



3by3by3 has been awarded a 2016 New Works Residency at Harvestworks in New York City to expand the interactive elements

3by3by3

An interactive bio-digital, “son et lumière” collaborative event
by Rhys Chatham, GH Hovagimyan and Raphaele Shirley

Synchronicities and Commonalities

The three artists work in different disciplines. Chatham is an accomplished musician/composer, Hovagimyan is a new media artist/performer and Shirley is a sculptor working with light. The artists have or use technology in their work in various ways. Mr. Chatham is known for his work with electric guitars and minimalist music, Hovagimyan works in both physical and virtual space, and Shirley often uses physical set-ups to create fleeting ephemeral events of light and structure. They have decided to work together and to be inspired by each others’ work. The work process itself is performative. Each artist finds a common thread to weave within this fabric. That being said, Mr. Chatham’s music is the anchor or starting point. All three artists perform their work, although the term performance perhaps is not a sufficiently succinct term. Structural permutation or procedural evolution may be a more appropriate description for the works of each. The live elements of sound, movement, light, projection, water, mist, and smoke in a physical space create a performative kinaesthetic in which the work is perceived by the audience and the performers,.

The overall question is how does one create a live multimedia event that does not duplicate or extend the proscenium stage with a fixed point of view metaphor. Shirley does this by creating an architectonic definition of the place of activity. This is created by both the physical shapes, (giant concave mirrors, swirling LED light circles) and non-physical shapes (projections, smoke, light beams, etc.). The dynamic tension is between the notion of stage set or, “staged” set and one of performed mini-events. The nuance is in both the implied meaning of the materials: smoke and mist adding elusive amorphousness, while a projection or a light implies a crisp clarity. These are harmonics within the lexicon of imagery that Shirley is developing specifically for this collaboration. The overlapping concerns of Mr. Chatham and Ms. Shirley can be seen as a common access to the collective imagery and sensations that are triggered by sound and music as well as the context of Shirley’s spatial events. Both artists deal with creating spaces and intervals.

Mr. Chatham's music often works with just intonation, the original, pure mathematical intervals discovered by the pre-Socratic philosopher Pythagoras when dividing the length of a lyre's strings in perfect ratios to create pure intervals. Chatham's music focuses on the natural overtones or the harmonic series, at times using it as a primary musical vocabulary, effectively focusing the ear on an extension of aural space beyond the confines of the fundamental frequencies of any given chord. Melodies are articulated through the use of basic digital/delay pedals that are set to 8, 9, and 10-second feedback delays. A melody played into one of the units is precisely repeated on units 2 and 3, thus initiating a phasing phenomenon, resulting in a seemingly non-repeating and never-ending continuous melodic pattern and harmonic progression.

Mr. Hovagimyan's approach to this collaboration starts with his background in video and performance art and his subsequent utilization of digital tools and computer programming to create a physical/virtual performance space. Using a hacked Kinect camera and an open-source programming environment, Hovagimyan uses his body movements as a controller for Ms. Shirley's light events. Real space is mapped to virtual space and – where they overlap – they can be seen in the ghostly projection of an infrared image of his body as it intersects virtual cubes. The virtual cubes function as switches and also define dance-like movement. Hovagimyan responds to Chatham's music while activating Shirley's sculpture-events. His body and its 3D projection are also part of Shirley's iconographic mixture of images. She likens his poses to classical Etruscan sculpture.

Structure and Intention

One might ask why, in general, do artists working in differing media wish to collaborate, and what might they produce. After all, each artist has an individual career and internal Iconography that stands on its own. In this case, it's a position of post- structuralist disassembly and synthesis coupled with the inevitable kinesthetics of live performance. There is also a learning process for each artist. They acquire an intimate knowledge of each other's work by engaging in the collaborative creative process. This informs and inspires each person's individual thought patterns. Each artist is working within the structure of their particular métier, but the elements have been separated and are examined on their own terms. Chatham, for example, might pluck his electric guitar strings in a pizzicato, or play a sustained chord, or play a series of staccato notes on his trumpet through his looping devices. The loops thus create a perceptual melody within the mind of each individual listener depending on their physical position within the performance space and its varying air pressure, which affects the perceived harmonics individually in the audition of the public. There are also timbral issues: questions of tone color, dissonance and consonance that are considered within his musical structures. These are introduced and examined, each in its own way. This is all within the language of music. With Shirley there is a similar attention to the spatial components and light events as well as a layer of visual iconography. These create a narrative, albeit not in a traditional sense, but rather a narrative that is an investigation of the various components in the visual composition. Hovagimyan for his part relates his movements to both Chatham's music and Shirley's spatial events. He is developing a structure within the framework of pure movement that is most suitable for experimental music and digital interfaces in the 21st Century.

Meaning and Synthesis

Obviously, artists communicate sensibilities that are more felt on the level of emotion and feeling than can be described in rational terms. The three artists have structural commonalities, contrasted with highly unique positions within their respective fields. What is important for all is to expand the idea of art, music, or performance beyond its commonplace representation. In this sense a collaborative synthesis can produce new results. One can resort to poetic metaphor in this case and say that Chatham's music breaks down musical preconceptions with its physical presence while treating the mind to crisp musical form. Shirley creates a torrent of shapes, images and immaterial sculptural events that is like taking a stroll through Western civilization, and Hovagimyan places the human body and spirit in the middle of this amazing matrix.

Sample Visual Movements/Scenes:

Virtual walls of light

Rooms are drawn out, walls built of laser beams or beams from spot lights, dividing the space. All other parts of the performance space are shrouded in darkness rendering these “light walls” that much more mysterious and profound. The music audible seem to emanate from the depths of darkness, with only these thin lines revealing elements of the visible world.

Light pillars

Darkened room, lasers or spot lights are set-up as light columns appearing magically from the ceiling in the center of the room, pointing downwards towards the ground, this group of four to six light columns appear rhythmically, slowly or quickly.

Stairs made of light beams, splitting space sideways at waist height

A stream of laser or spot light beams cross the space sideways at ground level, the lights draw out in space the formation of a staircase, crossing the full span of the room.

Mist exuding from the ground

A low sea of mist and fog created by a mister that are triggered at the ground level and generate a low flying cloud, as if the audience were standing on a mountain, seeing the world from above a hissing sound of the misting devices. A low-lit event in an otherwise darkened room.

Floor and ceiling as a circular plane of light

Two 12 foot neon white circles are suddenly triggered creating a very bright aura of light ceiling and floor. This bright light blows out any previous light arrangement and creates a sense of urgency and imminence. When these lights are shut off they leave a slight “image burn” in the retina, which adds to the hypnotic flow of music and sound that merge visually and audibly.

Suspended Cloud/Smoke machine

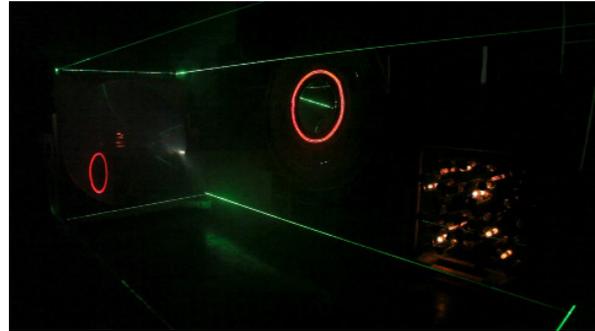
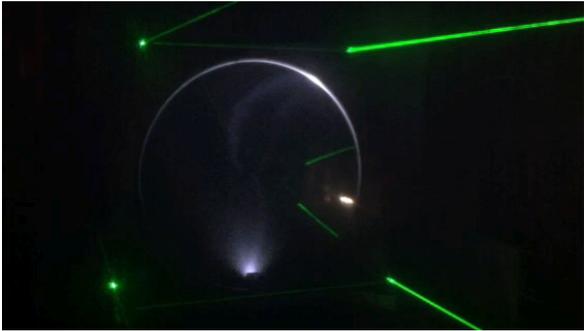
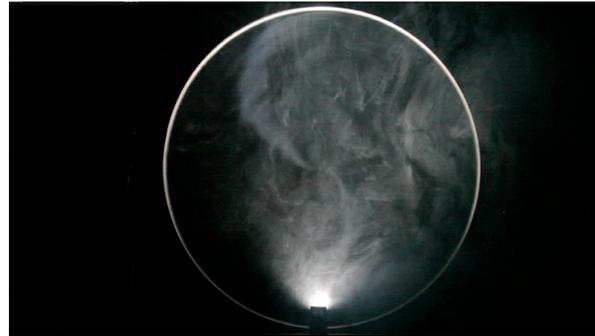
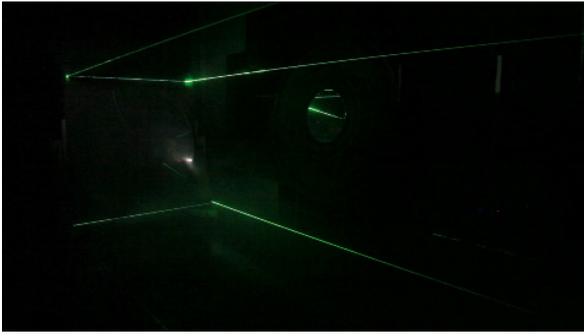
Emitting a sudden cloud in the middle of the room from above and spot lit.

Stroboscope

Two sets of stroboscopic lights are set at each opposite corner of the room lighting up preinstalled mirrors. The mirrors appear as floating orbs, likening to displaced moons.

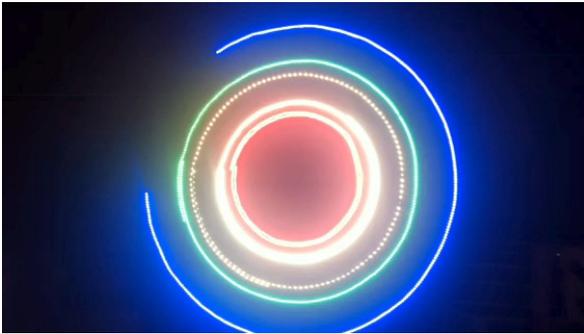
General Theatrical lights

Variable diffused lighting throughout the exhibition room, serving as an alternate mood to the prior focused set-ups, offering a different spatial experience, contrasting a sense of intimacy and mystery with a larger, more expansive space. Regular edison lamps can also be used here as an alternate modality to the prior set-ups.



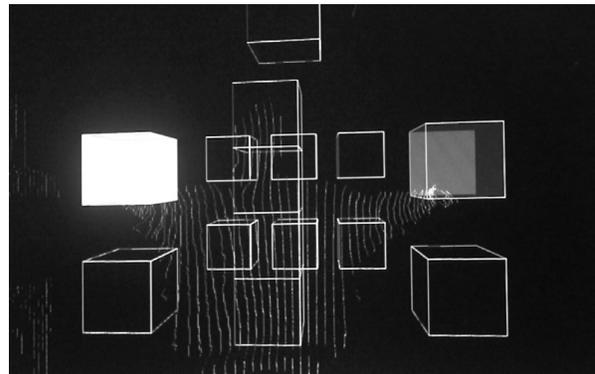
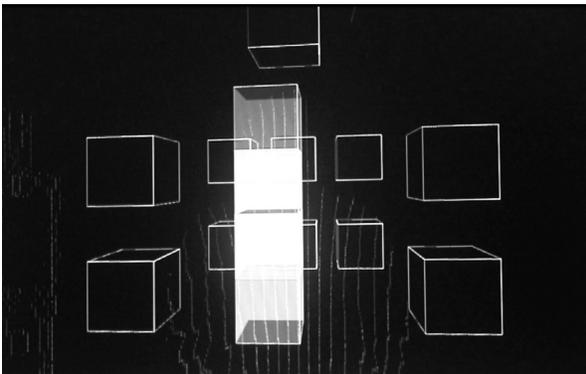
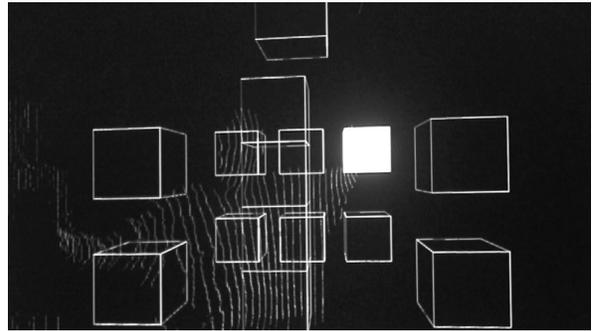
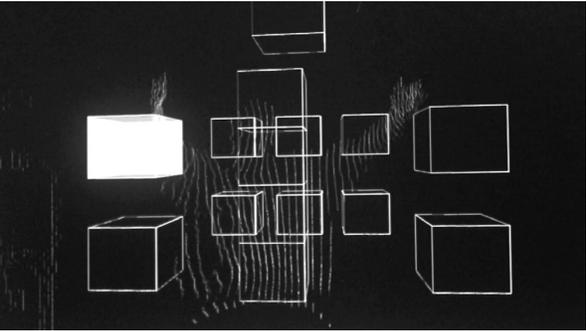
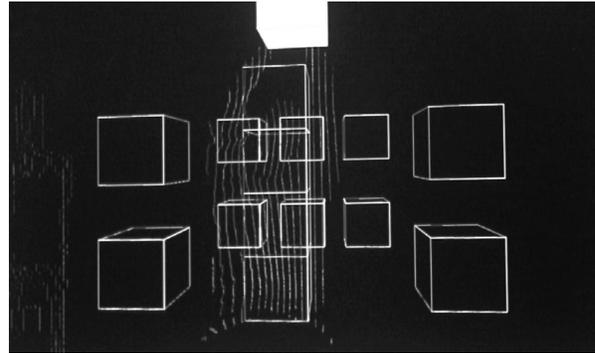
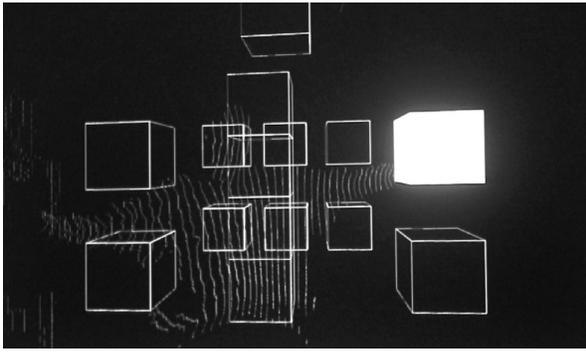
Stills/excerpts of June 10, 2013 first rehearsal of 3by3by3 with Rhys Chatham, GH Hovagimyan and Raphael Shirley to a select audience of 7 persons at 70 Commercial Str. Brooklyn, New York.

The installation/rehearsal begins in darkness with only a room-size laser rectangle visible. Rhys and GH are placed inside the rectangle of light. As the music progresses the stroboscope in the mirrors are triggered and then slowly the diverse light sculptures, under GH's command, are lit of or extinguished. The alternating contrast between the darkness, and low-light laser installation and the very bright LED lights generates temporary "image burns" in the retina, so a visual exho follows the sound echos generating perpetual synchronicity between sound and image, and between all the senses.



Stills/excerpts of June 10, 2013 first rehearsal of 3by3by3 continued:

As the rehearsal progresses Rhys changes instruments starting with the guitar, changing to the trumpet and finishing with the flute. While Rhys is playing, GH is triggering, by means of his connect interface, Raphaelé's light sculptures following the moods and movements of the music.



Stills/excerpts of June 10, 2013 first rehearsal of 3by3by3 continued:

Detail of GH's 3d Kinect camera interface which was seen projected live. GH's silhouette is traced by the interface in a 3D point cloud, each virtual cube in the interface was linked in real-time to a light sculpture in the set-up, as GH gestures from one cube to the next the light sculptures are triggered in real time on or off.



Rhys Chatham is a composer, guitarist, and trumpet player from Manhattan, currently living in Paris, who altered the DNA of rock and created a new type of urban music by fusing the overtone-drenched minimalism of the early 60s with the relentless, elemental fury of the Ramones, with the textural intricacies of the avant-garde colliding with the visceral punch of electric guitar-slinging punk rock.

Starting with *Guitar Trio* in the 1970s and culminating with *A Crimson Grail* for 200 electric guitars in 2009, Chatham has been working for over 30 years to make use of armies of electric guitars in special tunings to merge the extended-time music of the sixties and seventies with serious hard rock.

Parallel with his rock-influenced pieces, Chatham has been working with various brass configurations since 1982, and recently has developed a completely new approach to collaborations, improvised and compositional pieces involving trumpet through performances and recordings that started in 2009. Chatham's trumpet work deploys extended playing techniques inherited from the glory days of the early New York minimalist and 70s loft jazz period.

Rhys was introduced to electronic music and composition by Morton Subotnick in the late 60s, and in the early seventies he studied composition with La Monte Young and played in Tony Conrad's early group. These composers are, along with Terry Riley, the founders of American minimalism and were a profound influence on Chatham's work.

Chatham's instrumentation ranges from the seminal composition composed in 1977 entitled *Guitar Trio* for 3 electric guitars, electric bass and drums, to the epoch evening-length work for 100 electric guitars, *An Angel Moves Too Fast to See*, composed in 1989... all the way to Chatham's recent composition for 200 electric guitars, *A Crimson Grail*, which was commissioned by the City of Paris for La Nuit Blanche Festival in 2005. A completely new version of the piece was commissioned by the Lincoln Center Outdoor Summer Festival in 2009.

A Crimson Grail was recently performed in the context of the Liverpool Biennial at the Liverpool Cathedral, the largest cathedral in the UK. A new work for 6 electric guitars, electric bass and drums, *Harmonie du soir*, was commissioned by the French museum Palais de Tokyo and premiered in Paris on November 14th, 2013.



Clockwise from top left: *A Crimson Grail*, Liverpool Biennial at Liverpool Cathedral, September 2012; *A Secret Rose*, in Rome, February 2009; Conducting *A Secret Rose*, Williamsport, PA., May 2008; *An Angel Moves Too Fast to See* - Glasgow Biennial, May 1996; *A Crimson Grail*, Liverpool Biennial at Liverpool Cathedral, September 2012; *With percussionist Ryan Sawyer*, conducting *A Crimson Grail*, Lincoln Center, August 2009; *Guitar Trio at Soy Festival* - Nantes, France - October 2007; Conducting *A Crimson Grail*, Lincoln Center, August 2009.



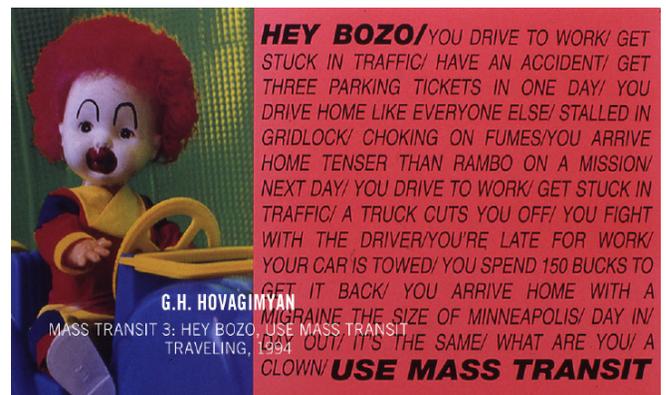
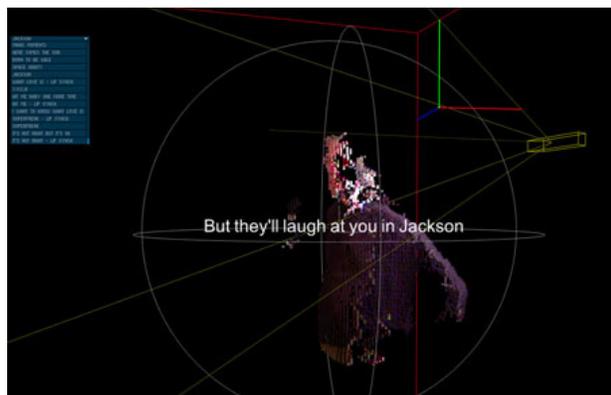
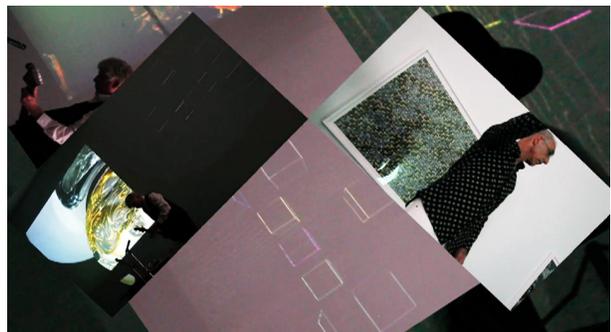
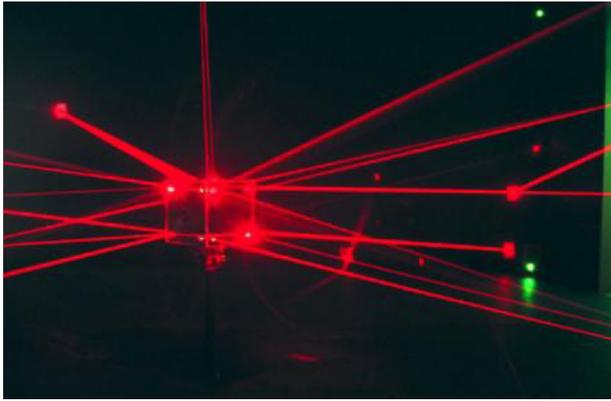
G.H. Hovagimyan is an experimental artist working in a variety of forms. An Internet and new media pioneer, his works range from hypertext works to digital performance art, interactive installations and HD video.

His works have been exhibited at MoMA, Mass MoCA, The Whitney Museum, The New Museum, The Walker Art Center, Jeu De Paume, MAC Marseille, MAC Lyon, Pompidou Center, Lincoln Center, ICA, The Clocktower, The Kitchen, The Alternative Museum, Eyebeam Art & Technology, List Visual Arts Center, La Gaité Du Lyrique, Stuttgart Kunstverein, Steim Institute, the Moscow Center for Contemporary Art, Postmasters Gallery, and the Pace Digital Gallery.

He has also exhibited works in major festivals and art fairs including; Art Basel Miami, Pulse Miami, Art Cologne, Split Film Festival, Conflux Festival, Video Dumbo, Scope Art Fair, Frieze Art Fair, Avignon Numerique, Documenta, Kassel, DE, Interferences 2nd International Festival of Urban Multimedia Arts, Les Musiques, Marseille, and Prix Ars Electronica 98, where he was awarded Honorable Mention in the music category for his collaborative work with Peter Sinclair.

His works are in the collections of The Walker Art Center, The Whitney Museum, The Alternative Museum, Computer Fine Arts Collection and Perpetual Art Machine.

Recent awards include: Pixel Palace, Newcastle, UK Artist Residency 2012, SVA MFACA Artists in Residence 2011-2012 - LMCC Governor, Island Artist Residency - 2010, Plazaville - 2009 commission of New Radio and Performing Arts, Inc. for its Turbulence web site made possible with funding from the New York City Department of Cultural Affairs, 2003 fellowship from Experimental Television Center, 2003 TAM Digital Media Commissions, 2002 Artists Fellowship from Franklin Furnace, 2002 pilot artist in residence program from Eyebeam, NYC.



Clockwise from top left: *Shooter* (interactive lasers and immersive sound) with Peter Sinclair, 2000; *HD Rants* (video-performance) videos produced by Brian Caiazza, 2006; *See/Saw* (interactive seesaw as movie controller), 2010; *Rich Sucker Rap* (video-performance) video by Davidson Gigliotti, 1978; *Mapped Morphs* (interactive animations) with music by Rhys Chatham, 2012; *A Valentine for Obama* (mixed media performance), 2010; *3D Karaoke* (interactive live 3D video), 2012 to present; *Hey Bozo* - (5 large scale billboards), 1994

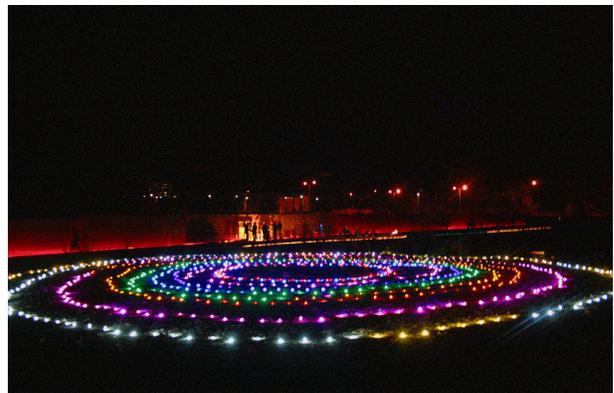
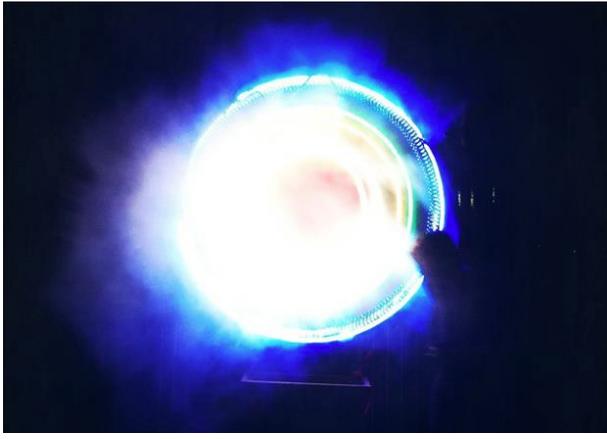


Raphaele Shirley is a French-American multi-media artist. She lives and works in New York City. She studied fine arts at the Beaux Arts of Aix-en-Provence, France and then moved to NYC in 1993. Her practice ranges from light art, sound, public art, social interventions, collaborative works and performance.

Some of her collaborations include *Perpetual Art Machine [PAM]*, an interactive video installation and online web community, founded in 2005, of over 2000 members. In 1998 she co-founded *The New York International Fringe Festival*, the largest theater festival in the US. She was video pioneer Nam June Paik's assistant from 1997-2002, where she developed his monumental laser works, including the 75-foot waterfall *Jacob's Ladder* for the S.R.Guggenheim museum in New York, Bilbao and Seoul and the 30 meter-wide, award winning, *Laser Waterscreen*, permanent on the lake of the Olympic Park of Seoul Korea. She built upon her experience with Nam June Paik and developed her own series of site-specific works, including a commission in Norway in 2009, *Jewels of Kvinesdal*, a 30' wide stainless steel, a xenon sky-beam viewable from 15 kilometers around. Another public art-work, commissioned in 2010, *Shooting Stair* for Dorfman Projects, Long Island, NY, is a water and laser light sculpture set outdoors. Her piece, *Light Shot on a Bender*, combining LED lights and water was presented in the Bring to Light festival in 2011 in Greenpoint, NY. She recently completed a 60-foot diameter light spiral for the Flint Public Art Project in Flint, Michigan.

Her work has been shown in venues such as the Museum of Moving Image, S.R. Guggenheim, Chelsea Art Museum and Post Masters Gallery in New York, the NCCA Moscow, 2nd Moscow Biennial and the Hermitage St. Petersburg, Russia, at the Museum of Modern Art, Linz, Austria and Art Basel/ Miami 2006. She participated in 2009 and 2010 in the artist residency/sail boat expedition to the Arctic Circle, Norway.

She has worked with artists such as Brian Eno, Bjorn Melhus, Elliot Sharp, David Linton, Algis Kizys, and Blair Thurman. Raphaela has been the recipient of several awards and grants, including two recently from the Norwegian Arts Council.



Clockwise from top left: *Light Shot on a Bender*, Bring To Light Festival, 2010; *Light Shot on a Bender*, alternate view; *Shooting Stair*, Dorfman Projects, South Hampton, New York, 2009; *Arctic Light series*, The Arctic Circle Residency, Svalbard, Norway, 2009; *Jewels of Kvinesdal*, Utsikten Art Center, Kvinesdal, Norway, 2009; *Jewels of Kvinesdal*, alternate view; *Shooting Circle Spinning Cloud*, Flint Public Art Project, Flint, Michigan, 2013; *Shooting Circle Spinning Cloud*, alternate view.

Tech Rider:

Rhys Chatham and musicians / sound set up

- Stereo PA sound system with mixing board, capable of comfortably amplifying the sound in the performance space
- Mixing board with at least four separate monitor mixes
- Stereo monitors with a left and right monitor placed on either side of Chatham
- Bass Amp: AMPEG SVT-4 Pro (or 2 Pro)
- Cabinet: AMPEG 810 (or 610)
- Any other brand must be approved in advance
- One complete professional drum kit (details upon request)
- Sufficient AC power to performance point

GH Hovagimyan / multimedia control

- 1 or 2 data projectors
- Sufficient AC power to performance point

Raphaele Shirley / light installation

- Strobes
- Laser array or 5-15 sharp lights
- Theatrical house spot lights and controller
- Industrial grade smoke machine
- Water Misting system or Liquid nitrogen

Space requirements:

- Minimum 2000 Sq Ft (185 Sq meters) for performance and audience, estimating a 200-person audience
- Spotlights for RC and GH
- Theatrical grid or mounting options to space structure
- 3 x 20 Amp lines of power (110 or 220 volts)
- Technical assistance for installation
- 1 regular 3/4" NPT, water hose connection at clean water source

Load in Time:

3 -5 day set up including rehearsal

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