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ARRAY -- Special Issue
International Computer Music Conference ICMC 2019, New York (USA)

In June 2019, the 44rd International Computer Music Conference ICMC took place in New York, USA. Organized in conjunction with the New York City Electroacoustic Music Festival (NYCEMF), the festival was presented as ICMC-NYCEMF 2019.
It hosted a vast number of a paper sessions, concerts and installations. Situated at NYU facilities in the heart of Manhattan, the program was stretched over several locations: while the paper sessions, key note talks, panel discussions and workshops as well as demo sessions took place at the NYU Education Building, there were several locations for concerts: the Loreto Theater at The Sheen Center for Thought & Culture, the synagogue of Hebrew Union College, the Fridman Gallery at 169 Bowery, and the Elmer Holmes Bobst Library at Washington Square, South New York. Also the installations were spread over several locations, including the aforementioned as well as NYU Black Box Theatre and NYU Library. As last year, the program also included a kids program.

This special issue of ICMA Array is dedicated to the ICMC-NYCEMF 2019, featuring reports and reviews of eight concerts and four installations presented ICMC 2019, contributed by Teresa M. Connors, Peter Huleň, Kivanç Tatar, Chryssie Nanou, Juan Parra Cancino, Jonathan Pitkin and Wing Lam Sin.

The full program as well as the conference proceedings are available online under https://nycemf.org (Program -- Papers / Concerts / Installation).

Miriam Akkermann (Editor) 2019
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**Concerts**

**Concert No 8**  
Tuesday, June 18, 2019, 8-10pm  
Sheen Center, Loreto Theater  
*Reviewed by Chryssie Nanou*

Part of the Sheen Center for Thought and Culture, the Loreto Theater is a small neoclassical house, that has had its 19th century architecture details restored to a beautiful small capacity space with sharp acoustics.

The order of the program in this review follows the actual performance order of the pieces and not the one on the printed programs. Included highlights were two of the 2019 ICMC Music Awards: Deborah Kim’s *Rhythms of Rain*, Best Music Award for Asia/Oceania and Marta Gentilucci’s *Auf die Lieder*, Best Music Award for Europe, and Akkermann’s *Shadow*. The program was a mix of fixed media and electroacoustic works.

The evening started with *Echoes* by Kwang Rae Kim with Keith Kirchhoff on the piano. The warm and easy to listen piece was nicely executed. The material used for the electronics was
inspired and generated not only by piano sounds but also by the motion and gestures of the pianist. The spatialization though did not come out very clearly through the mix.

Following was *Mutation* (as the mark that noise leaves upon presence) by Robert Seaback. *Mutation*, played by Samuel Wells, trumpet, Adam Vidiksis, percussion and Keith Kirchoff on the piano, seemed to derive from the idea that noise erupts and re-shapes material forms. It explored artificial structures made of resonances and noise that emerged from the acoustic instruments’ manipulations. A pleasant sound environment, amplified by the complicity of the performers, the piece had interesting interplays between traditional notation and experimentation.

The three performers continued on stage with *Kucha Lar* by Bahar Royaee. Processed sounds from all three instruments blended and slowly transformed through the electronics. Kucha Lar originated from a folk tune from Azerbaijan, a tune that came clear towards the end to wrap up the journey.

Miriam Akkermann’s *Shadow* for fixed media, focused the audience with a constant pulsing soundscape. The piece was a study of texture and motion. The layers constantly shifted from transparent to opaque and their motion within the room reinforced the game of density. It was an immersive soundscape with a beautiful ending.

Inspired by the legend of Go-shirakawa, a Japanese emperor who was torn between Buddhism and military, *Ryojinfu* by Hiromi Ishii for fixed media, exploited singing voices of Buddhist Chant, noises of a Buddhist ceremony and sounds of rice grains. The work was framed with ringing resonances of bells, traditional singing and had a ceremonial structure. The result was a compelling, dark and introspective piece with a dramatic unfolding towards lighter textures in time and space.

Next came PVC pipes, guitar picks roll, zither and drum sets designed and built by Worcester Polytechnic Institute’s Music, Perception and Robotics Lab: they were the Expressive Machines Musical Instruments (EMMI) that performed *Tempo Mecho* by Scott Barton, an exhilarating exploration of
tempi. Grooves and accelerations persisted throughout the piece. The visualization of all the polyrhythms rendered by the machines’ motions was fascinating to watch and translated the processes very clearly.

After the intermission Eleonora Claps, soprano and a percussionist whose name was not announced performed Marta Gentilucci’s Auf die Lieder, 2019 Best ICMC Composition award for Europe, a beautifully crafted and performed piece although a bit too fast. An ode to the voice, the artful mix of phonemes and fragments of words was blended and shadowed by percussive sounds and electronics. The blend created a delicate and intriguing sound environment where the listener was eased in all sorts of voice treatments such as hushing, breathing, frictions, and trilling along with an intricate play of subtle ringing percussive sounds. The piece that mainly gave the stage to the acoustic instruments, is part of a wider composition project that includes a Song Cycle based on the text of the Italian poet Elisa Biagini.

Using granular synthesis, Cerevo, for fixed media by Cort Lippe, was created, as the composer mentions, at the request of Felipe de Almeida Ribeiro for a premiere at the 2018 Symposia International de Musica in Curitiba, Brazil. A tribute to the Surrealist technique of ‘cadavre exquis’, its explosive introduction gave place to well punctuated passages where we barely had enough time to recognize sound material before they transformed to their essence.

Best Composition award for Asia/Oceania at ICMC 2019, Deborah Kim’s Rhythms of Rain for Janggu (Korean traditional drum) and fixed media with its motion graphics score, images and sounds of rain tied together into an energetic story telling. Kim’s compelling Janggu performance drove the piece, a mix of raw drum sound with well balanced electronics.

Two short fixed media pieces followed in the program: Antonio Scarcia’s Interludio ("And I rejoice in my bonnie Bell") and Hsien-Te Hsieh’s Crazy kitchen!. The first inspired by the words of a poem by Robert Burns, “My Bonie Bell” of 1791 was clearly articulated on interactions of two different registers while the second
was a three part chef’s meal with preparation, cooking, eating and cleaning up. *Crazy kitchen!* had a familiar feel and a fast pace bringing us in only four minutes very distinct sounds and a detailed and clear story of the meal.

The last piece on the concert was Brian Lee Topp’s …*to travel the distance of a changing feeling*… The piece used Robert Pritchard’s technology for responsive user body suit (RUBS), a tactile interface worn by the performers that allowed them to process audio output in real time, simultaneously triggering and manipulating audio samples by controlling fabric strip potentiometers sewn onto the suit. As per the program notes, the suit allows for discrete and continuous audio changes being generated through two different motions of contact; touch and stroking. The collaboration between Sarah Wasik, dancer and Margaret Lancaster, flute and movement, was choreographed by Emmalena Fredriksson and made the piece compelling and entertaining.

**Concert No 10**  
**Wednesday, July 19, 2019, 1.30 p.m.**  
**Sheen Center, Loreto Theater**  
**Reviewed by Juan Parra Cancino**

As it is tradition at ICMC concerts, there is a delicate balance between complexity, fragility and excessiveness that programmers, performers and audience are invited to negotiate. This particular instantiation was a good example of it from the get go, when it was announced that two of the pieces in the program, Stylianos Dimou’s *Machine Learning* for baritone saxophone and Paulo Brito’s …*nothing but a string of songs* for piano, had been cancelled. In turn, two pieces from previous concerts (Devin Maxwell’s *Cloudseeding 9 - Wind Harmonics* and Fred Szymanski’s *Horn Volley*) were given a second chance to overcome some technical difficulties.

The concert opened with *Spring Breeze Sweeps beyond Yumen Pass* by Yang Wanjun, with the collaboration of Lichuan Wang (composition) and Jinhao Han (live coding), a multimedia piece that presented three different layers of performative activity: Electronic sounds (which after reading the program notes seem to consist
mostly of Sheng samples pre-recorded from performer Yong Xu), a video track and the dancer Fei Wei.
The sum of this elements was a mix of traditional instrumental music and performance, and traditional sonorities deployed with technological assistance, but which remained all too constrained by the traditional aesthetics. The acoustic space, environmental sounds and instrumental sounds, remained somewhat underdeveloped throughout the piece, with all layers remaining in the same acoustic plane. The dancer-performer, who was very good, enhanced the problematic aspects of this piece by remaining “unchallenged” in her traditional role.

Jason Bolte’s Ambient-P, an acousmatic work, proposed a commentary to ‘tradition’ more in line to what is expected at a Computer Music conference concert. With a sound world evocative of experimental “generative music” soundscapes, focusing on amplitude and spatialization creates a contrast that gives a body to the structure of the piece. The pitch material remained somewhat static, which, reading the program notes, might be a natural thing given that the whole material derived from a limited set of initial sounds.

Steve Wann’s Edge of Sound for cello and electronics, worked beautifully as an étude of the cello as a resonant object, playing with a sense fragility of the material represented by extreme amplification, using amplification as facilitator and transformer.

The following piece, Meifeng Shih’s The Death Gaze of a Whale for double bass and electronics, took a very different approach to the presented solo string instrument and electronics setting. The opening, an interesting contrast between a very low-registered soundtrack, and the double bass used on the high register gave way to a development that felt somewhat stiff. The instrumental writing was not utilizing any of the potentials of the solo virtuoso idioms of the second half of the 20th century, and thus the electronic part remained very much in a separate plane. Towards the end, this contrast was blended and balanced into a more integrated mix by letting the electronic soundtrack recapitulate the bass material.
The first ‘replay’ piece, Devin Maxwell’s *Cloudseeding 9*, was built on an interesting contrast between noise and pseudo random tones. Particularly interesting was how the development of the pitch material was infused in a quasi-instrumental articulation fashion, while the noise ostinato prevailed as a crude reference. The ending had a very well crafted, humorous ‘tone’, how refreshing!

Fred Szymanski’s *Horn Volley*, an acousmatic composition, was up next, the second ‘replay’ work from another concert. There was an interesting contrast between the two distinct sound worlds of this work, both very densely crafted and presented as rich entities. The third act, the collision of the two sound worlds, was very effective as a resolution for materials that could have remained and presented as independent soundscapes.

The final piece of the concert, Aldo Lombera’s *LUCID*, revisited the mixed media setting of cello and electronics with the addition of a (live?) video component. My first impression was that the integration between instrumental and electronic material felt as if the cello was triggering some kind physical model of another instrument. There was also an evident, yet not banal interdependence between the electronic part and the video. Throughout the piece, this initial interdependence gave space to a more independent development, where the electronic sounds preserved both spatial and gestural independence from the instrumental and video components. Given the initial blending, it served as an interesting invitation to keep discovering the points of connection between the “augmented cello” and the environmental electronic sounds. The ending/coda, a very conventionally ‘musical’ crafted one, worked perfectly given the careful integration of all three components.

**Concert No 12**
**Wednesday, June 19, 2019, 8-10pm**
Sheen Center, Loreto Theater
*Reviewed by Kivanç Tatar*

The twelfth concert at the International Computer Music Conference ICMC took place at the Loreto Theatre, using a 2D ambisonics.
setup with 16 speakers. The composers presented the outcomes of their artistic research as twelve compositions of fixed-media and mixed-media ensembles. One type of artistic research, the research through art and design concentrates, following C. Frayling, on the research of materials, customization of technology, or procedures and results of practical experiments. This type of artistic research appeared as one of the common themes in the concert.

The concert started with Naotoshi Osaka’s *Kakekagami*, written for the cello and electronics. The composer coins the term “sound hybridization” to explore the notion of combining two sonic styles to create another. The piece consists of two main elements, the cello in the foreground while the electronics canvas the background. The first part of the piece conveys unidirectional reactive behaviors between the foreground and background, where electronics react to the sonic gestures of the cello. After the first part, the cello moves into a section of pizzicatos, and the unidirectional reactive behaviors shift. The electronics step forward and naturally become the foreground while cello stands back to cover the background. The reactivity is now on the hands of the cello performer. Although the cello is amplified, the instrument still stands individually throughout the piece. The sonic space is initially stationary in motion, yet the electronics start subtly exploring the virtual sonic space after the cello starts the section of pizzicatos.

In comparison, *Favorable Odds*, composed by Mark Philips, delves into the research through timbre varieties of overtone structures. The piece combines electronics and clarinet in mainly two sections: an ambient section and a rhythmic section. The structured improvisation in this piece explores overtone structures and their effect on the creation of ambient textures. The second part of *Favorable Odds* shifts the exploration of overtone textures to a test of rhythmic materials.

While Philips constraints this composition to rhythms based on a fixed grid, Robert Rowe’s *Melting the Darkness* explored fractured rhythms fused with textures that evolved gradually. This mixed-media work of Rowe coalesced live violin
performance with live electronics that are mixed with fixed-media material. The composition starts with a blend of violin and electronics, where the electronics reveals the canvas while the violin covers the foreground. In this first part of the piece, the electronics react to the violin, and this unidirectional reactivity changes its direction later in the piece. In the second part, violin covers the background while the electronics come forward, and the violin starts reacting to the sonic events of electronics. This shift in the direction of reactivity occurs in parallel with the change of the sonic vocabulary of the piece.

Natasha Barrett’s *Dusk’s Gait* narrates the darkroom conditions of acousmatic music concerts as a habitat of fictional creatures. While doing so, the composer raises the environmental issues of the Anthropocene by emphasizing the current loss of the natural habitat. The composition pictures a rich habitat of fictional sonic creatures. These sonic creatures go beyond solemnly reactive behaviors; the piece reveals interactive sonic conversations between the creatures. The fictional environment has multiple sonic species that resembles the richness of the natural habitat. Barrett creates characteristic traits of these sonic species using both textural and rhythmic similarities. The spatial motion of sonic species helps the audience to imagine the fictional world as a narrative in a human-made habitat. The types of sonic materials such as metallic or fluid-like sounds, appear as different sonic species in this fictional habitat. The narrative of *Dusk’s Gait* evolves by revealing and hiding various sonic species, and the sonic conversation between the creatures. The contradiction between the anthropomorphism of sonic material and the criticism of the effects of Anthropocene on the natural habitat illustrates existing dilemmas of today’s society.

Similar to *Dusk’s Gait*, *Bye, Bye, See You Tomorrow* by Dariusz Mazurowski creates an artificial environment of sonic creatures. It is possible to approach the sonic gestures in this piece as sonic species like in the composition of Barrett. In Mazurowski’s piece, the communication between artificial sonic creatures occurs in a sophisticated manner, where
bidirectional, complex action-response events derive the interactivity. Towards the end, the complexity that is previously sustained by the rich communication behaviors between sonic creatures slows down; and the coordination between sonic creatures resulted in a blended sonic space.

The twelfth concert at ICMC/NYCEMF 2019 revealed four of the trends in the area: artistic research through the sonic material, the anthropomorphism of sound, narratives in fictional sonic worlds, and reactivity and interactivity of sonic gestures from the perspective of agent behaviors. These trends highlighted ongoing global discourse in computer music.

**Concert No. 14**  
**Thursday, June 20, 2019, 1.30 p.m.**  
**Hebrew Union College**  
**Reviewed by Jonathan Pitkin**

The first concert on Thursday took place at Hebrew Union College. It consisted of a mixture of fixed media and electroacoustic works, several of which had an important visual element.

The first piece to be heard (and seen) was Juan Parra Cancino’s *TNchain_JI*JP_NY19. This featured trumpeter Jonathan Impett, whose contribution was relayed over a live video link from the Orpheus Institute in Ghent, Belgium. Impett’s playing was subjected to live electronic manipulation by the composer, who had taken to the stage to operate various hardware controllers. This set-up made possible some interesting effects which could not have been achieved had the performer been present in the same room: the (delayed) live trumpet sound was often pushed to the very edge of audibility, and the viewer was invited to match up the sight of Impett playing material they were yet to hear with the sound of extensively transformed versions of other phrases he had already played. The whole piece had a restless energy to it, never staying still for long.

A change of tone followed with Rodney Waschka’s *A Portrait of Larry Austin*, a tribute and, since its completion predated Austin’s death last December, an unintended eulogy to a pioneering figure in ICMA history and computer music more generally.
This fixed media work had at its center a recitation of dates, names and achievements which mapped out Austin’s life and career, lending it a ritual quality. The recitation faded in and out of intelligibility, as a result of various processing techniques. Meanwhile, synthesized elements, including some which alluded to Austin’s own works, evolved slowly or else pushed into the foreground in more active, articulated clusters.

Erich Bargainier’s *Light Shards* brought a live performer to the stage for the first time, namely Esther Lamneck, whose tárogató improvisations were processed by the composer in real time. Lamneck’s playing was quite contained to begin with, with distinct pitches only occasionally allowed to emerge from a blur of key clicks and restless fingerwork, before building gradually to an extrovert finale. The carrying power and rich, saxophone-like sonority of the tárogató provided a foundation from which an increasingly imposing soundscape was created, making some striking use of delays and spatialization.

Tate Carson’s *And the water receded* was a “sonification” of Hurricane Katrina for percussionist Patti Cudd and electronics, performed against the visual backdrop of an accelerated mapping of the storm’s progress. The effect was tense and ominous, with pitched material played by Cudd being sustained by gritty, uneven-sounding swells and faint pulsations in the electronics; these themselves were then blended with further live acoustic events, such as glassy timbres from a bowed vibraphone. Rapid volleys of vibraphone and crotales strikes sounded almost as if they were being blown about chaotically in the wind. The texture suddenly dissipated into drier, more isolated sounds as the storm died out.

According to its program note, the audio material of Dave O. Mahony’s *Radio Click Suite* was triggered, projected and modulated by brainwave signals communicated directly by the composer himself via an Interaxon interface to a Eurorack modular synthesizer. Since neither the composer nor his equipment were present on this occasion, we listened to what was presumably a recording of one particular ‘performance’ (each, of course, being unique),
characterized by its busyness and restless variety. The sonic character of the Eurorack modules, unapologetically machine-like and perhaps more familiar from various pop genres than from art music, contrasted interestingly with the rest of the program.

Peter Hulen’s Wobbly was notable for the performative, visually arresting way in which the composer could be seen to control the electronic sound with an iPad. Hulen used this as a wireless controller linked to his laptop: the effect of changes in the device’s height, tilt and rotation were immediately audible, for example in how they affected the spatial placement of the sound. This also created an intriguing juxtaposition between the sight of a ubiquitous piece of modern consumer digital technology and a sound-world which could perhaps be described as ‘retro’, due to its reliance on familiar-sounding waveforms. Synthesized pitches assembled themselves into fast-moving, angular melodies which meandered relentlessly and unpredictably in the background throughout.

Esther Lamneck returned to the stage for Jean Pichardo’s Azul de mañana, an intensely autobiographical piece which drew upon the composer’s state of mind following the death of his mother. Here, the sound of Lamneck’s tárogató – again, her part appeared to be at least partly improvised – was combined with both a tape element and a film, on which were brought together enigmatic images of woods, fire, and intertwined snake and human forms. Pichardo constructed a dark, immersive soundscape of slow-building sustains, against which Lamneck’s playing encompassed a wide variety of characters and effects, ranging from flurries of tremolos to keening, full-throated melodic gestures.

Michael Pounds’s fixed-media piece Steelwork was an autobiographical statement of a very different kind. Taking as its source material recordings of a lap steel guitar which had belonged to the composer’s father, it unfolded into a kind of whimsical reminiscence of the instrument being played to him as a very young child. The piece was characterized by a balance between transparency and sophistication in
its construction, and by near-constant bends and slides between pitches: these were playfully combined into textures of often exceptional delicacy, their varied inflections coming to sound almost like baby talk. What sounded like echoes of particular pieces of music which Pounds might have remembered hearing from the instrument also appeared to surface intermittently.

The concert concluded with Chris Corrigan’s *Is Fada an Lá*, a piece for soprano saxophone (Enzo Filippetti), harp (Seunghee Han) and electronics based around a traditional Irish lament. The lament’s melody was presented simply at the outset, and its words were subsequently heard in a recitation which formed the core of the piece’s electronic component. Corrigan's desire to explore the importance of ornamentation in traditional performances of these kinds of songs was reflected in the prominence of trills and tremolos in the saxophone part; these, as well as ostinato patterns and pedal effects from the harp, were expanded by the electronics to atmospheric effect.

**Concert No. 16**  
**Thursday, June 20, 2019, 8.00 p.m.**  
**Sheen Center, Loreto Theater**  
*Reviewed by Jonathan Pitkin*

On Thursday evening, ICMC delegates returned to the Loreto Theater to hear a substantial program which mainly comprised works for solo instrumentalists and electronics.

The concert began with Anna Rubin’s *A Small Impromptu God of the Partial*, a piece which required the performer, cellist Madeleine Shapiro, to alternate between two bows: a traditional one, and a second with beads attached, so as to allow noisier material to be introduced alongside the more conventional playing. The electronics part included whispering, laughter and streams of indistinguishable vocal syllables as well as material derived from the cello part; the composer's intention was for this to subtly inflect the soloist’s performance. This led to a noticeable variety in the way the two parts interacted: in some passages the electronics sustained and modulated selected cello pitches; in others the two seemed to follow their own courses, like parallel streams. The ‘partials’ of the
title were most clearly audible in the filter sweep-like effects at the very end.

David Taddie’s *Wayward Country* combined three layers of saxophone sound: the live performance of Justin Massey on alto, the composer’s real-time processing of this material, and combinations of pre-recorded samples taken from both the alto and bass members of this instrumental family. Massey’s part explored a wide variety of registers and effects, ranging from long, single notes, through more rhapsodic passages, to a final, virtuosic frenzy. The electronic accompaniments, which put their source material through extensive transformations, faded in almost imperceptibly, appearing glassily impassive at times but also contributing to stretches of sharper interplay with the soloist.

Christopher Hopkins described his piece *Touché* as a duo-concertante in which two clarinet soloists engage in musical contests, both between themselves, and against a computer-generated ensemble of synthetic counterparts. The two live performers, Esther Lamneck and Mariane Gythfeldt, were combined in some time-honored ways, moving in parallel, or interlocking in imitative textures which highlighted the spiky modality and constantly shifting meters and accents of Hopkins’ material. Against this, the electronic part provided a gently pulsing, continuous rhythmic backing for much of the piece, but on several occasions ventured more assertively into registral territory above and below the live acoustic sound, becoming clipped and percussive.

Natsuki Kawakami’s *Style of Bird* also called for two live performers: a flutist (Sungjun Lee) and pianist (Jung-Ah An), whose parts were both based on the song of the Narcissus Flycatcher. Like Hopkins’s piece, and in contrast to the improvisatory quality that characterized most of the other works on the program, it had what appeared to be a carefully pre-constructed instrumental duo at its center. Kawakami’s piano writing alternated between percussive sonorities and more continuous, moto perpetuo textures. Against this, the flute part was more gestural, leaving rests in which each statement was left to reverberate. The live electronics shadowed these contributions closely, thickening the texture with delays, accumulations of echoes and pitch-shifted parallel
melodic lines, as well as some more extended transformations that pushed the music almost towards machine sound.

Mara Helmuth’s *Sound Dunes* was described by its composer as a “collaborative composition” between herself and the performer, in this case Esther Lamneck, who had returned to the stage as a tárrogató soloist. The piece certainly took full advantage of the characteristics of Lamneck’s playing that had become particularly prominent over the course of the day’s performances: rapid fingerwork, suppressed energy, pronounced vibrato and above all a rich, full-bodied tone color. The electronic transformations of the tárrogató sound, as well as responding directly to these qualities, made a feature of sustained, breathy swells, which subsequently became more insistent. Like Taddie’s piece, it all concluded in a blaze of virtuosity.

The title of Orlando Garcia’s *separacion* alluded to the separation between a live saxophonist, Enzo Filippetti on soprano, and an accompanying tape part - which, like that of Taddie’s piece, was based on pre-recorded saxophone samples. As it turned out, the degree of separation between these two elements was extremely subtle: they were blended into near-indistinguishability for much of the piece. Making extensive use of circular breathing, Garcia created a completely continuous texture, almost accordion-like, in which clusters of sustained tones seemed to shimmer as a result of subtle detunings between live and recorded pitches.

Manuella R. Blackburn’s *Snap Happy* was the only fixed media composition on the program. It was based entirely on recordings of cameras, both vintage models and more modern digital equivalents, including cellphones – some of the sounds of which, as the composer pointed out, are themselves recordings of superseded mechanisms. Blackburn wove her source material into an evocative, playful-sounding collage, making use of loops to sustain distinct pitches when these became audible, and to bring out characterful rhythmic patterns. The transitions between each of the three short movements saw a thinning-out of the texture before the music (and, in the mind’s eye, the machines that were making it) sprang back into life.
Andrew May’s Ada was the only piece on the program to make explicit use of pre-existing music - namely, a movement from Bach’s first solo violin sonata. This was used as a kind of central skeleton for both Maja Cerar’s “guided improvisation” and a computer part which tracked and responded to her, making use of samples taken not only from the violin but also the mandolin, with violin pizzicati acting as a bridge between the two. These sonorities were often combined into unpredictably-timed bursts of attacks, contrasting with the sense of distance (acoustic as well as historical) created by the treatment of the Baroque material.

Gayle Young’s Burrage Lake also featured a live improvisation – the creative importance of which was acknowledged here by its exponent, Madeleine Shapiro, being given joint billing as a co-composer. Like Blackburn’s, the piece also made use of real-world sounds that we were invited to hear in a more musical way than we might normally – specifically, waves breaking against rocks. These watery effects took on a striking closeness as a result of their presentation in full-spectrum, immersive continuums; against these the cello played rhapsodically, but also made considerable use of body effects which themselves came to sound almost like a field recording.

The instrumental sonorities used in Zuriñe F. Gerenabarrena’s Barne also leant towards the qualities of electronic sound, even when presented without transformations: if we had not been able to see Patti Cudd moving swiftly around a varied array of percussion instruments, we might have assumed at times that we were already listening to synthesized material. When the electronics were used, they subtly prolonged and recombined the acoustically-produced gestures and effects, which also included some vocalizations.

The performers all coped admirably with technical delays, false starts and last minute changes to the program, bringing together an ambitious and varied collection of pieces which were presented with great commitment and considerable theatricality.
Concert No. 19  
Friday, June 21, 2019, 8:00 p.m.  
Sheen Center, Loreto Theater  
Reviewed by Peter Hulen

The first performance on this concert was *Âme liè* by Alessio Gabriele, for soprano, alto saxophone, and live processing. Soprano Eleonora Claps and saxophonist Enzo Filippetti performed onstage as Alessio Gabriele oversaw the processing of signals from the house mixing console. The piece was added to the concert as a reschedule from the previous evening, due to technical difficulties. Uninterrupted flow and resonance were the themes of this piece. Claps sang with resonant closed and open phonation, while Filippetti played squeaks, multiphonics, long quiet tones, and pitch bends, along with a few brief melodic figures or tremolos. The electronics were relatively minimal, consisting of echo and other effects. The three parts intertwined and interacted within a long, barely evolving texture augmented by an effects feedback system referred to as *WindBack*. The overall effect was one of very slow, quiet interaction among the three elements.

The second piece, listed first on the program, was *Alchemist* by Tabor Szirovicza, for cello and fixed media soundtrack. Madeleine Shapiro was the cellist. A technician joined Shapiro onstage, following a printed score and cueing sections of the soundtrack from a laptop. Contemporary techniques such as harmonic trills, sul ponticello motivic gestures and melodic fragments in the cello part were carefully timed with swooping reverse phrase endings in the electronic part. In addition to artificial sounds and effects, the electronics included increasing samples of cello gestures and pizzicatos that coordinated with and were reflexive of materials in the live cello part. The dialog between these elements resulted in a thoughtful, brooding texture.

Following was a fixed media piece in eight studio-spatialized channels entitled *If Bees are few*, composed by Kari Vakeva. Program notes describe an initial “cloud of buzzing noises”; however, these materials contained a fair amount of microtonally related, pitch-suggestive content. Written with C++ and synthesis software designed by the composer, it was a
complex, slow-moving collage of temporally long sounds, with short, periodic buzzing sounds heard at times. The overall texture built in intensity then subsided at formally significant junctures. Materials rising in pitch were evocative of a Shepard tone. For such temporally elongated sounds, the complex, interlaced texture was consistently interesting; and, for having no sudden or especially distinct gestures, the dynamics, formal structure and overall dramaturgy of the piece was excellent.

Another piece for cello and electronics followed, again featuring Madeleine Shapiro. It was *falling out of time* by Iddo Aharony, inspired by David Grossman’s novel of the same name. Rather than a soundtrack, this piece included live processing, along with samples of psalm cantillation in Hebrew. The piece began with long, high melodic figures with harmonics and glissandi in the cello, accompanied by processed sounds. The cello part ultimately exploited the greater register of the instrument. The cantillation faded in after the introduction by cello and effects, standing alone as these initial elements faded out. The cello again joined the texture, punctuating and separating passages of singing with subtle harmonics and shimmering processing. Brief, slow, high cello gestures and digital processing dovetailed and combined with cantillation samples in a convincingly integral way. The effect was humane and moving. The cello writing was in character with the sampled voice, and complimented it well. The processed cello sounds pulled the other two parts together into a texture of continuity wherein each element was allowed at times to speak alone. The piece culminated with a reflective solo passage for the cello.

The program alternated again back to fixed media with an eight-channel, studio spatialized piece by Clemens von Reusner, entitled *Anamorphosis*. It began with sweeping, juddering gestural materials dramatically separated by silence, followed with a textural collage of continuous materials made distinct by separations in register. According to the notes, both were based on a brief sample of a wooden door. They were combined into a carefully crafted overall structure of varied distinct sound objects interacting to form a texture
which maintained continuity without having to rely on unceasingly continuous sound. Sonic objects were made discernible through register, dynamics, and contrasting character, while being woven into a continuous whole.

There followed yet another piece for cello entitled *Inharmonic Fantasy No. 9*. This one included a fixed-media component for the electronics. It was composed by NYCEMF Director Hubert Howe. Andrew Borkowski was the cellist. As the title suggests, the spectral content of pitched sounds in the electronic part was manipulated in such a way that the ratios between their components were rendered inharmonic. Long, shimmering bell-like sounds in rising accumulation were paired with a long-breathed cello melody in the mid-low register that was both in character with and complementary to the electronics. Swells in the combined synthesized textures and cello passages were built, relieved, and varied according to phrase- or section-like structures, creating a pleasingly human-scale formal structure. The fact that the piece was coordinated with a click track was never evident in its beautiful ebb and flow.

After the Intermission, a short performance not listed on the program was given by Brad Garton, Director of the Computer Music Center at Columbia University. He also gave a brief, informative spoken introduction in lieu of program notes. Over time, on sabbaticals and during creative periods, he had created three different reader apps containing his own reflective writing, sonic media he composed, and still graphics. These were designed for public readings, accompanied by the sonic elements and visuals. The first app contains reflections on music (*My Music Book*), the second recounts dreams (*The Book of Dreams*), and the third relates and reflects on memories, and memory itself (*Memory Book*). Garton performed three brief excerpts, one from the dreams book and two from the memory book. The first was a rather humorous passage relating a dream that included composer Paul Lansky. If understood correctly, the sonic background featured physical modeling of a clarinet. The second brief excerpt was from a reflection on the acceptance of mortality after a difficult diagnosis. The long, quiet,
flowing electronics beautifully complimented the live reading. The third reflected on experiences that invoke memories of earlier experiences, and the flowing together of the two. This was in context of a travel experience in Japan. The sonic background was based on samples of his grandfather’s piano. Garton was careful to keep the explanation and excerpt performances brief, leaving this reviewer wanting to hear more.

There followed the first video piece on the program. It was *Picollock’s Dreams: Liquified Sounds* by Konstantinos Karathanasis. As the title suggests, the composer was inspired by the dripped painting techniques of Jackson Pollock. Sonic materials were based on samples captured around the campus where Karathanasis is a Professor of Composition and Music Technology. These were subjected to phase vocoding, granular techniques, filtering, envelope shaping, and pitch shifting using Max/MSP, before being sequenced in Pro Tools. Visuals were animated with particle systems using volumetric renders, filters, and effects, all composited in layers. The piece began with a coruscating, teeming, black-and-white visual texture integrated with a complex, droned sonic texture of interwoven inharmonic and pitch-indistinct sounds. There followed the introduction of deep red, green, purple, and predominantly blue colors into a dark visual texture of increased activity and internal motion. The sonic texture dramatically reflected the visual as it began to include flashes of yellow, and then faded — an animated and musically scored Pollock.

Audio texture continued through the credits with indistinct bell and speech-like sounds for a continuous, organic whole.

A third fixed-media piece followed: *Moving On* by Joel Gressel. All sounds were digitally synthesized using an updated version of the MUSC 4BF program, originally developed at Princeton in 1967 as a derivative of the MUSC IV program/language developed at Bell Labs. The sonic texture was artfully composed according to various 12-tone frameworks and shifting rhythmic procedures. The outcome featured a collage of softly metallic, brass-like or twanging sounds in their envelopes and spectral content, sometimes
against a high, string-like background. The texture was formally apportioned with collage-like passages where one or the other of the various timbres predominated. The overall result was that of a flowing and rather dreamy texture.

The second video piece on the concert was *Maze* by veteran and frequent contributor Sylvia Pengilly. As suggested by the title, its palindromic form was based on the composer’s experiences going through a maze. Visuals and music synthesized a colorfully glowing and continuously rotating layered meshwork of bar shapes morphing back and forth from color to monochrome, at times forming laterally symmetrical, moving Rorschach patterns, with a sophisticated synthetic soundtrack to match. Following the program notes, the monochrome sections represent “wrong turns” in the maze, culminating in a retrograde return to the start of the piece.

There followed yet another piece for cello with electronics, this time also with piano: *Memories* by Nicolas Chuaqui. Madeleine Shapiro again performed on the cello, with Marija Ilić on the piano. And again, a technician was present onstage to cue electronic parts. The piece was divided into four short movements inspired by salient moments and anonymous fellow travelers on a trip to Rome. The first movement, entitled “The Sant' Angelo bridge, sunset, looking east to west,” began with brooding, low tones in the piano and then cello, with rumbling, droning electronics, along with a change of register to slow, somber harmonics in the cello. The second movement, entitled “A statue in the Courtyard of the Vestal Virgins showing the decay of time,” featured a similar texture, but with dramatic pauses, harmonics in the cello, and repeated midrange notes and chords in the piano, as well as samples of breathing or panting in reference to other people present on the composer’s sojourn. The movement ended with accumulating high metallic wind-chime-like sounds in the electronics. The third movement, entitled “Three memorial stones on Via della Reginella,” was evocatively minimal with quietly repeating and slowly developing melodic motifs in the piano, visited briefly by a crescendo of electronic droning, and tones from the cello. The final
movement, “Saint Peter’s Square, noon; the immensity of space,” featured toccata-like figures in the cello, into which a growing electronic simultaneity was introduced as a background, followed by evocative restatements of an earlier piano motif.

The final work on the concert was a third video piece: *Cylindrical Dimensions* by Michael Rhoades. Audio was created using Csound, and video using Maya, the whole being presented as “a visual music composition,” as “an exploration of the effects of reflective curvatures in light.” Three-dimensional representations of rotating aquamarine string-like figures against a monochrome background gave way to a monochrome, rotating survey of the overall visual texture. Lavender, then blue colors were introduced, transitioning to a shimmering blue, then green. As a formal component, the piece became more sonically active and visually flashing as it moved through a series of sound events produced by means of generative algorithms created by the composer. The piece culminated with a rapid, palindromic return through its scenic types.

*Installation Reviews*

Haein Kang: *Illusion: you can hear, but you cannot see* (2018)
NYU Blackbox Theater, June 19, 2019
Reviewed by Teresa Marie Connors

Haein Kang's performance-based installation, *Illusion: you can hear, but you cannot see*, combinations high-tech equipment + code with video projection and eight customized percussion instruments. Each instrument is equipped with an up and down mechanical moving arm device, elastic string attached to the arm, and a fishing line weight at the end of the string. Each weight hovers above a material object made from either metal, glass or wood. When the mechanical arm is triggered to move, each weight strikes their respective object causing it to sound.

What triggers the movement of the mechanical elements are alpha brain waves. For the ICMC2019 performance-based installation, Kang sat in the middle of the semi-circularly placed instruments wearing an EEG headset. A customized computer program transcoded the data from her
headset, which then trigger each percussion module. The activation was specific to Kang's eyes being closed, which activates the 8 to 13 Hz electrical signal that occurs in the visual cortex. Directly behind Kang was a video projection which was also triggered by the EEG headset, and comprised of either a close-up photo of an eye opened or closed.

During Kang's performance at the NYU Blackbox Theater, it took time for the equipment to work correctly. But, as any creative practitioner working with code + equipment can attest, it's challenging to get everything to work. Audience members could see Kang sitting in the center of the room wearing the EEG headset and surrounded by the customized percussion instruments, but nothing happened. Once Kang rebooted the system, and all was running properly, the combination of brain-computer interface, customized percussion instruments and video project were fascinating and an elegant use of the various materials and processes.

Examples of Illusion: you can hear, but you cannot see are available on Kang's web page:

www.haeinkang.org/gallery-4culture

Daniel B. Formo: The Orchestra of Speech (2018)
NYU Library, June 17–22, 2019
Reviewed by Teresa Marie Connors

Daniel Formo's The Orchestra of Speech is a well-constructed sound + instrument installation. Developed during his PhD research at the Norwegian University of Science and Technology in Trondheim, Formo's project explores the relationship between everyday speech and musical improvisation and is concerned with human speech gestures as performative material.

Visitors to the ICMC 2019 rendition of the work found percussion and string instruments situated and hung throughout a medium-sized room. Mounted on each instrument is a transducer that receives speech analysis from a custom-made software created in Max. The software extracts in real-time musical content of pre-recorded and live speech. The live input occurs via an old rotary telephone located in the center of the room. Visitors to the installation are encouraged to interact with the
phone when it rings, which are, in turn, recorded, analyzed and routed to the acoustic instruments via the respective transducers.

For the speech analysis, Formo focuses on the prosodic qualities of speech such as strong accents, intonation and rhythm. Routing the resulting abstractions to the transducer-instruments produces a delicate musical world with the use of drum skin, cymbal metal, guitar and zither. Moving around the room to individual instruments, it becomes apparent the musical material is produced from speech gestures and, with the addition of the live telephone input, interaction with The Orchestra of Speech can become an improvisatory process. Formo’s complete project is located at http://orchestraofspeech.com

Alexis S Crawshaw: Kroumatograph No. 4 (2019)
Fridman Gallery, June 17–23, 2019
Reviewed by Teresa Marie Connors

Alexis S Crawshaw’s Kroumatograph No. 4 explores the use of low-frequency static additive tone (~30–80 Hz) to construct this site-specific composition-installation. Visitors to the gallery space are invited to follow a path score mapped out on the floor, which also includes designated stopping points. While walking the score, subtle frequency-beating polyrhythmic shifts occur as you move to different locations in the room. Crawshaw notes that using theses frequencies between ~30–80 Hz adds a haptic element to the work, as they correspond to the general frequency range of the chest resonance in the human body.

Running between ICMC shows, it took time to slow down to experience the sonic world Kroumatograph No. 4 inhabits. After two score walks, a meditative state emerged which motivated a third and subsequent free improvisatory stroll around the room. Being embedded in this sonic world is captivating as you can feel the vibrations in the body.

Crawshaw’s broader research is concerned with the impact of infrasounds in architectural structures and the potential effects on those that reside within. Kroumatograph No. 4 brings to the foreground this sonic landscape in a well thought out
composition-installation.

Mara Helmuth, Yunze Mu, Owen Hopper, Zhixin Xu, Shawn Milloway: Five Worlds
NYU Library, June 17, 2019, 3 p.m.
Reviewed by Wing-Lam Sin

Five Worlds is an immersive virtual reality game-like adventure. After wearing the HTC Vive VR headset, audience will start their journey of Five Worlds. Starting point is a peaceful universe, which can be seen via the headset. The audience can use the handheld controller to move and touch different spheres, each opening up a completely different environment – another world to explore. The worlds in Five Worlds are completely different concerning visual and audio components, but also regarding the interactive features that enable the audience to experience the diverse environments within a single installation.

The five worlds include “Tranquilarea”, a peaceful universe with a golden Menger Sponge by Mara Helmuth; “Wood Sounds World”, a relaxing natural habitat by Owen Hopper; “Idiophone”, a world with an interactive musical instrument by Zhixin Xu; “Visualizer Cave”, a cave with different sonic visualizers by Shawn Milloway; and “Sky World”, a world with a beautiful sunrise by Yunze Mu.

There are a lot of interactive components in each world which encourage the player to explore and discover different hidden sounds that are combined with interesting visuals. For example, when getting close to ponds in “Wood Sounds World”, a calm music of running water and ripples will start playing. When getting close to a firefly-like sonic visualizer in “Visualizer Cave”, a bunch of “fireflies” fly away with a dreamy music. Players can also control through verbal commands, e.g. to fly or trigger an action. The sound effects and background music are synchronizing in time with the visual effects and the player’s actions, which create a unique and impressive experience.
ICMA 2019 Awards

ICMA Music Awards
Congratulations to the ICMA Music Awards laureates:

TERESA M CONNORS
Americas Award for *Currents*, an outstanding, evocative audiovisual installation.

DEBORAH KIM
Asia-Oceania Award for *Rhythms of Rain*, an energetic and eruptive composition exploring the Janggu with electronics.

MARTA GENTILUCCI
Europe Award for *Auf die Lider*, an elaborate, expressive composition for voice, instrument, and electronics.

JACOB SANDRIDGE
Student Award for *Each step*, an elegantly designed spatial and interactive sound installation.

The Award's Music Committee consisted of Marc Battier, Se-Lien Chuang, PerMagnus Lindborg (Chair), Chryssie Nanou, Felipe Otondo, Elsa Jaeyoung Park, and Andreas Weixler.

ICMA Paper Awards
Congratulations to the ICMA Paper Awards laureates: STEFAN RIEDEL, FRANZ ZOTTER and ROBERT HÖLDRICH for their paper "Design and Control of Mixed-Order Spherical Loudspeaker Arrays".

The Award's Paper Committee consisted of Marta Gentilucci, Kerry Hagan, Christopher Haworth (chair), Lauren Hayes.

ICMC2019 Audience Awards

The Audience Award for Best Music Presentation went to LARA MORCIANO for her piece *Liphyra* for piano and electronics.

The Audience Award for Best Paper Presentation went to JOSÉ MIGUEL FERNANDEZ, JEAN-LOUIS GIAVITTO and PIERRE DONAT-BOUILLUD for their paper "AntesCollider: control and signal processing in the same score".
The Music Award winners Teresa Connors (up left), Deborah Kim (down), and Jacob Sandrige with PerMagnus Lindborg (Chair) at the Award Ceremony.