# Curriculum Vitae

#### **Profile**

Accomplished interdisciplinary artist and strategic educational leader with extensive teaching, administrative and creative direction experience. Expertise in studio practice, traditional and experimental composition, improvisation, interactivity and intermedia art. A dedicated practitioner and educator with acute focus on student success, efficient and effective project actualization, collaboration, and fostering high morale. A passionate advocate for diverse and exploratory approaches to sound art, and developing innovative technologies to enable new forms of creativity and expression.

Chris is the Academic Department Chair of the Sound Arts, Interactive Audio, and Audio Bachelor's degree programs at SAE Expression College, the Executive and Creative Director of THE STUDI/O, and previously the Founder and Director of creative arts centers. Currently, Chris is completing a dissertation at The University of Edinburgh, researching the efficacy of multimedia in augmented reality environments.

For years, Chris worked closely with one of Billboard Magazine's Top Ten Producers of all time, 57 #1 Hits, multi-Grammy, Emmy & multi-Platinum Producer & Artist Narada Michael Walden at Tarpan Studios. As a Producer, Engineer, Composer, Arranger, Sound Designer, Programmer and Performer, Chris has worked with artists and companies including Apple, Google, Legends The Game, PETA, KSFR 90.7 FM (host), LeapFrog, Twisted Tools, Sting, Elton John, James Taylor, Carole King, Billy Joel, Smokey Robinson, Scientist, PSY, Playboy, GQ, Vogue, Salvatore Ferragamo, and Katy Perry.

"A man for all seasons...from Ahmad Jamal to the hippest in contemporary music, Chris knows how it's done...a whiz with the computer and the drums. Chris has the genius touch."

- Narada Michael Walden

#### **Artistic and Educational Interests**

Mysticism of Sound and Music

Providing context, inspiring ideas, creating narrative, and supporting development.

Developing Technologies to Enable New Forms of Expression and Creativity Interactive Environments as Real-Time Compositional Tools
Applications and Effects of Sound on Learning Efficacy
Interdisciplinary Arts Curriculum Development
Custom Instrument Design and Orchestration
Technical and Creative Project Development
Research and Thesis Advising and Critique
Sound Art and Experimental Composition
The Recording Studio as an Instrument
New Interfaces for Musical Expression
Indeterminacy and Graphic Notation
Experiments in Musical Intelligence

New Media
Soundscape
Sound Design
Electronic Music
Performance Art
Signal Processing
Interactive Design
Adaptive Storytelling
Percussion Ensemble
Electroacoustic Music
Intermedia Installation
Sound Producing Objects
Human-Computer Interaction

#### **Education and Certifications**

[ 2017 ] The University of Edinburgh, Moray House School of Education

Edinburgh, Scotland, UK: Master of Science (MSc), Digital Education

1<sup>st</sup> Class Honours

Education Research/Education Theory/Instructional Design/Learning Technologies/Human-Computer Interaction/Machine Learning/Educational

Data Mining/Learning Analytics/Augmented Cognition

Dissertation: The Efficacy of Multimedia in Augmented Reality Environments

[ 2016 ] Columbia University, Teachers College

New York, NY, USA: Learning Analytics: Process and Theory

Educational Data Mining/Intelligent Tutoring Systems/Artificial Intelligence

Professors Ryan S. Baker and Dragan Gašević

[ 2011 ] Stanford University, Center for Computer Research in Music and Acoustics

Stanford, CA, USA: Intelligent Audio Systems

Music Information Retrieval/Data Mining/Human-Computer

Interaction/Machine Learning/C++/MATLAB/Nonnegative Matrix Factorization

[ 2011 ] Gray Area Foundation for the Arts

San Francisco, CA, USA: Creative Coding/Human-Computer Interaction

[ 2007 ] University of California, Santa Cruz

Santa Cruz, CA, USA: Certificate - Algorithmic Computer Music (LISP)

**Professor David Cope** 

[ 2006 – present ] Apple Inc.

Boston, MA, USA: Apple Master Trainer Certification (ACT) T3

Apple Certified Master Trainer

Apple Certified Master Trainer Logic Pro X 10.3

Apple Certified Pro End User Logic Pro X 10.3

Apple Certified Master Trainer Logic Pro X 10.2

Apple Certified Pro End User Logic Pro X 10.2

Apple Certified Master Trainer Logic Pro X 10.1

Apple Certified Pro End User Logic Pro X 10.1

Apple Certified Master Trainer Logic Pro X 10 Apple Certified Pro End User Logic Pro X 10

Apple Certified Master Trainer Logic Studio 9

Apple Certified Trainer Logic Pro 9 Adv.

Apple Certified Trainer Logic Pro 9

Apple Certified Master Pro Logic Studio 9

Apple Certified Pro End User Logic Pro 9 Adv.

Apple Certified Pro End User Logic Pro 9

Apple Certified Master Trainer Logic Studio 8

Apple Certified Trainer Soundtrack Pro 2

Apple Certified Trainer Logic Pro 8 Adv.

Apple Certified Trainer Logic Pro 8

Apple Certified Master Pro Logic Studio 8

Apple Certified Pro Soundtrack Pro 2

Apple Certified Pro End User Logic Pro 8 Adv.

Apple Certified Pro End User Logic Pro 8
Apple Certified Trainer Logic Pro 7 Adv.
Apple Certified Trainer Logic Pro 7

Apple Certified Pro End User Logic Pro 7 Adv. Apple Certified Pro End User Logic Pro 7

[ 2002 – present ] USDOE, CADOE, BPPE, ACCSC Accreditation

Emeryville, CA, USA: Ongoing Education Faculty Development and Certification

[ 2001 ] Expression Center for New Media

Emeryville, CA, USA: Bachelor of Applied Science (BASc), Sound Arts (Honors) Acoustics, Sound Design, Signal Processing, Electronics, Studio Practice,

Electronic Composition, Multimedia Programming

#### **Academic Awards**

[ 2017 ]	1 <sup>st</sup> Class Honours, The University of Edinburgh
[ 2016 ]	<b>Principal Fellow</b> , Higher Education Academy In recognition of attainment against the UK Professional Standards Framework for teaching and learning in higher education
[ 2001 ]	Honors, Expression Center for New Media
[ 2000 ]	Artistic Merit Scholarship, Expression Center for New Media

#### **Educational Experience**

Academic Programs Chair – SAE Expression College, Emeryville, CA
Chair, Audio, AAS, BAS
Chair, Sound Arts, BAS
Chair, Interactive Audio, BAS
Associate Director, Sound Arts, BAS
Associate Director, Interactive Audio, BAS

- Directing education and operations of three baccalaureate programs.
- Developed and managed the rollout of baccalaureate programs across campuses.
- Supervise curriculum development and implementation.
- Managed up to fifty faculty members.
- College representative for education and technology panels, conferences and workshops.
- Instructor of Computer Music, Experimental Composition, Intermedia Installation, Interactive Environment and Audio Design, the Recording Studio as an Instrument, Signal Processing, Technical and Creative Project Development, Capstone Research and Thesis Advisor. Taught almost every course in the Sound programs, at some point.
- Student review average: 4.86/5.0.
- Awarded 'Instructor of the Year'. Awarded 'Faculty Member of the Year'.
- Student success focused.
- Actively involved in improving KPIs including measurable student success, new enrollments, attrition and reentries.
- Responsible and direct support for thousands of students, collectively.

- Assisted and supported thousands of student projects.
- Direct multiple teams of advanced students in the production of audio projects, including collaboration with outside departments and clients.
- Produced hundreds of projects w/ SF Bay Area artists Recruit and manage client relationships.
- Apple, Avid, Adobe certification liaison. Audio Engineering Society (AES) Student Chapter Advisor.
- Original Accreditation and renewal experience.
- Experienced in U.S. DoE Gainful Employment regulations for Title IV eligible programs.
- Experienced in Title IX regulations. Experienced in ADA protections and accommodations.
- Maintain programs aligned w/ policies established by the Dean, Director of Education, Registrar.
- Maintain faculty teaching credentials in compliance with state and federal regulations.
- Extensive policy development experience.
- Design and execute annual department budgets and purchasing of \$XXM.
- Manage 120,000 square feet of audio/video equipment and facilities across two campuses, including direct supervision of purchasing for theater halls, lecture classrooms, music and post recording studios, computer labs, broadcast studio, radio station, live performance venues, and video production facilities.
- Diagnose and troubleshoot analog and digital audio systems and implement solutions to ensure the reliable functioning of 40 zero-downtime studios and production suites.
- Manage extensive analog and digital media archives.
- Hire and train faculty, manage and organize faculty training and development initiatives.
- Perform faculty observations and annual performance evaluations.
- Manage the recruitment, contracting and billing of all faculty.
- Design and implement faculty and course schedules.
- Advise, plan and support Facilities in the design and development of branch campus and multimillion-dollar build-out of main campus.
- Train Admissions Representatives to increase product knowledge; advise prospective students.
- Catalog production.
- Campus Learning Technologies Coordinator.
- Campus Audio/Visual Technical Services Coordinator.

#### [ 01/17 – present ] Chair, Audio Curriculum Committee – SAE USA

National Project Manager of Audio Curriculum Development for 9 U.S. Campuses. Diploma and Degrees curricula include: Audio Programming for Interactive Media, Electronic Music, Sound Design, Audio Electronics, Sound Art Installation, Projection Mapping, Programming for Sound Artists, Intermedia Composition, Studio Practice, Interactive Design, and Adaptive Audio.

## [ 04/10 - present ] Course Director of Research Methods, Thesis Advisor - Expression College

Emeryville, CA – Course author and Instructor. Collaborative experience for the research and development of a comprehensive creative technology project. Emphasis on roles and phases of the system development life cycle, execution of all stages of creative-technical project research and development – creation of an interactive, audio-based, intermedia project of the student's design.

# [ 04/10 - present ] Course Director of Interactive Design - Expression College

Emeryville, CA – Course author and Instructor. Interactive environment design, audio programming, adaptive composition, sound design and implementation for non-linear interactive environments.

#### [ 05/07 – present ] Course Director of Computer Music – Expression College

Emeryville, CA – Course author and Instructor. History of electronic music, MIDI spec, sequencing, sampling, synthesis, drum programming, graphical

programming, audio editing, sound design, signal processing, electronic music, creating custom instruments, composing for multimedia applications and live performance, critically analyze electronic music principals and works.

#### [10/12 - 10/15]

#### Lecturer - San Francisco State University

San Francisco, CA – Lecturer and Curriculum Designer: Electronic Music, Sound Art. Student review average: 9.63/10.

#### [02/11 - 06/15]

#### **Executive Director – Apple Training Hawaii**

Kauai, HI – Founder and developer of the professional certification training centers from the ground up. Director of operations, facilities and infrastructure, maintained brand consistency across campuses and programs. Complete P&L accountability. Created and maintained web and social presence, and marketing. Managed/hired/trained program directors/faculty, developed and managed budgets, developed courses/curricula/policy.

#### [09/09 - 06/14]

#### Founder/Program Director – Expression PRO

Emeryville, CA – Independently developed and managed the professional training/certification branch of Expression College from the ground up. 221 unique students in the first year. Complete P&L accountability. Authorized Training Center/Partner initiation experience. Courses/certifications in Apple (AATC), Avid (ALP), Ableton (ACTC), Adobe, social media, animation/visual effects, game design, filmmaking, creative coding, electronic music, synthesis, electronics, projection mapping, and installation. Ongoing training of 40 Pixar artists, Gold Level distinction from Apple. Accreditation compliance. Hired/developed/managed faculty/staff, developed curricula, instructional design, scheduling, budget, student advising, web/social media, online education.

#### [01/10 - 01/12]

#### Project Manager of Curriculum Development - Expression College

Emeryville/San Jose, CA – Project Manager of Curriculum Development and Authorship of the Bachelor of Applied Science in Interactive Audio degree.

## [04/03 - 04/10]

#### Course Director of Game Audio – Expression College

Emeryville, CA – Course author and Instructor. Environment design, interactive audio programming, nonlinear composition, sound design and implementation.

# [ 06/02 – 05/07 ]

#### Course Director of MIDI I & II - Expression College

Emeryville, CA – Courses author and Instructor. History of electronic music, MIDI spec, sampling, synthesis, graphical programming, signal flow, electronic music, live performance.

#### **Honors and Awards**

## [ 2009 ] Faculty Member of the Year

Expression College – Staff Selection

#### [ 2008 ] Instructor of the Year

Expression College – Students' Selection

#### **Professional Experience**

#### [ 07/93 – present ]

#### Executive and Creative Director/Founder – THE STUDI/O

International – Design, production and consulting. Intermedia experts, audio/visual/interactive production, software design, AR/VR, installation, performance engineering, design and consulting for hundreds of artists and companies including Apple Inc., Imagine Research, Google, WorkforceLogic, Bag End, Universal Audio, LeapFrog, Honor Code Inc., Legends The Game, Ableton, Twisted Tools, iZotope, (dub legend) Scientist, Narada Michael Walden/Tarpan, PETA, Peachpit Press, Focal Press, KSFR 90.7 FM, SMACNA, 1Light Media, Harbor Picture Company, Stardust Brands, Alsiona, Mazrine, Massimiliano Giornetti, Salvatore Ferragamo.

#### [ 03/91 – present ]

#### **Independent Contemporary and New Media Artist**

International – Electronic and electroacoustic music and sound design, physical structures, electronics, alternative controllers, self-constructed instruments, nontraditional and jazz drumming, studio, live performance, mixed media, installation.

# [02/11 - 08/15]

#### Composer/Producer/Music Supervisor – Country Road Films

Los Angeles, CA – Multimedia production, mastering, composition and performance for clientele including GQ, Playboy, Vogue, PSY, and Katy Perry.

#### [09/01 - 09/04]

#### Producer/Songwriter/Engineer/Mixer - Tarpan Studios

San Rafael/Los Angeles, CA – Worked closely with one of Billboard Magazine's Top Ten Producers of all time, 57 #1 Hits, multi-Grammy, Emmy and multi-Platinum, Producer and Artist Narada Michael Walden. Worked on countless projects, including work for artists James Taylor, Carole King, Smokey Robinson, Greg Phillinganes, Siedah Garrett, Billy Joel, Sting, and Elton John.

"A man for all seasons...from Ahmad Jamal to the hippest in contemporary music, Chris knows how it's done...a whiz with the computer and the drums. Chris has the genius touch." - Narada Michael Walden

#### **Professional Associations**

International Society for Music Information Retrieval (ISMIR)

Special Interest Group on Computer Graphics (SIGGRAPH)

Society of Professional Audio Recording Services (SPARS)

Institute of Electrical and Electronics Engineers (IEEE)

Interactive Audio Special Interest Group (IASIG)

Association for Computing Machinery (ACM)

**Game Audio Network Guild (GANG)** 

**Acoustical Society of America (ASA)** 

**Higher Education Academy (HEA)** 

Audio Engineering Society (AES)

# Center for New Music (C4NM)

# **Fractured Atlas**

# Selected Works and Exhibitions (abridged)

[ upcoming ]	Stratum, Center for New Music, San Francisco, CA.
[ 2016 ]	Salvatore Ferragamo, Composer, Lo Splendore Della Vita, International.
[ 2016 ]	StocHastAkOviCh, autocomposer A fully programmable sequencer application developed in a graphical environment. Probability distribution autocomposer functionality with Dmitri Shostakovich homage-scale constraint. Controls for independent and global pitch and velocity, independent and vector linear pitch and modulation, independent and global note on/off, and quick-drum-sequencer section.
[ 2015 ]	Electroacoustic Compositions for Guitar featuring Mike Keneally
[ 2015 ]	<b>Nightingale</b> , sonification of Phaedrus Plato's dialog Phaedrus, represented by sound and musical traits; morphology; phonology.
[ 2015 ]	<b>Skeuomorph</b> , algorithmic concatenation Atmospheric story generated from a narration library employing corpus-based concatenative synthesis.
[ 2015 ]	<b>Art Walk</b> , Interactive Audio Open Studios, Expression College, Emeryville, CA. Interactive Multimedia Exhibitions.
[ 2014 ]	Simulacrum, formant transformations with Kyma.
[ 2014 ]	<b>Designing Musical Software</b> , San Francisco State University, A.S. Theater, San Francisco, CA. Presentation of live audio coding in a graphical environment, followed by an interactive performance utilizing original music software.
[ 2014 ]	Earthquakes (Remix), The Candle Thieves.
[ 2013 ]	PSY, Composer, Vogue Italia feature, International.
[ 2013 ]	$c^2$ , Boulevard, Chicago, IL. Electronic performance, laptop, physical objects, electronics, controllers.
[ 2013 ]	Face2Phase, facial gestural controller for audio and visual synthesis.
[ 2012 ]	Katy Perry, algorithmically produced composition, Vogue Italia, International.
[ 2012 ]	<b>Adaptive Systems Toolkit</b> , development in Kismet, graphical environments for interactive design.
[ 2011 ]	<b>GQ</b> , Composer, International.

[ 2011 ]	PETA, Composer, Save the Seals campaign, International.
[ 2011 ]	Laptop Quintet, Impromptu, CCRMA, Stanford University, Stanford, CA.
[ 2010 ]	Playboy, Composer, features, International.
[ 2010 ]	<b>Twisted Tools</b> , Sound Designer and Drum Programmer for Vortex, Scapes, Rolodecks, S-Layer, and Buffeater instruments.
[ 2010 ]	Synthesimage, spectral synthesis, audio sonification of gallery imagery.
[ 2009 ]	<b>CodeTrain</b> , algorithmic analysis and performance Algorithmic compositional tool written in LISP to create new performances in the style of John Coltrane. The software is designed to recognize patterns in rhythm, note order, and melodic, harmonic and contrapuntal movements and progressions, producing new music in the style of the recorded data set.
[ 2008 ]	$c^2$ , Tonic Room, Chicago, IL. Electronic performance, laptop, physical objects, electronics, controllers.
[ 2008 ]	Glitch Machine v1.2 LISP-coded system used to analyze and modulate rhythm data sets and create rhythmically new, complex and polyrhythmic patterns.
[ 2007 ]	<b>eLiS</b> , list sonification Data analysis tool written in Common LISP. Originally intentioned to provide an auditory representation of inaudible information such as earthquake activity, populations across locations, weather patterns, and extraterrestrial storms. eLiS scales and translates lists of information into MIDI pitch, velocity, ontimes, duration, and channels, among other parameters, to audibly observe.
[ 2007 ]	a-morph-ous, algorithmic composer Transformative algorithmic compositional software written under the mentorship of David Cope and his Experiments in Musical Intelligence, with the original intent to produce new symphonic works in the styles of Gustav Mahler and Béla Bartók. Developed as a model, the software recognizes patterns in rhythm, note order, and melodic, harmonic and contrapuntal progressions, producing new music in the style of the input data set. Developed as three analysis systems: polyphonic without rhythm for intractability, polyphonic with rhythm utilizing a Markov decision model, and polyphonic with rhythm and measure structure utilizing a Markov model while constraining analysis to smaller segments for less divergent composition.
[ 2006 ]	Legends The Game, complete sound design.
[ 2006 ]	<b>IMPULSION</b> , electroacoustic improvisation and field recording soundscape Multi-channel installation of an improvised performance of a self-designed percussion instrument and found sounds processed by self-designed impulse responses captured at their original recording location.

[ 2006 ]	<b>Viriconium</b> , Muse Gallery, Chicago, IL. Autonomous and interactive prepared percussion and synthesis installation utilizing a recursive feedback instrument.
[ 2005 ]	Scientist, Dub Producer Hopeton Brown, Engineer.
[ 2005 ]	<b>Girl on a Train</b> , McGonigal's, Barrington, IL. Live electronics, sound and light experiments with live electronic ensemble 7 League Boots.
[ 2004 ]	<b>Explorer Smart Globe</b> , LeapFrog, Sound Designer and Editor (contract).
[ 2004 ]	<b>Colour and Silence</b> , The Onion, Chicago, IL. Electronic performance, live electronics, sound and light experiments, noisemakers, controllers, drum kit.
[ 2004 ]	<b>String diSection</b> , interactive music concatenation system developed within a game engine.
[ 2003 ]	$\it C^2$ , Lilly's, Chicago, IL. Electronic performance, laptop, physical objects, electronics, controllers, drum kit.
[ 2002 ]	$c^2$ , Expression Center for New Media, Emeryville, CA. Installation of electronic music, tape experiments and live performance.
[ 2002 ]	Sting, Arranger, Rock for the Rainforest, Rainforest Foundation Concert, Carnegie Hall, New York, NY. Reconceptualization of previously composed work. Worked with Musical Director Narada Michael Walden on high profile
	conversancy benefit spearheaded by Sting and Trudie Styler.
[ 2002 ]	Carole King, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.
[ 2002 ]	
	Carole King, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.
[ 2002 ]	Carole King, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Smokey Robinson, Arranger, Rock for the Rainforest, Carnegie Hall, New York.
[ 2002 ]	Carole King, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Smokey Robinson, Arranger, Rock for the Rainforest, Carnegie Hall, New York.  Billy Joel, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.
[ 2002 ] [ 2002 ] [ 2002 ]	Carole King, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Smokey Robinson, Arranger, Rock for the Rainforest, Carnegie Hall, New York.  Billy Joel, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  James Taylor, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.
[ 2002 ] [ 2002 ] [ 2002 ] [ 2002 ]	Carole King, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Smokey Robinson, Arranger, Rock for the Rainforest, Carnegie Hall, New York.  Billy Joel, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  James Taylor, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Elton John, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.
[ 2002 ] [ 2002 ] [ 2002 ] [ 2002 ]	Carole King, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Smokey Robinson, Arranger, Rock for the Rainforest, Carnegie Hall, New York.  Billy Joel, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  James Taylor, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Elton John, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Siedah Garrett (Michael Jackson/Madonna), Engineer, Siedah, Los Angeles, CA.
[ 2002 ] [ 2002 ] [ 2002 ] [ 2002 ] [ 2001 ]	Carole King, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Smokey Robinson, Arranger, Rock for the Rainforest, Carnegie Hall, New York.  Billy Joel, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  James Taylor, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Elton John, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Siedah Garrett (Michael Jackson/Madonna), Engineer, Siedah, Los Angeles, CA.  About Time, tape effects study. Expression Center for New Media, Emeryville.  Jacked Kerowack, music composed by transforming recordings of Jack Kerouac reading his work. Conversely, the spoken word is effected by parameters
[ 2002 ] [ 2002 ] [ 2002 ] [ 2002 ] [ 2002 ] [ 2001 ] [ 2000 ]	Carole King, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Smokey Robinson, Arranger, Rock for the Rainforest, Carnegie Hall, New York.  Billy Joel, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  James Taylor, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Elton John, Arranger, Rock for the Rainforest, Carnegie Hall, New York, NY.  Siedah Garrett (Michael Jackson/Madonna), Engineer, Siedah, Los Angeles, CA.  About Time, tape effects study. Expression Center for New Media, Emeryville.  Jacked Kerowack, music composed by transforming recordings of Jack Kerouac reading his work. Conversely, the spoken word is effected by parameters unique to the newly generated composition.

[ 1997 ]	<b>Blight</b> , Cerrillos Historical Society, Duet, w/ J. Angelo. Railhouse, Cerrillos, NM.
[ 1997 ]	Inharmonique, Michael Wilding Gallery, Santa Fe, NM. Installation, drone, two reel-to-reel tape machines and electronics, experiments in equal temperament, alternative tunings and beating.
[ 1996 ]	<b>Percussion Ensemble</b> , International Community School, Addis Ababa, Ethiopia.
[ 1996 ]	ጫጫታ, field recording library created throughout East Africa.
[ 1996 ]	<b>Baroque Ornaments</b> , Santa Fe Art Institute, Santa Fe, NM. Artist-in-residence, soundscape installation for tape and projection of reimagined and recorded historical and contemporary local sound.

#### **Selected Mixed Media**

[ 2017 ]	petrichor, pedosphere, falling rain, textiles.
[ 2016 ]	ilinx, abstract, circles, acrylic.
[ 2015 ]	tintinnabuli, handbells, electronics, oil, action/abstraction.
[ 2014 ]	kangchenjunga, watercolour.
[ 2013 ]	beamformer, watercolour.
[ 2012 ]	penumbrae, action/abstraction.
[ 2011 ]	scintilla convergence, data points plotted on canvas, pointillism.
[ 2010 ]	$κ$ $\tilde{\upsilon}μα$ , starches, oil, acrylic, experiments in cymatics.
[ 2009 ]	kcollop, gestural abstraction.
[ 2008 ]	the river, acrylic, ink, salt, sand, acid.

# **Selected Writings**

# [ 2016 ] ADAPTIVE LEARNING DESIGN IMPLICATIONS: EFFECTS OF MULTIMEDIA ON LEARNING EFFICACY AND COGNITIVE LOAD

An experimental and data-driven study to inform effective adaptive learning domain model development decisions with an incipient exploration of cognitive load and learning efficacy when utilizing multimedia stimuli. The systems underlying these platforms rely on sophisticated feedback of human interaction, educational theory, learning analytics and educational data mining. The pilot is comprised of an overview of the proposed research, relevant literature of orthogonal and intersecting agendas, imbricated methodological experimentation, data processing and anticipated challenges. Results demonstrate that media types and combinations of media exhibit varying cognitive load, consequently impacting learning efficacy.

[ 2016 ] EFFECTS OF ARTS EDUCATION AND UNDERSERVED COMMUNITIES

This article explores the potential of arts education access and practice, and advocates that arts education is integral to human rights, social justice and academic, democratic and cultural inclusivity with qualities of importance to the empowerment and equity of underrepresented communities.

[ 2009 ] APPLE PRO TRAINING SERIES: LOGIC PRO 9 AND LOGIC EXPRESS 9: PROFESSIONAL AUDIO PRODUCTION, Peachpit Press, Technical Reviewer.

# Selected Broadcasts, Radio

[ April 26, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Steve Reich
[ April 19, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Daphne Oram
[ April 12, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: King Tubby
[ April 5, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Morton Feldman
[ March 29, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Pierre Schaeffer
[ March 22, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Edgard Varèse
[ March 15, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Éliane Radigue
[ March 8, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Laurie Spiegel
[ March 1, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Pierre Boulez
[ February 22, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Alexander Scriabin
[ February 22, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Mathews and Risset
[ February 15, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Pauline Oliveros
[ February 8, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Earle Brown
[ February 1, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: R. Stevie Moore
[ January 25, 1998 ]	Co-Host KSFR 90.7 FM, 'Stereo Jelly', Punk, Noise, Industrial, Avant-Garde
[ January 25, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, 'All Talk Don't Bounce'
[ January 25, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: La Barbara and Monk
[ January 18, 1998 ]	Co-Host KSFR 90.7 FM, 'Stereo Jelly', Punk, Noise, Industrial, Avant-Garde
[ January 18, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, 'All Talk Don't Bounce'
[ January 18, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Coltrane and Jones
[ January 11, 1998 ]	Co-Host KSFR 90.7 FM, 'Stereo Jelly', Punk, Noise, Industrial, Avant-Garde
[ January 11, 1998 ]	Host KSFR 90.7 FM, 'Eclecticism', Reggae, Hip Hop, Jazz, Electronic, Various
[ January 11, 1998 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Pérotin and Arvo Pärt
[ January 4, 1998 ]	Co-Host KSFR 90.7 FM, 'Stereo Jelly', Punk, Noise, Industrial, Avant-Garde
[ January 4, 1998 ]	Host KSFR 90.7 FM, 'Eclecticism', Reggae, Hip Hop, Jazz, Electronic, Various
[ January 4, 1998 ]	Host KSFR 90.7 FM, Santa Fe PR, AP: Ayler, Coleman, Dolphy, Gilmore, Braxton
[ December 28, 1997 ]	Co-Host KSFR 90.7 FM, 'Stereo Jelly', Punk, Noise, Industrial, Avant-Garde
[ December 28, 1997 ]	Host KSFR 90.7 FM, 'Eclecticism', Reggae, Hip Hop, Jazz, Electronic, Various
[ December 28, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, AP: The Velvet Underground
[ December 21, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: lannis Xenakis
[ December 14, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Terry Riley
[ December 7, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Scelsi and Schnittke
[ November 30, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Berg and Webern
[ November 23, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Aphex Twin
[ November 16, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Squarepusher
[ November 9, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Autechre
[ November 2, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Negativland
[ October 26, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Alvin Lucier
[ October 19, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Christian Wolff
[ October 12, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: David Tudor

[ October 5, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: La Monte Young
[ September 28, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: John Cage
[ September 21, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Messiaen and Satie
[ September 14, 1997 ]	Host KSFR 90.7 FM, Santa Fe Public Radio, Artist Portrait: Fela Kuti
[ March 1992 ]	Guest Co-Host WZRD 88.3 FM, Northeastern Illinois University, Chicago, IL
[ February 1992 ]	Guest Co-Host WZRD 88.3 FM, Northeastern Illinois University, Chicago, IL
[ February 1992 ]	Guest Co-Host WZRD 88.3 FM, Northeastern Illinois University, Chicago, IL
[ January 1992 ]	Guest Co-Host WZRD 88.3 FM, Northeastern Illinois University, Chicago, IL

# References

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