

Carla Scaletti

Symbolic Sound Corporation
206 North Randolph St., Suite 520
P.O. Box 2530
Champaign, Illinois USA 61825-2530
USA

Voice: +1-217-355-6273
Fax: +1-217-355-6562
carla@symbolicsound.com
<http://www.symbolicsound.com>

Education

Doctor of Musical Arts, University of Illinois at Urbana-Champaign, 1984

Major: Music Composition, Minor: Psychoacoustics

Master of Computer Science, University of Illinois at Urbana-Champaign, 1988

Master of Music, Texas Tech University, 1979

Bachelor of Music, University of New Mexico, 1977

Experience

- 1988-present **President, Symbolic Sound Corporation**
Co-founder of the Symbolic Sound Corporation
Designer of the Kyma language
Developed Kyma Sound Library
Instructor for the "Kyma Immersion Weekend" courses at Symbolic Sound
Author of the books *Kyma X Revealed!* and *The Kyma Sound Design Language*
Programmer in Smalltalk, C, and Motorola 56000 assembly language
- 1992-1994 **Adjunct Assistant Professor, University of Illinois School of Music**
1984-1994 **Research Associate, University of Illinois CERL Sound Group**
Advisor for graduate composition students
Co-investigator on National Center for Supercomputing Applications Data Sonification Project
Consultant on Sound for National Center for Supercomputing Applications Virtual Reality Lab
Co-investigator on computer improvisation project with Salvatore Martirano, Bill Walker, Kurt Hebel
Director and primary instructor for the annual *Intensive Workshop in Sound Computation*
Director of weekly *Seminars in Sound Computation* on the University of Illinois campus
Designer and programmer of music-related software for Macintosh and PLATO system
Composer of computer music using hardware and software developed and implemented by CERL Sound Group
- 1983-1984 **Visiting Assistant Professor, University of Illinois School of Music**
Lecturer on computer music, 18th-century counterpoint, and 20th-century music theory
Organizer of a weekly campus-wide seminar on computer music
Organizer of a Composers' Forum on student research in computer music
Harpist with the Contemporary Chamber Players
- 1982-1983 **Teaching Assistant, University of Illinois School of Music**
Instructor for freshman and sophomore theory and ear training courses
- 1981-1982 **Graduate Assistant, University of Illinois Experimental Music Studios**
Assistant engineer on the construction and wiring of the new Synclavier studio
Technician assisting in the maintenance of the electronic music studios
- 1981 **Research Assistant, University of Illinois Department of Psychology**
Researcher, developing sounds to be used in hypnotizing chemotherapy patients to avoid anticipatory nausea
- 1978-1979 **Teaching Assistant, Texas Tech University Department of Music**
Instructor of undergraduate harp students
- 1978-1979 **Principal Harpist, Lubbock Symphony Orchestra**
- 1975-1977 **Principal Harpist, New Mexico Symphony Orchestra**

Awards

- 2003 Texas Tech University Distinguished Alumnae Award "For invaluable contributions in the field of music"
- 1998, 2001, 2005 Electronic Musician Magazine Editor's Choice Award for Kyma Sound Design Workstation
- 1995 International Computer Music Association Commission Award (for the installation, *Public Organ*)
- 1991 AVS Multimedia Award for the video *Using Sound to Extract Meaning from Complex Data*
- 1991 Nicograph 10th Anniversary Award for the video *Using Sound to Extract Meaning from Complex Data*
- 1988 InterUniversity Consortium on Educational Computing / Apple Computer Fellowship
- 1980 University of Illinois Academic Fellowship
- 1979 Percussive Arts Society Composition Contest Prize for *Waves: Concerto for Harp and Percussion Ensemble*

Special Courses

Professor at Center for Creation of Music Iannis Xenakis (CCMIX) in Paris 30 hours of instruction each year from 2001-present.

Three-day Seminar on Sound Design at Ionian University in Corfu, Greece. November 2004.
London Kyma Users' Group Seminar at the Tape Gallery studios in London, UK. October 2003.
Kyma Workshop at Thames Valley University (LCMM) in London, UK November 2002.
Invited lecturer at Keele University. Keele, UK. October 2002.
Intensive Workshop on Sound Design at DIEZE (SIS) Film Sound Studios in Paris, France 2000.
Guest composer at KTH (Academy of Media Arts) in Köln, Germany 2000.
Intensive Kyma Workshop at LoveBytes Institute in Sheffield, UK 2000.
Introduction to Kyma at Thames Valley University (LCMM) in London, UK 2000.
Advanced London Kyma Users' Group Seminar at the Tape Gallery studios in London, UK 2000.
GastProfessor at the Institut für Electroakustik und Experimentelle Musik an der Universität für Musik und darstellende Kunst in Vienna, Austria. 1999.
Guest composer at University of Oregon Future Music Studios in Eugene Oregon. 1999.
GastProfessor at the Institut für Electroakustik und Experimentelle Musik an der Hochschule für Musik und darstellende Kunst in Vienna, Austria. 1998.
The Body in the Sound: Listener-Centered Sound Design, University of Kingston. London, UK. 1996.
Kyma: A Language for Creating and Manipulating Sound, University of Kingston. London, UK. 1996.
Kyma: an Overview at Bruckner Conservatory / SAMT. Linz/Hagenberg, Austria. 1996.
Guest Composer at NoTAM in Oslo, Norway. 1996.
Kyma, invited tutorial, International Computer Music Conference, Aarhus, Denmark. 1994.
California Institute of the Arts Composer-in-residence, Los Angeles, California. 1994.
Introduction to Data Sonification: SIGGRAPH course, Anaheim, California. 1993.
Advanced Kyma Workshop: EMS, Stockholm, Sweden. 1992.
Dartmouth College Graduate Timbre Seminar: two weeks of guest lectures. 1992.
Intensive Workshop in Sound Computation: Beckman Institute for Advanced Science and Technology. 1991-1993.

Selected Talks

"Metaphor in Mathematics and Sound" invited talk at Matematica e Cultura in Venice. March 2006.
"The Body in the Sound: Can non-speech audio convey meaning? (and if so, what does it mean?)" invited talk at the Laboratory for Creative Arts & Technologies. Baton Rouge, Louisiana. March 2005.
"A Sound is a sound is a sound: The design and implementation of a language for specifying manipulating, combining and controlling digital audio signals" invited talk at the Laboratory for Creative Arts & Technologies. Baton Rouge, Louisiana. March 2005.
"The Body in the Sound: Communicating with nonspeech audio" De Montfort University. November 2002.
"Aggregate Synthesis" SEAMUS Conference in Iowa City Iowa. 2002.
"Kyma.5 in Electroacoustic Composition" SEAMUS Conference in Baton Rouge, Louisiana. 2001.
"Aggregate Synthesis & FireWire" presented in a 10-city tour of the eastern US in October 2001.
"Kyma.5 Recombinant Sound" Lecture/Demonstration at Engine 27, New York City. 1999.
"Public Organ: Under the table and across the web," Bruckner Conservatory / SAMT. Linz/Hagenberg, Austria. 1996.
"Kyma: A Language for Creating and Manipulating Sound," Musikhochschule. Vienna, Austria. 1996.
"Sounds, Symbols, and Cyborgs," Alte Schmiede. Vienna, Austria. 1996.
"An Object-based Representation for Digital Audio Signals," Microsoft Corporation. Redmond, Washington. 1995.
"A Language for Digital Audio Signals," Computer Science Colloquium. University of Chicago. 1994.
"Kyma 2.0 for Windows," Society for Electro-acoustic Music in the United States, Austin, Texas. 1993.
"Computer Music in Kyma," invited speaker, Musik Hochschule, Vienna, Austria. 1992.
"Sound Synthesis Methods for Auditory Data Representation," First International Conference on Audio Display, Santa Fe Institute, October 1992.
"The Kyma System," invited paper at the Acoustical Society of America conference, Houston, Texas. 1991.
"The Kyma System," Society for Electro-acoustic Music in the United States, Urbana, Illinois. 1991.
"Kyma language for controlling digital signal processing hardware," Workshop on Signal Processing, Università degli Studi di Roma "La Sapienza", Dipartimento di Fisica, Rome, Italy. 1991.
"The Kyma System," special session on the Kyma System, International Computer Music Conference, Montreal, Canada. 1991.

Publications

- "Metaphor in Mathematics and Sound," a chapter in the book *Matematica e Cultura*, Michele Emmer, editor, Springer-Verlag, In Press for 2007.
- Kyma X Revealed!* textbook on Kyma and sound design. Symbolic Sound Corporation, Champaign 2004.
- "Kyma and the Future of Computer Music," *Computer Music Journal*. Invited article for the special issue Language Inventors on the Future of Music Software issue, Computer Music Journal V26, N4, Winter 2002, pp. 69-82.
- Kyma.5 Walkthrough: A Tutorial Introduction to Kyma.5*, C. Scaletti. Symbolic Sound Corporation, Champaign, 2000.
- The Kyma Language for Sound Design*, C. Scaletti and K. Hebel. Symbolic Sound Corporation, Champaign, 1997.
- "Reflections on the 20th Anniversary of CMJ," *Computer Music Journal*, v20, n3, pp. 31-35, 1996.
- "Sound Synthesis Methods for Auditory Data Representation," a chapter in the book *Auditory Display: Sonification, Audification, and Auditory Interfaces*, Gregory Kramer, editor, Addison Wesley, pp. 223-252, 1994.
- "A Framework for the Design, Development, and Delivery of Real-time Software-based Sound Synthesis and Processing Algorithms," *Proceedings of the 1994 Audio Engineering Society 97th Convention*, San Francisco, 1994.
- "The Software Architecture of the Kyma System," *Proceedings of the 1993 International Computer Music Conference*, Tokyo, 1993.
- "Polymorphic Transformations in Kyma," *Proceedings of the 1992 International Computer Music Conference*, San Jose, October 1992.
- "Lightweight Classes Without Programming," *Proceedings of the 1991 International Computer Music Conference*, Montreal, Canada, October 1991.
- "Using Sound to Extract Meaning from Complex Data," *Extracting Meaning From Complex Data: Processing, Display, Interaction II Volume 1459*, Edward J. Farrell Chair/Editor, SPIE-The International Society for Optical Engineering, San Jose, February 1991.
- "An Object-based Representation for Musical Signals," a chapter in the book *Representations of Musical Signals*, Giovanni De Poli, Curtis Roads and Aldo Piccilli, editors, MIT Press, pp. 371-389, 1991.
- "The Kyma/Platypus Computer Music Workstation" A chapter in the book *The Well-tempered Object: Musical Applications of Object-oriented Programming*, Stephen Pope, editor, MIT Press, pp. 119-140, 1991.
- "Kyma: an interactive graphic environment for object-oriented music composition and real-time software sound synthesis written in Smalltalk-80," University of Illinois at Urbana-Champaign Computer Science Department technical report, 1989.
- "The Kyma/Platypus Computer Music Workstation," *Computer Music Journal*, v13, n2, pp. 23-38, 1989.
- "Composing Sound Objects in Kyma," *Perspectives of New Music*, v27, n1, pp. 42-69, 1989.
- "An Interactive Graphic Environment for Object-oriented Music Composition and Sound Synthesis," *Proceedings of the ACM Conference on Object-oriented Programming, Systems, Languages and Applications*, pp. 222-233, 1988.
- "Kyma: an Object-oriented Language for Music Composition," *Proceedings of the 1987 International Computer Music Conference*, pp. 49-56, 1987.
- "The CERL Music Project at the University of Illinois," *Computer Music Journal*, v9, n1, pp. 45-58, 1985.

References and citations in other publications

Groves Dictionary of Music & Musicians

"A Day in the Life of Carla Scaletti," *Crossroads: The ACM Student Magazine* (http://www.acm.org/crossroads/dayinlife/bios/carla_scaletti.html)

Interview with Carla Scaletti as sidebar to "Linguaggi di programmazione" by Matteo Milani in *Strumenti Musicali* January 2006. http://www.graphicalsound.com/docs/Carla_Scaletti_interview.pdf

Kyma by Joel Chadabe EMF Institute Exhibit (<http://emfinstitute.emf.org/exhibits/kyma.html>)

Women Composers and Music Technology in the United States: Crossing the Line by Elizabeth Hinkle-Turner. Ashgate Publishing. London. 2006.

Digital Audio Workstation by Colby N. Leider. McGraw Hill 2004, pp 64, 83.

Electronic and Computer Music by Peter Manning. Oxford University Press 2004, pg 371.

Understanding Virtual Reality: Interface, Application, and Design by William R. Sherman, Alan Craig. Morgan Kaufman Publishers. San Francisco 2003, pg 257.

The Mathematical Theory of Tone Systems (Pure and Applied Mathematics (Marcel Dekker)) by Jan Haluska. CRC Publishers. Boca Raton 2003, pg 284.

Women and Music in History by Karin Pendle. Indiana University Press 1991, 2001, pp 350-351.

“The Electronic Century, Part IV: The Seeds of the Future” by Joel Chadabe. *Electronic Musician Magazine*. May 2000, pp 36-50.

“Wir sehen nur, was wir hören” by Manfred Dworschak. *Der Spiegel* 18/2000, pp 226-231.

Composing Interactive Music: Techniques and Ideas Using Max by Todd Winkler. MIT Press. 1999, pp16,43.

Audible Traces, In the forum Composing Women, Elaine Barkin & Lydia Hamesley editors. Zürich Switzerland. 1999.

“Listen Closely: Thanks to special effects, movies have been given a whole new look. Get ready for a whole new Sound” by Eben Shapiro. *The Wall Street Journal* Thursday March 10. 1998, pg C8

Joel Chadabe *Electric Sound: The Past and Promise of Electronic Music*.1997 Prentice Hall. pp 265-267, 337

The Industrial Electronics Handbook by J. David Irwin. CRC Press, Boca Raton 1997, pp 1405-6, 1438.

“Sound FX: When Hollywood Needed to Create the Perfect-Sounding Movie Villain, It Turned to Kurt and Carla”. Paul Wood, *Champaign-Urbana News Gazette*. Thursday, August 3, 1995, page C1.

Borchert, Gavin. “American Women in Electronic Music, 1984-94” *Contemporary Music Review*, 1997, Vol. 16, Parts 1-2, pp. 89-97. 1997, OPA. Amsterdam

“International Computer Music Conference: Platypus, Granules, Kyma, Daton, & the DSP56001 in Your Future” by Bob Moog, *Keyboard*. December 1987.

Recordings

Compositions:

sunSurgeAutomata, CDCM Computer Music Series, Vol. 3, Centaur Compact Disk CRC 2045, 1989

Lysogeny, 25th Anniversary Album for the Experimental Music Studios of the University of Illinois, 1984

Motet, Opus One Records Number 42, 1977

Solo or Chamber Music Performances:

Ragwyrk for Harp and for Carla Scaletti, Max Schubel, Opus One Records Number 50, 1979

Piece, Jordan Tang, Opus One Records Number 42, 1977

i thank you god for most this amazing, Joanne Forman, Opus One Records Number 34, 1977

Demos and show reels:

Kyma 4.5 Audio Demo CD, 1996

Videos

Using Sound to Extract Meaning from Complex Data

On exhibition at Kobe Harborland Computer Art Gallery. Kobe, Japan. 1992-1994

National Center for Supercomputing Applications. 1991

The International Computer Music Association Video Review. 1991

Video Supplement to SPIE Proceedings Volume 1459. 1991

Kyma Demonstration Video

Carla Scaletti and Kurt J. Hebel, executive producers. Prairie Productions. 1991

Lysogeny

Performance segment in *New Directions in Experimental Music*, Roger Inman, producer; Camille Hardy, executive producer. 1985

Selected Compositions and Performances

Frog Pool Farm

4 or 8 channel electroacoustic piece based on synthesis and transformations of frog sounds

2006	GraphicalSound's Kyma Sonic World Podcast	http://graphicalsound.com/Kyma_Sonic_World.html
2003	Electric Pacific	San Jose, CA
	Herbert Brün Festival	Urbana, IL
2002	Recontres 2002: Musique et Arts visuels	Paris, France
	City Gallery	Leicester, UK
	Keele University	Keele, UK

Tangled Timelines

Live performance for Celtic harp controlling and processed through Kyma (with the composer playing the harp)

2002	City Gallery	Leicester, UK
	Keele University	Keele, UK
	CCMIX	Paris
1999	Engine 27	New York City
	ELAK	Vienna, Austria
	Future Music Oregon	Eugene, Oregon

Public Organ

Interactive installation on the World Wide Web, commissioned by the International Computer Music Association

1995	International Computer Music Conference	Banff, Canada
------	---	---------------

Mitochondria

Tape composition based entirely on sounds from the telephone, realized using the Kyma System.

2000	Humor y Aliento 2 nd Intl Sound Art Festival	Mexico City
1999	Future Music Oregon	Eugene, Oregon
1996	KymaFest: The Concert	London, UK
1994	International Computer Music Conference	Aarhus, Denmark

Trinity

For live performer interacting with the Kyma System.

1992	Concert of Music from Kyma	Vienna, Austria
1989	International Computer Music Conference	Columbus, Ohio
	Hear and Now	Urbana, Illinois

Lament

For narrator processed through Kyma.

2002	City Gallery	Leicester, UK
	Keele University	Keele, UK
	CCMIX	Paris

sunSurgeAutomata

Tape piece realized using the Platypus Digital Signal Processor and based on cellular automata.

2000	Come, Hear!	Lancaster, UK
2000	Studio Exchanges	Montreal, Canada
1999	Future Music Oregon	Eugene, Oregon
1998	Digital Soundscapes	Vancouver, Canada
1997	EuCuE Series (20-channel sound projection)	Montreal, Canada
	Corpi del Suono	L'Aquila, Italy
1994	Aesthetics and Ideologies	West Lansing, Michigan
1993	Ultima Oslo Contemporary Music Festival	Oslo, Norway
1991	Oberlin Conservatory	Oberlin, Ohio
1987	International Computer Music Conference	Urbana, Illinois
	Northwestern University	Chicago, Illinois
	Michigan State University	West Lansing, Michigan
	SCREAM Festival	Los Angeles, California
	American Conference on Cybernetics	Urbana, Illinois
	Computer Music Weekend	Vancouver, British Columbia

X

Interactive piece for pianist and IMS digital synthesizer based on Cantor sets and iterates of a map.

1986	Contemporary Chamber Players Concert	Urbana, Illinois
	Southern Illinois University	Carbondale, Illinois

Levulose

Piece for IMS digital synthesizer and contrabass; based on the idea of left-handed sugars.

1992	Jackie Puckette / Howard Werschel	Atlanta, Georgia
1991	Alex McHattie/Performers' Workshop Tour	Europe
1985	Smith Memorial Room	Urbana, Illinois

1986	Mike Price recital Music Building Auditorium	Oslo, Norway Urbana, Illinois
------	---	----------------------------------

Lysogeny

Piece for harp and Music360 generated tape; based on lysogenic viruses and the spread of information.

1993	Musica Verticale	Rome, Italy
1988	Festival of New Music Women in Music Susan Allen Recital	Darmstadt, West Germany Heidleberg, West Germany Los Angeles, California
1985	Third Electronic Festival University of Louisville Indiana University With Strings Attached (MIT)	Chicago, Illinois Louisville, Kentucky Bloomington, Indiana Boston, Massachusetts
1984	New York University	New York City
1983	Columbia University Gustavus Adolfus Church International Computer Music Conference Tage Neuer Musik Composers' Symposium Performers' Workshop Concert Midwest Composers' Symposium	New York City New York City Rochester, New York Bonn, West Germany Albuquerque, New Mexico Urbana, Illinois Ann Arbor, Michigan

Blood Wedding

One hour of incidental music for the Garcia-Lorca play: 10 instruments and actor/singers

1982	Krannert Center for the Performing Arts (seven performances)	Urbana, Illinois
------	---	------------------

Professional Organizations and Activities

Founder & Chair, CU Café Sci, Café Scientifique of Champaign Urbana (<http://www.cu-café-sci.org>)

Board of Directors, Electronic Music Foundation (<http://www.emf.org>)

President, Salvatore Martirano Foundation

Advisory Board, IEEE Task Force on Computer Music

Organizer and Chair, Workshop on Sound-related Computation for Multimedia '93, Anaheim, California

Member, International Computer Music Association (former editor of *Array: Communications of the ICMA*)

Member, Society for Electro-acoustic Music in the United States

Member, IEEE and ACM

Paper review committee for the 1994-2001 International Computer Music Conference

Review committee for the 1994 ACM SIGGRAPH Conference, Orlando, Florida

Review committee for the 1992, 1994 International Conference on Auditory Display, Santa Fe Institute

At-large reviewer for NSF Special Section on Computer-Human Interface

Founder, Association for Computing Machinery Special Interest Group on Sound (SIGSound)