

Lydia Ayers

PUBLICATIONS:

Books:

1. A. Horner and L. Ayers, *Cooking with Csound, Part 1: Woodwind and Brass Recipes*, A-R Editions, Middleton, Wisconsin (The Computer Music and Digital Audio Series, Volume 18), 2002 (209 pages, with instrument designs on CD-ROM)

Journal Articles:

14. L. Ayers, "An Overview of Chinese Flutes," *Voice of the Wind*, Vol. 2, 2008, pp. 7-12
13. L. Ayers, "Is Native American Flute Music 'Classical Music,'" *Voice of the Wind*, Vol. 4, 2007, pp. 9-13
12. L. Ayers, "Dizi Selection and Performance," *The Flutist Quarterly*, Vol. 32, No. 4, Summer 2007, pp. 36-41
11. S. Lui, A. Horner and L. Ayers, "MIDI to SP-MIDI Transcoding Using Phrase Stealing," *IEEE Multimedia*, Vol. 13, No. 2, 2006, pp. 52-59
10. L. Ayers, "Making Scales from Mathematical Means," *Xenharmonikon*, Vol. 18, Summer 2006, pp. 200-223
9. L. Ayers, "Synthesizing Chinese Flutes using Csound," *Organised Sound*, Vol. 10, No. 1, 2005, pp. 37-49
8. A. Horner, L. Ayers and D. Law, "Synthesis Modeling the Chinese Dizi, Bawu and Sheng," *Journal of the Audio Engineering Society*, Vol. 47, No. 12, 1999, pp. 1076-1089
7. L. Ayers and A. Horner, "Modeling the Woodstock Gamelan for Synthesis," *Journal of the Audio Engineering Society*, Vol. 47, No. 10, 1999, pp. 813-823
6. L. Ayers, "Improvising with Tunings: *Themes and Improvisations for Woodstock Gamelan*," lead article, *1/1, The Journal of the Just Intonation Network*, Vol. 10, No. 2, 1999, pp. 1, 4-8, 20
5. A. Horner and L. Ayers, "Modeling Acoustic Wind Instruments with Contiguous Group Synthesis," *Journal of the Audio Engineering Society*, Vol. 46, No. 10, 1998, pp. 868-879
4. A. Horner, L. Ayers and D. Law, "Modeling Small Chinese and Tibetan Bells," *Journal of the Audio Engineering Society*, Vol. 45, No. 3, March, 1997, pp. 148-159
3. L. Ayers, "A Composition for Gamelan and Computer-Generated Tape: *Merapi*," *Leonardo Music Journal*, Vol. 6, 1996, pp. 7-14
2. A. Horner and L. Ayers, "Common Tone Adaptive Tuning Using Genetic Algorithms," *Journal of the Acoustical Society of America*, Vol. 100, No. 1, July 1996, pp. 630-640
1. L. Ayers, "The Chinese Connection: Harry Partch and the Li Po Settings," lead article, *1/1, The Journal of the Just Intonation Network*, Vol. 9, No. 2, October 1995, pp. 1, 5-13, 15

Submitted Journal Articles:

2. L. Ayers, "Synthesizing Slurs and Trills for Wind Instruments," submitted to *Journal of New Music Research* (approx. 12 pages)
1. L. Ayers, "Expressive Dizi Playing in Lu Chun-Ling's Arrangement of *Huang Le Ge*," submitted to *The Flutist Quarterly* (approx. 20 pages)

Book Chapters:

2. L. Ayers, "Computer Music Synthesis and Composition," in the *Handbook of Signal Processing in Acoustics*, D. Havelock, M. Vorlander and S. Kuwano, eds., New York, NY: Springer, to appear
1. A. Horner and L. Ayers, "Contiguous-Group Wavetable Synthesis of the French Horn in Csound," in *The Csound Book*, R. Boulanger and B. Vercoe, eds., Cambridge, Massachusetts: MIT Press, 2000, pp. 187-195

Refereed Conference Papers:

43. L. Ayers and A. Horner, "Synthesizing Ghost Voices in *Ghost Winds Talking*" *International Computer Music Conference 2009*, Montréal, Québec, Canada, pp. 331-334.
42. L. Ayers and A. Horner, "Artist Talk: *Ghost Winds Talking*," *Australasian Computer Music Conference 2009*, Brisbane, Australia, p. 130.
41. L. Ayers and A. Horner, "Synthesizing Ghost Voices with Timbre-Morphing in *Ghost Winds Talking*" 8th Annual New Music Festival (2009), Paper Session, California State University, Fullerton, p. 3
40. L. Ayers and A. Horner, "Synthesizing Some Australian Birds," *Australasian Computer Music Conference 2008*, Sydney, Australia, pp. 3-9.
39. L. Ayers, "Synthesizing Chinese Flutes," *Sonoimágenes 2007*, Buenos Aires, Argentina
38. L. Ayers, "Computer Music from Hong Kong," *Sonoimágenes 2007*, Buenos Aires, Argentina
37. L. Ayers, "Ornamentation on Chinese Folk Flutes," *National Flute Association, Thirty-Fifth Annual Convention*, 2007, Albuquerque, New Mexico
36. L. Ayers and A. Horner, "Didgeridoo Synthesis Using Timbre Morphing," *Australasian Computer Music Conference 2007*, Canberra, Australia, pp. 18-25
35. L. Ayers and A. Horner, "Synthesizing the Chinese Suona," *Sonorities 2007*, Belfast, Ireland
34. L. Ayers and A. Horner, "Synthesizing the Chinese Suona," *Asia Pacific Festival and Conference 2007*, Wellington, New Zealand
33. L. Ayers and A. Horner, "Comparing the Hawaiian Nose Flute with the Western Concert Flute," *Acoustical Society of America 2006*, Honolulu, Hawaii, USA, p. 3076
32. L. Ayers, "Fantasy Birds in *Yazi's Dream*," *International Computer Music Conference 2006*, New Orleans, Louisiana, USA, p. 33
31. K. Di Filippo, A. Horner, E. Fung, J. Lim and L. Ayers, "AUTUMN: A General Pitch-Extraction Wave-to-MIDI Transcription System" *International Computer Music Conference 2006*, New Orleans, Louisiana, USA, pp. 700-707
30. S. Lui, A. Horner and L. Ayers, "An Intelligent SP-MIDI Polyphonic Reduction Algorithm" *International Computer Music Conference 2006*, New Orleans, Louisiana, USA, pp. 666-673
29. J. Beauchamp, A. Horner and L. Ayers, "Effect of critical band data reduction on musical instrument sounds" *International Conference on Music Perception and Cognition*, 2006, Bologna, Italy
28. L. Ayers and A. Horner, "Synthesizing the Chinese Suona," *Medi(t)ations, Australasian Computer Music Conference 2006*, Adelaide, Australia, pp. 15-22
27. L. Ayers and A. Horner, "Synthesizing a Javanese Gong Ageng," *Proceedings of the 2005 International Computer Music Conference*, 2005, Barcelona, Spain, pp. 644-647
26. S. Wun, A. Horner and L. Ayers, "Extended Principal Components Analysis Matching with Spectral Weighting for Wavetable Synthesis," *Proceedings of the 2005 International Computer Music Conference*, 2005, Barcelona, Spain, pp. 189-192

25. S. Lui, A. Horner and L. Ayers, "MIDI to SP-MIDI Transcoding Using Phrase Stealing," *Proceedings of the 2005 International Computer Music Conference*, 2005, Barcelona, Spain, pp. 355-358
24. L. Ayers and A. Horner, "Synthesizing Music in Csound with a Javanese Gong Ageng," *Generate and Test, Australasian Computer Music Conference 2005*, Brisbane, Australia, pp. 11-14
23. L. Ayers and A. Horner, "Expressive Modeling of Chinese Folk Wind Instruments," *Journal of the Acoustical Society of America*, 2004, San Diego, California, Vol. 116, No. 4, p. 2619 (Invited Paper)
22. L. Ayers, "Synthesizing Timbre Tremolos and Flutter Tonguing on Wind Instruments," *Proceedings of the 2004 International Computer Music Conference*, 2004, Miami, Florida, USA, pp. 390-393
21. S. Wun, A. Horner and L. Ayers, "A Comparison between Local Search and Genetic Algorithm Methods for Wavetable Matching," *Proceedings of the 2004 International Computer Music Conference*, 2004, Miami, Florida, USA, p. 386-389
20. L. Ayers, "How to Jazz Up Your Courses with Multimedia Listening Guides," *Forty-Seventh Annual Meeting of the College Music Society*, 2004, San Francisco, California, p. 29
19. L. Ayers and A. Horner, "Synthesis of Chinese Dizi Ornaments," *Ghost in the Machine: Performance Practice in Electronic Music, Australasian Computer Music Conference*, 2004, Wellington, New Zealand
18. L. Ayers and A. Horner, "Computer Music and Chinese Computer Musical Instruments," *Thailand New Media Art Festival*, Bangkok, Thailand, 2004
17. L. Ayers, "Synthesizing Trills for the Chinese Dizi," in *Proceedings of the 2003 International Computer Music Conference*, 2003, Singapore, pp. 227-230
16. C. So, A. Horner and L. Ayers, "Wavetable Matching of Pitched Inharmonic Instrument Tones," in *Proceedings of the 2003 International Computer Music Conference*, 2003, Singapore, pp. 23-26
15. S. Wun, A. Horner and L. Ayers, "Perceptual Wavetable Matching for Synthesis of Musical Instrument Tones," in *Proceedings of the 2003 International Computer Music Conference*, 2003, Singapore, pp. 251-258
14. L. Ayers, "Expressive Performance of Five Chinese Flutes," *National Flute Association, Thirty-First Annual Convention*, 2003, Las Vegas, Nevada
13. L. Ayers, "A Multimedia Approach to Teaching Music," in *Proceedings of the First Teaching and Learning Symposium*, 2001, in Hong Kong, China, pp. 125-127
12. S. Wun, A. Horner and L. Ayers, "Perceptual Wavetable Matching for Synthesis of Musical Instrument Tones," in *Proceedings of the 2001 International Computer Music Conference* in Havana, Cuba, pp. 219-226
11. L. Ayers and A. Horner, "The Woodstock Gamelan," in *Proceedings of the 141st Meeting of the Acoustical Society of America*, 2001, Chicago, Illinois, Vol. 109, No. 5, p. 2367 (Invited Paper)
10. A. Horner and L. Ayers, "A hybrid additive-wavetable synthesis model for the horn," in *Proceedings of the 141st Meeting of the Acoustical Society of America*, 2001, Chicago, Illinois, Vol.109, p. 2400 (Invited Paper)
9. L. Ayers and A. Horner, "Common Tone Adaptive Tuning Using Genetic Algorithms," *MicroFest Conference and Festival of Music in Alternate Tunings*, 2001, Claremont, California
8. L. Ayers and A. Horner, "Modeling the Woodstock Gamelan for Synthesis," *Proceedings of the 1999 International Computer Music Conference*, Beijing, China, pp. 468-471
7. L. Ayers, and A. Horner. "Modeling Chinese Musical Instruments in Csound," *SEAMUS Conference*, 1998, Hanover, New Hampshire, USA

6. A. Horner and L. Ayers, "Modeling Chinese Musical Instruments," in *Proceedings of the 135th Meeting of the Acoustical Society of America*, 1998, Seattle, Washington, Vol. 4, pp. 2541-2542
5. A. Horner and L. Ayers, "Modelling Chinese Musical Instruments in Csound," *Proceedings of the 1997 International Computer Music Conference* in Thessaloniki, Greece, pp. 348-349
4. A. Horner and L. Ayers, "Cooking with Csound: Wavetable Synthesis of the Woodwinds and Brass," *Proceedings of the 1996 International Conference on Computer Music and Music Science*, Shanghai, People's Republic of China, pp. 27-28
3. A. Horner and L. Ayers, "Cooking with Csound: Wavetable Synthesis Recipes for Woodwind and Brass Instruments," *Proceedings of the 1996 International Computer Music Conference*, Hong Kong, pp. 390-391
2. A. Horner and L. Ayers, "Harmonization of Musical Progressions with Genetic Algorithms," *Proceedings of the 1995 International Computer Music Conference*, Banff, Alberta, Canada, pp. 483-484
1. L. Ayers, "Microtunings on the Woodstock Gamelan," *1992 New Hampshire Music Festival Composers Conference*, Plymouth, NH, USA

Panels:

2. L. Ayers, "Csound Panel," *1998 SEAMUS Conference* in Hanover, NH, USA
1. L. Ayers, "Panel Discussion II: Timbre and Orchestration," *1992 New Hampshire Music Festival Composers Conference* in Plymouth, NH, USA

Workshops:

1. L. Ayers, "Microtonal Workshop," 1990, Roulette, New York, NY, USA

Miscellaneous Talks:

7. L. Ayers, "Wild Herons," Guest Lecture, *Now and Present Flute Seminar*, Saugerties, NY, USA, 2009
6. L. Ayers, "Lips of Stone," *Guest Lecture*, California State University at Fullerton, CA, USA, 2009
5. L. Ayers, "Ghost Winds Talking," *Guest Lecture*, CalArts, Valencia, CA, USA, 2008
4. L. Ayers, "Great Spirit Song," *Guest Lecture*, California State University at San Diego, CA, USA, 2008
3. L. Ayers, "Computer Music in Csound," *Guest Lecture*, University of Maryland Baltimore County, Baltimore, MD, USA, 2005
2. L. Ayers, "Electroacoustic Music from Hong Kong," *Guest Lecture*, CalArts, Valencia, CA, USA, 2005
1. L. Ayers, "Electroacoustic Music from Hong Kong," *Visiones Sonoras Festival*, Mexico City, Mexico, 2005

Music Reviews:

5. **L. Ayers**, Video Review, "Enclosure One: Four Historic Art Films by Madeline Tourtelot with Music by Harry Partch," *1/1, The Journal of the Just Intonation Network*, Vol. 9, No. 4, Spring 1997, pp. 12-14
4. **L. Ayers**, CD Review, "Enclosure Two: Historic Speech-Music Recordings from the Harry Partch Archives, Four CD set, Produced by Philip Blackburn," *1/1, The Journal of the Just Intonation Network*, Vol. 9, No. 4, Spring 1997, pp. 14-19
3. **L. Ayers**, CD Review, "Harry Partch: 17 Lyrics of Li Po, performed by Stephen Kalm and Ted Mook," *1/1, The Journal of the Just Intonation Network*, Vol. 9, No. 4, Spring 1997, p. 15
2. **L. Ayers**, CD Review, "Ellen Fullman's *Body Music*," *1/1, The Journal of the Just Intonation Network*, Vol. 9, No. 2, October 1995, p. 2
1. **L. Ayers**, CD Review, "Just West Coast: Microtonal Music for Guitar and Harp," performed by Just Strings, *1/1, The Journal of the Just Intonation Network*, Vol. 9, No. 1, March 1995, p. 14-16

Dissertation:

1. **L. Ayers**, *Exploring Just Tunings: A Kaleidoscope of Extended Just Tunings and Their Compositional Applications* (University Microfilms, Ann Arbor, 1995, 2 volumes, 919 pages)