Ratkje's work is the 30-minute »Corona Lockdown Concert for TUSK Festival 2020«, which was performed as an audiovisual stream and in which the Norwegian vocalist and electronic musician performs with a live electronic set. She uses her voice as the sound source material, which she condenses into sound layers and textures through electronic manipulation, triggering it in a virtuoso interplay of software, interfaces and controllers, samples and recordings of digital and analogue instruments, while moving between the most diverse electronic processes in a shape-shifting manner. As an artist, Maja Ratkje is continuously expanding her spectrum of forms of expression. Whether in collaborations with improvising musicians, installations with text or visual material, in scores for large orchestral works, or in the collaboration with Sami singers and in the examination of Northern European singing traditions. An essential core of her work, however, remains live performances, often as a solo artist, in which she creates and transforms multi-layered, often unwieldy as well as disparate sound materials and weaves them into expressive dramaturgical arcs with surprising formal developments and unpredictable contrapuntal juxtapositions.

by **Kirsten Reese**

(composer and sound artist, director of the UNI.K | Studio for Electroacoustic Composition, Sound Art and Sound Research, UdK Berlin)

● **Maja S. K. Ratkje**

»Solo Voice and Live Electronics«

live improvisation

ca. 20'

**Work Description:** Maja Solveig Kjelstrup Ratkje has, since the end of the 1990s established a name in the scenes of noise, free improv and live electronics. Her main instrument being her own voice extended with an always changing array of electronic tools, first heard in groups such as SPUNK (which still performs), and as a soloist, starting with the release of her debut solo album »Voice« in 2002.

The set-up that Ratkje uses today is the same as shown in the awarded work »Corona Lockdown

Concert for TUSK Festival 2020«: Ratkje's voice through analogue and digital devices through a soundcard connected to computer with various software that is custom made for Ratkje in close collaboration with Norwegian developer Øyvind Brandtsegg. Ratkje records parts of her vocals while performing, and manipulates these voice recordings or samples at the same time as she is vocalising together with what she hears. Everything is created in real-time, so no concert will be the same.

Production Award 2020

● **Mark Pilkington**

»Structured Behavior«  
(2021)

10'

algorithmic audiovisual performance

**Work Description** »Structured Behavior« is an algorithmic composition that fuses both audio and visual entities. A series of algorithmic behaviors are mapped to custom designed audiovisual processes. Numerical relationships are established to generate a visual composition providing the basis of a complex interplay with the auditory level. The coexistence of human and machine interactions forms an ontogenetic structure that relies on continual relations between the user and technology. An ongoing structural change occurs from moment to moment, either triggered by interactions in an environment, or as a result of internal dynamics. The visual material consists of drawings of sound transformations in space. Sound material is from instrumental, modular synthesizers and environmental sounds. Non-linearity plays an important aspect in the temporal evolution of the invariant algorithmic design. It is precisely this emphasis on the evolving relationship between parameters and interactive feedback that characterizes the piece in terms of real-time adaptation, emergence and transformation.

world premiere

Sunday 28 NOV

11 a.m. &  
13 p.m.

Forecourt

Guided Tour

- **»Electrical Walks«**  
by Christina Kubisch  
Interactive Presentation  
electromagnetic panoramas from the  
urban area of Oslo

4 p.m.

Cube

Keynote

- **Christina Kubisch**  
»50 Years of Trials and  
Tribulations. Sound Installations  
and Compositions from 1971  
to 2021«

Christina Kubisch talks about her artistic coming-of-age, which began in the late 1960s as a student of painting and as a flutist. In the lecture, she illuminates her passion for making the hidden visible through technology, her fascination with spaces and locations, and aesthetic forks in the road that led her to her current multimedia art.

7 p.m.

Cube

Giga-Hertz Award Concert II

- **Christina Kubisch**  
Electroacoustic Compositions with  
Electromagnetic Fields (1980–2021)  
sound direction Eckehard Güther
- **»Speak & Spell«** (1983) 7'30"  
for computer with a voice synthesizer, Casio VL-I,  
whirly tubes and electronics

In the late 1970s, I bought a portable computer with a voice synthesizer in New York that was produced by Texas Instruments. It was a bright red and yellow thing, that looked like a flattened typewriter and weighed a considerable amount. It was intended as a learning tool for children, and fascinated me with its direct ways of producing sound by simply pressing on a letter printed on it. »Speak & Spell« consists almost entirely of recordings made with this "computer" plus sounds of whirly tubes swinging in the air, which were a very popular "experimental" instrument at the time.



● **»Homage with Minimal  
Disinformation«** (2006) 4'41"

for electromagnetic sounds

The city of New York is one of the places with the most intense electromagnetic signals I have ever heard. The recordings for this piece were made in August 2006 with custom-made sensitive wireless headphones, by which electromagnetic fields are detected and made audible. For several days I explored the area of Times Square, where you can find a large concentration of flashing neon advertisements, scrolling LED tickers, information screens and illuminated signs, all of them pulsating, flickering and moving constantly. All these devices create a dense net of nervous, rhythmic and constantly changing electromagnetic sounds.

Originally, I planned to do a piece in the style of the minimal music of the seventies, a period when I was performing for the first time at the "Kitchen", where the music of Steve Reich, Philip Glass etc. was played often. Somehow during the working process the "homage" took over its own life and became a pulsating net of minimal electromagnetic rhythms, just as I had experienced them walking around at Times Square.

● **»Night Flights«**  
(1986) 8'54"

for Synare S3X, glass instruments, sampled sounds  
and natural sounds

»Night Flights« is "nocturnal" music created by the combination of instrumental, natural and sampled sound material. The long vibrating sounds of tubular glass horns form a constantly changing melodic structure, accompanied by the cyclic beats of electronic drums and various field recordings in natural surroundings. In this composition I have tried to fuse elements of different origins in order to create a musical landscape imagining something like "Natural Electronics".

● **»Bewegungen nach  
entfernten Orten«**  
(2010) ca. 9'

for electromagnetic fields

In an old dictionary from 1912, the term "Reise" (travel) is explained as such: "Bewegungen nach entfernten Orten" (movements to distant places). Nowadays,

the idea of travelling faraway places is mostly seen as a digital journey and not as a real physical experience.

The sounds for this composition were made by recording with an electromagnetic induction headphone capturing the electromagnetic travel sounds of trains, busses, trams, subways and other transportation systems. The interesting thing while recording was the change of perception of everyday reality. Intense invisible wavelengths were contrasting the view of peaceful and sometimes uniform landscapes as well as the train compartments with passengers which experienced quite different soundscapes than I did.

The process of being at the same time in different worlds is almost like a double reality cinema. Everything is there. Real but at the same time very different due to differing sound experiences. It makes you understand that there are many realities by which we are surrounded – realities that we normally neither see nor hear.

● **»Armonica«**

(2006)

ca. 6' (excerpt)

for glass harmonica

In the early 2000s I made numerous installations with sounds of rare or unknown instruments. Among others, I was able to record an authentic glass harmonica invented by Benjamin Franklin in 1761 at the Musikinstrumentenmuseum Berlin: an unusual sounding instrument with hemispherical glass bowls rotating on an axis, which are made to sound with moistened fingers. The frequencies of the original glass harmonica do not have a perfect pure tuning and their beatings, accompanied by the rhythmic treading of the pedal for the rotation of the glass bowls therefore appear as tones that cannot be precisely classified. They are reminiscent of the ever-changing refractions of light in crystals.

● **»Schall und Klang«**

(2017)

ca. 15' (excerpt)

radio play about the acoustic research in the

Gravesano studios of Hermann Scherchen

for voices, synthesizers, electromagnetic sounds,

field recordings and electronics

In the middle of the last century, the conductor Hermann Scherchen moved to the Ticino village of Gravesano. There he built an experimental recording studio and created a venue for scientists, electroacous-

ticians and musicians from all over the world. Over the Christmas holidays of 1956, he was intensively engaged in the positioning of microphones. Christina Kubisch transforms the recordings of this study and combines them with further (historical) material as well as field recordings made on site in Gravesano, thus reflecting again on the connection between space and sound.

Voices: Hermann Scherchen, Kathrin Röggl

Synthesizer: Ekehard Güther

● **»Undercurrents«** (2018) ca. 20'

for percussion and electromagnetic sounds

percussion Katharina Ernst

electronics Christina Kubisch

»Undercurrents« is a dialogue between two different worlds, where the sounds of a drum kit meet with usually inaudible electromagnetic fields. The passing of electromagnetic sounds consists of recordings of digital communication systems, security barriers, light signs and other electrical impulses, recorded with the help of a special inductive headphone and converted into acoustic signals. The percussion reacts to these unknown sounds and tries to enter into a dialogue with them in various ways. In the end, both sound worlds meet in a special finale.

»Undercurrents« was written for Viennese percussionist Katharina Ernst and is the first piece in a series for solo instruments and electromagnetic sounds.

● **»Travelling Voices / Viaggio 3«** (2021) 4'15''

for voices

At the invitation of the Biennale Musica 2021 in Venice, I was able to record the choir of San Marco in Venice in both, individual voices and tutti. With these voices I went on a journey inspired by the fact that the composers and musicians of the Cinquecento spread their music all over Europe even before the mechanical printing of notes. The original recordings of the voices were played in several cities and places in ever new constellations, recorded again and again and reassembled.

»Viaggio 3« is based on two madrigals by Claudio Monteverdi. "Travelling Voices" was created as a commissioned work for the Biennale Musica Venice 2021.

german premiere

● »Transit Journeys 1«

(2021)

ca. 13'

for voices and electromagnetic fields

»Transit Journeys 1« is the beginning of a new series of pieces for instruments and electromagnetic sounds. The latter was recorded as "electromagnetic field recordings" during many international journeys in the past years.

Transit journeys are special encounters with a country where one cannot or is not allowed to get off and visit. What one sees and hears during transit is often a vague impression of a country, its train stations, ports or airports, fellow travelers, foreign languages and unfamiliar sounds. The discrepancy between what one perceives visually and auditorily is even stronger when listening to the respective electromagnetic fields than with purely acoustic sounds. When everyday recognition is no longer there, phenomenological questions about the authenticity of our receptive perception arise even more strongly than usual.

»Transit Journeys« are journeys through hybrid landscapes.

world premiere

Jurystatement

**World in the Ear –  
Christina Kubisch's Art With  
Sounds and Spaces**

A Brazilian frog jumps over a Swiss waterfall. The starry sky opens in the gasometer. An electricity box makes music... The sound artist Christina Kubisch finds and invents spaces whose existence, connection or expressive power we previously had no idea of.

**Outside and inside**

When we walk through the world with the induction-controlled headphones that Christina Kubisch has helped to develop, a new, completely exclusive world is created in our heads. Both are real – the inner and the outer world. Through the membranes of our bodies, they connect and thus enter into alliances that sometimes seem strange. A natural sound from another continent may at first – as in »Waldesruh« for a nocturnal sound walk at the Festival Neue Musik Rümlingen 2003 – fit harmoniously into the current natural context, but then it irritates. But both worlds, the one in the headphones and the one around us, are connected by the movement in which we experience them. Because with every step, other signals reach us – from the electromagnetic induction field as well as from our immediate surroundings. This is certainly one secret of the impressiveness in Christina Kubisch's induced works. Another lies in our trust in the power of imagination. Christina Kubisch's art projects set it in motion and give it a respective specific direction.

This direction is never abstract or artificially forced. Rather, once we have taken it in our imaginary world, it seems almost frighteningly obvious. The fact that no stars can be seen at night in a closed gas container is part of our urban world of experience. In Christina Kubisch's »Licht Himmel« (2006) for the Oberhausen Gasometer, they suddenly do exist – and even regardless of the time of day. However, in this permanent light-sound installation, we do not just feel that we have been transported into nature, but rather at the same time into a theater that reflects nature. Not by chance: Friedrich Schinkel's stage design for a performance of Wolfgang Amadeus Mozart's »The Magic Flute« was the inspiration for the 200 light points that symmetrically accentuate the steel girders of the Gasometer. The inner life of the gasometer with its various angles and sections is sounded out via loudspeakers. As we walk through the space, we pass various composed fields. Here, a real-fantastic world does not penetrate our innermost sensorium via vibrations picked

up in the headphones, but unfolds, walkable–experiential, in an architectural interior.

### **Blue and black**

Schinkel's dome of the sky is a deep blue, and luminous blue has also become a Christina Kubisch color over the years. In Oberhausen in 2006, the blue glow of the Gasometer sky is also visible from far away. Mostly, however, the blueness shines indoors, where it focuses individual perception. And it is then already the result of reaction and reflection: its origin lies in the invisible wave range of so called black light (or UV light). Usually used in research or forensics, it makes fluorescent surfaces – such as the optically brightened white clothing of visitors to an installation – appear blue. Above all, however, it makes visible what cannot normally be seen: organic traces such as those of lichens, bacteria or fungi in rooms and caves.

»consecutio temporum« is the name of a series of sound/light installations that began in 1993 in a former studio space of Joseph Beuys. Since then, Christina Kubisch has been discovering more and more places. These are places with a special but little–noticed history that she makes tangible. Sounds played over loudspeakers create resonances and reinforce spatial structures. In the dark room, the black light makes visible what is hidden in the brightness.

Making the hidden tangible – this desire is the driving force and a strong expressive moment for Kubisch's work. Since 2003, in her electromagnetic city walks »Electrical Walks«, she has been exploring vibrations that send electrical charges into our urban environment. Amplified in our headphones, we hear the electric fields of neon signs, mobile phones, tram overhead lines, power boxes and other current–controlled installations in our world. Like an acoustic black light, what existed before but remained hidden from perception appears. Chiming urban places of a new, at times quite eerie or alarming kind are created. The radio play »Desert Bloom« is based on the particularly "loud", diverse electronic sounds in Las Vegas, which Christina Kubisch collected there over several weeks with her special headphone technology. In 2016, »Desert Bloom« was awarded the Karl Sczuka Prize for Radio Play as Radio Art at the Donaueschingen Festival.

Christina Kubisch has always thought about the present and the absent. In 2011, she brought silence to Donaueschingen – paradoxically in the form of a sound installation for the Donaueschingen Festival. The word "silence" resounds in different languages, the sounds also become visually comprehensible in the sonogram. »Silent Exercises« asks – a few decades after John Cage –

once again at the traditional music venue whether and how silence can be named, practiced or heard.

### **Art and Science**

It has become clear by now: The sound artist (and occasional performer) Christina Kubisch does not distinguish between research and artistic work. Technical developments serve art projects, but at the same time their (further) development is fuelled by artistic ideas. This is the case in electromagnetic induction as well as in the incorporation of solar technology, which Christina Kubisch has been using since the early 1990s, especially in natural environments: Sounds are evoked by the incidence of light; the rhythm of the sun's rays determines the musical course.

Research and teaching became another field of activity, following international guest professorships especially at the Chair of Sculpture / Audiovisual Art, which Christina Kubisch held at the Hochschule der Bildenden Künste Saar from 1994 to 2013. During this time, Christina Kubisch influenced many students not only as a personality but also in her genre-spanning way of working. But even beyond this circle, she became, directly or indirectly, a pioneer for many artists of the following generation.

Finding paths: another recurring theme in Christina Kubisch's work. If we, as during the Darmstädter Ferienkurse 2018, have to find our own paths through a large, sounding cable forest in order to experience music, then with some luck we might arrive at our very own »Orchestra On A Wire« (the title of the interactive live installation for orchestra, electromagnetic fields, electric cables, induction headphones and string quartet) – a metaphor for the beauty of an auditive world always to be discovered anew.

For the creative and emphatic sensitization and aestheticization of our perception, for the diverse opening up of new worlds in the ear, the jury of the Giga-Hertz Award 2021 awards Christina Kubisch the main award for lifetime achievement

by **Lydia Jeschke**

(editorial director New Music and Jazz, SWR2)

# Biographies

## David Bird



David Bird is a composer and multimedia artist based in New York City. His work explores the dramatic potential of electroacoustic and multimedia environments, often highlighting the relationships between technology and the individual. His work has been performed internationally, at festivals such as the MATA festival in New York City, the Gaudeamus Festival in Utrecht (Netherlands), the Wien Modern Festival in Vienna (Austria), the SPOR festival in Aarhus (Denmark), the Musica Electronica Nova Festival in Wrocław (Poland), and the Festival Mixtur in Barcelona (Spain). He is a founding member of the New York-based chamber ensemble TAK, and an artistic-director with Qubit New Music, a non-profit group that curates and produces experimental music events in New York City. He is currently a Visiting Assistant Professor at Hamilton College and has previously taught courses in Composition and Computer Music at Columbia University, The New School, and the Stevens Institute of Technology.

## André Damião



André Damião (\* 1987) is an artist and researcher working transversely between the fields of music and media art. His work focusses on critique of technology, interface aesthetics, live coding, improvisation and mobility. He graduated in composition with an emphasis on electroacoustic music at State University of São Paulo (UNESP), and accomplished his Master and PhD in Creative Processes at the University of São Paulo, where he is a member of the Center for Research in Sonology (NuSom). Damião teaches composition and free improvisation at the São Paulo State Music School (EMESP Tom Jobim) and interaction design at the Istituto Europeo di Design (IED). He has been awarded scholarships to develop his research, including the Radio Art Residency in Halle, Germany held by Radio Corax and Goethe Institute. Some of his pieces have been presented in concert rooms and galleries in 20 countries, including festivals such as MATA Festival in New York, Sonorities in Belfast, Novas Frequencias in Rio de Janeiro, Gaudeamus Musikweek in Utrecht, Latitude Festival in Berlin, WhiteNoise in Mexico City, live.code.festival in Karlsruhe, 9th Media Art Biennale WRO in Wrocław and Píksel Festival in Bergen.



## Katharina Ernst



Katharina Ernst studied painting at the Academy of Fine Arts Vienna. She has been playing drums since the age of nine and deals with polymetric, complex and chaotic structures at the interface between music, visual arts and choreography. After her debut »Extrametric« (2018), her new solo EP »le temps« is now released on Ventil and Trost Records. She lives in Berlin.

## Óscar Escudero



Óscar Escudero (\* 1992) is a post-composer playing with augmented sound, video and virtual spaces. His focus lies on the gaps between the former-analogical concepts of "body", "time", or "stage" and their current state as total virtual representations.

His works have been commissioned by, among others, Münchener Biennale, ZKM | Karlsruhe, ensemble mosaik, CrossingLines, and Kuss Quartet. They and other artists brought them to numerous international festivals and stages, such as Kontakte Biennale (Akademie der Künste, Berlin), Kunstfest Weimar, L'Auditori de Barcelona, Fundación Juan March and Museo Reina Sofía (Madrid). Besides, his work has been honored with several international prizes such as an Honorary Mention at Prix Ars Electronica 2021 (for the work »Subnormal Europe«), Giga-Hertz Production Award 2018, Busoni Förderpreis 2017 (AdK Berlin) or Premio Jóvenes Compositores Fundación SGAE-CNDM 2015 (Spanish Ministry of Culture).

He has received several fellowships from, among others, the Ernst von Siemens Musikstiftung (Progetto Positano) or the Fondation Idella and annual residencies at the Residencia de Estudiantes (Madrid) and Fundación Antonio Gala (Córdoba). Besides, he works in tandem with composer and stage director Belenish Moreno-Gil, with whom he shares the direction of CLAMMY, a new ensemble for virtual music theater and technological research. Both of them are currently artists-in-residence at Música en Segura Festival (Spain) in the season 2021-22 and at HELLERAU Europäisches Zentrum der Künste Hellerau (Dresden) in the season 2022-23.

## Lluïsa Espigolé

Lluïsa Espigolé is intensively engaged in contemporary music. Her activity is focused on the performance and premieres as a soloist, chamber musician, on ensembles and interdisciplinary projects, sound performance and free improvisation. As a soloist she has pro-



noted and premiered many composers and collaborated with performers, improvisers and multimedia artists of the experimental scene, with regular appearances in festivals and venues such as 8Brücken Köln, Lucerne Festival, Festival Musica Strasbourg, Internationales Musikfestival Darmstadt, Sónar Barcelona, Alte Oper Frankfurt, Theaterhaus Stuttgart, KKL Lucerne, Philharmonie Luxembourg, ZKM | Zentrum für Kunst und Medien Karlsruhe, among others. Based in Barcelona, Lluïsa Espigolé develops pedagogical activities in collaboration with musical institutions and is currently professor of contemporary piano and chamber music at the CSMA University of Music in Zaragoza (Spain). Espigolé was most influenced by her teachers Yukiko Sugawara, Nicolas Hodges, Florent Boffard and Florian Hölscher. During her time at the Internationale Ensemble Modern Akademie (IEMA) in Frankfurt am Main, she also worked closely with the members of the Ensemble Modern.

### Hongshuo Fan



Hongshuo Fan 范弘硕 (\* 1990) is a Chinese cross-disciplinary composer, new media artist, and creative programmer. His work includes various interactive real-time multimedia content, such as acoustic instruments, live electronics, generative visual elements, light and body movements. His research and creative interest focuses on the fusion of traditional culture and cutting-edge technology in the form of contemporary art. His output spans chamber music, live interactive electronics, installations, and audio-visual works.

### Yvette Janine Jackson



Yvette Janine Jackson is a composer and installation artist who brings attention to historical events and social issues through her radio operas. She developed a tactile approach to composition as a student at the Columbia-Princeton Electronic Music Center during its transition into the Computer Music Center. She established the Radio Opera Workshop, an adaptable ensemble, to experiment with sound and narrative performance. Yvette's work has been featured at Fylkingen, Fridman Gallery, Borealis Festival, Banff Centre for Arts and Creativity, and in residence at Stockholm Elektronmusikstudion (EMS). She has presented on soundscape and memory at the Goethe-Institut Boston. Her album »Freedom« debuted as Contemporary Album of the Month in the January 2021 issue of The Guardian. Yvette is an assistant professor in

Creative Practice and Critical Inquiry in the Department of Music and teaches for the Theater, Dance & Media program at Harvard University.

### Christina Kubisch



Christina Kubisch, born 1948 in Bremen, belongs to the first generation of sound artists. After study visits in Germany, Switzerland and Italy, as well as guest professorships in Holland and France, among other places, she lived in Milan until 1987. Trained as a flutist and composer, she appeared early on with projects at the intersection of visual art, media and music. In the 1970s, these were primarily gender-critical video performances. This was followed, from the beginning of the 1980s, by space-related sound installations using magnetic induction and other mostly self-developed audiovisual means. In the mid-1980s, she also began to incorporate light into her works. Large-scale installations were created that combined visual and acoustic elements into a new unity. In 2003, Kubisch began working on her series of sound walks in public spaces, the so-called »Electrical Walks«, in which she invites the public to a hitherto unknown way of perceptual exploration of everyday environments with specially developed electromagnetic headphones. Christina Kubisch taught as Professor of Sculpture / Audiovisual Art at the Hochschule der Bildenden Künste Saar in Saarbrücken from 1994 to 2013. Since 1997 she has been a member of the music section of the Akademie der Künste, Berlin. Her installations, compositions and audiovisual works have been realized worldwide at internationally oriented festivals and shown in numerous museums and galleries. Christina Kubisch lives and works in Berlin.

### Andrea Nagy



Andrea Nagy, born in Budapest in 1978, received her first clarinet lessons at the Béla Bartók Conservatory with András Horn. She then took lessons, also in Budapest, with Béla Kovács at the Franz Liszt Academy of Music. This was followed by studies at the Hochschule für Musik Freiburg with Dieter Klöcker and Jörg Widmann. She continued her studies in the soloist class of Ernesto Molinari at the Hochschule der Künste Bern and received the Eduard Tschumi Music Prize Bern for the best soloist diploma of the year in 2006 as part of her final examination. This was followed by bass clarinet studies at the Bern University of the Arts, which she completed with a diploma in 2008.

Andrea Nagy received various prizes, including the scholarship prize of the Darmstadt Summer Courses in 2002 and the Kranichsteiner Music Prize of the city of Darmstadt in 2004. In 2006 she won the second and in 2009 the first prize of the Nicati Interpretation Competition of Contemporary Music organized by the Swiss Tonkünstlerverein.

She performs regularly in ensembles such as Klangforum Wien, Ensemble Modern, Ensemble Ascolta and collaborates with conductors and composers Heinz Holliger, Matthias Spahlinger, Enno Poppe and Helmut Lachenmann, among others. She is a member of Ensemble Aventure Freiburg, Ensemble Interface Frankfurt, Ensemble Linea Strasbourg, Ensemble Experimental at SWR Experimentalstudio Freiburg and oh-ton-Ensemble Oldenburg.

#### Mendi + Keith Obadike



Mendi + Keith Obadike are sound artists and composers. Their projects include a series of large-scale, public sound art works: »Blues Speaker (for James Baldwin)« at The New School and »Free/Phase« at the Chicago Cultural Center & Rebuild Foundation, among others. Their honors include a Rockefeller New Media Arts Fellowship, a Louis Comfort Tiffany Award, and a New York Foundation for the Arts Fellowship in Fiction, among others. Their recent projects are »Anyanwu«, a public sound installation; »Book of Light«, a sound and light show commissioned by Carnegie Mellon University; »Lift«, a music/video meditation on the song »Lift Every Voice and Sing« known as the Black National Anthem; the overnight musical work, »Lull, a Sleep Temple«; and a music/video work entitled, »The Sun«.

Keith received a B.A. in Art from North Carolina Central University and an M.F.A. in Sound Design from Yale University. He is a professor and Chair of The Department of Communication at William Paterson University. Mendi received a B.A. in English from Spelman College, Atlanta and a PhD in English from Duke University in Durham, North Carolina. She is an associate professor in the Department of Humanities and Media Studies at Pratt Institute in New York. They are currently serving as the David Tudor Composers in Residence at Mills College in Oakland, California.

## Mark Pilkington



Mark Pilkington is a composer and performer of electroacoustic music. His practice encapsulates sound and image as a means to extend spatial imaginings between real and virtual space. The coupling of images and sound is applied to the composition of acousmatic music, site-specific installation and screen-based works. Forging the immaterial and creative labor through a network of interwoven and augmented territories, his work increasingly queries the way operations carry great critical and creative potential. His artistic research focuses on the relationship between artistic genres and their respective aesthetic theories with reference to electroacoustic music, audiovisual, sound design and film. His audiovisual works have been performed, exhibited and screened at ICMC, ARS Electronica, Synchronesis festival, ZKM | Karlsruhe, MANTIS festival and the Open Circuit Festival.

## Maja Solveig Kjelstrup Ratkje



Norwegian composer and performer Maja Solveig Kjelstrup Ratkje operates in a wide range of the avant-garde field. Her music is performed by Ensemble Intercontemporain, Klangforum Wien, Oslo Sinfonietta, BBC Scottish Symphony Orchestra, Red Note Ensemble, PO-ING and many more. Portrait concerts with her music has been heard in Toronto and Vienna, she has been composer in residence at festivals like Other Minds in San Francisco, Trondheim Chamber Music Festival, Nordland Music Festival in Bodø, Avanti! Summer Sounds festival in Finland, Båstad Chamber Music Festival and Huddersfield Contemporary Music Festival.

She has received the International Rostrum of Composers in Paris for composers below 30 years, Scottish Award for New Music for »Aeolian«, second prize at the Russolo Foundation, and in 2001 she was the first composer to receive the Norwegian Arne Nordheim prize. Her solo album »Voice« got a Distinction Award at Prix Ars Electronica in 2003.

## Viola Yip

A native of Hong Kong, Viola Yip is an experimental composer, performer, improviser, sound artist and instrument builder. She has been interested in creating new self-built instruments and sound works at the intersection of composition, performance and improvisation, exploring various relationships between materiality, space, and our musical bodies in music.



Viola is currently pursuing her PhD in music at New York University. Her instruments and performances have been presented in music festivals and venues such as Issue Project Room, The New School, Look and Listen Festival (NY), Cycling '74 Expo (North Adams), Constellation (Chicago), Sonic Arts Research Center at Queen's University Belfast (UK), QO-2 (Brussels), micro currents | Festival für aktuelle Tiefkultur (Cologne), DARA string festival, A L'arme! Festival (Berlin), Seanaps Festival (Leipzig), Suture Festival (Soven), Festival für Immaterielle Kunst (Hamburg), ZHdK (Zurich), Klex Festival (Malaysia) and Ars Electronica Hong Kong Garden (HK).

The authorship of all work descriptions and biographies lies within the respective artists.

## Imprint

### Project team

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**Dominik Kautz**  
(project management, organisation & program)

**Sebastian Schottke, Simon Klumpp**  
(sound direction)

**Jakob Schreiber, Manuel Urrutia**  
(sound technology)

**Hans Gass, Manuel Weber**  
(light & event technology)

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(graphic design & layout)