

SONIC CONNECTIONS

August 1st – 2nd 2003

**Faculty of Creative Arts
University of Wollongong**



Concert 1 Electro-nexus (107)

Friday 6.00 pm

Plus Minus

(2002)

Jon Drummond

Duration: c10 minutes

Performer: Jon Drummond

Plus Minus is an interactive work realised in Max/MSP that explores aspects of equal temperament based on 19 divisions of the octave. At the heart of the work is a virtual or digital instrument using 6 sinusoids being generated in real-time. During the performance I am able to improvise with the instrument directly by selecting specific pitches and durations. The instrument or patch also allows me to interact with the performance by generating clouds of notes using stochastic processes. Through interaction with the interface I can influence the density, range, pitch relationships and spectral aspects of the performance. The 19-tone scale provides access to a rich tonal pallet, from close frequency note pairings to uniquely tuned open chordal structures.

Everybody's a Buddha

(2003)

Van P Nguyen

Duration: 9:45

For million of years, there was a big rock in a far-away island in the middle of the ocean. One day, it happened that the big rock started giving birth and the Stony Monkey was born. The Stony Monkey was very wise and he became the Great King of the monkeys. One day, he cried bitterly that he wanted to live forever, that he wanted to become immortal. The only way to be immortal would be to go the way of Deities or Buddha. He decided he would do this in order to be their Great King forever. On his departure, there was crying and moaning from the elders. The sound of a big bell could be heard representing the purity of the Way to Immortality vibrating from the deepness of his soul. Sound sources include extracts from Berio's *The Cries of London*, the voice of soprano Francois Kuler in James Dillon's *Evening Rain*, Sound patterns from the Korg M1 keyboard, sounds of my own voice and breathing.

Part 1: (3:15) The spirit of Heaven and Earth. Giving birth. 15" Silence

Part 2: (5:15) Wondering through villages. Reach the mountain. The Great King.

Part 3: 50" Departure. Moaning. The bell of purity.

Spectral Dance

(1991-92)

Greg Schiemer

Greg Schiemer, UFO

Spectral Dance is one of a number of improvising machines composed for the MIDI Tool Box between 1989 and 1994. An improvising machine is a composition that allows me as performer to interact with a musical process without entirely controlling it. The algorithm at the heart of this process is the cyclic code generator. It is commonly used in digital communication for detecting and correcting errors. I have appropriated the process here to generate unexpected musical behaviour. I designed and built the MIDI Tool Box hardware specifically to explore this approach to algorithmic composition. In *Spectral Dance*, a moving sound source affects the algorithm in order to modify FM timbres generated on a Yamaha FB01 synthesiser. Composing the piece involved writing the program code for the algorithm. Written in assembler and implemented as firmware, this algorithm continually modifies and transmits MIDI System Exclusive information to produce constantly changing timbres on the FB01. The moving sound source used as the catalyst in the process is called a UFO, one of the remaining instruments of a set of analogue instruments called the Tupperware Gamelan which I built between 1978 and 1983. The cyclic code algorithm used in *Spectral Dance* has an interesting musical legacy predating modern digital electronics. In 1925 George Antheil used it to synchronise multiple player pianos in his *Ballet Mecanique*, In 1941 together with actress Hedy Lamarr, he successfully filed a patent for a secret communications device based on the same algorithm. The patent was then given to the US military but not used until 1963 during the Cuban missiles crisis. This patent is generally considered to be an important milestone in the history of spread spectrum communication and is now widely used in mobile cellular telephones. An anti-jamming device originating from a musical classic written by a composer who built new mechanical instruments in the early part of the twentieth century had been appropriated as a improvisational device in electronic composition during the last decade of the twentieth century.



Static Cling

(2000)

Bill Alves

Duration: 7:48

Video

I have been interested in the resonant patterns that emerge from the chaos of our world, in the same way in which you can start to see interesting patterns and shapes in the static screens of interstation tuning. In this piece, I have used a computer to transform the sounds of the nightly ritual chaos of local news broadcasts into abstract timbres and static images into patterns of visual resonance (inspired by my association with computer animation pioneer John Whitney, Sr.). In both cases, the patterns are based on harmonic proportions, known in musical tuning as just intonation. The computer allows me to create tunings which are not fixed, but vary according to the musical context. With this "free style" just intonation, I was able to create various tunings based on the harmonic and sub-harmonic series, contrasted in ways that reflect the transformation of the images. *Static Cling* was created on the Macintosh with Csound computer music language and Povray computer animation language.

Electropism

(2002)

Daniel Blinkhorn

Duration: ca. 9:00

Electropism is a portmanteau word combining 'electronic' with 'tropism' (turning toward) and illustrates the acoustic (instrumentation) turning toward the electronic. One of the primary compositional aesthetics of *Electropism V* addresses the role necessary connection plays in relation to an antecedent and its consequent. Throughout the work I have endeavored to establish musical phrasing, contour and sonic proximity of material to address the role of action, reaction and their respective necessary connections. The work is an improvised composition, created over a two-day period using a wide variety of musical actions, reactions and necessary connections written over a two-year period. All the material heard in *Electropism V*, both the acoustic and synthetic instrumentation, has been written, performed and programmed by myself.

A short impro for 1/8/04

DASE Team 5000

DASE Team 5000 will feature 3 laptops hooked up over a LAN running the DASE software. This software allows musicians to perform over the Internet in real-time. It was written by Kenny Sabir in 1999 for a Undergraduate Computer Engineering thesis project at UTS. Since then it has been rewritten and licensed to the Powerhouse Museum for their SoundByte project linking up music classes in high schools in rural NSW. The software has been used for live performances and recording for the Australian hip hop group 'the herd'. Free download www.soundbyte.org

Rule gnu, see nice Mr. Zoo

2003

Warren Burt

Duration: ca. 8:00-10:00

Warren Burt, Microzone keyboard

This is an improvisatory piece which uses the Microzone keyboard and the Vaz Modular softsynth. In this piece, I'm trying out a particular keyboard layout in order to explore the 64 note scale called "Euler Genus 3 5 7 9 11 13". There are an infinitely large number of Euler Genuses, but this particular one has lots of resources for both tonality and atonality. Ervin Wilson has pointed out how this scale can be divided up into 8 parallel 8 tone scales. There are 20 different ways to do this. In this piece, I'm exploring just one of these.



Dinner (Unibar)

Friday 7.00 pm

Dinner is available in the UniBar. Refer to map for directions.

Sitar and Violin (Theatre 107)

7.30 pm

Dao Streams: Fajing

(2003)

Peter Schaefer

Thomas Fitzgerald, violin; Peter Schaefer, sitar

The title refers to a chinese martial art concept involving a sudden release of stored energy, and also carries the connotation of the ebb and flow of quietness and explosiveness ... the piece explores the use of soloistic instrumental line against a textural backdrop of flexible instrumentation, such as horns/percussion and/or other improvised elements ... the soloist combines both notated and improvised material and is intended for performance by various melodic instruments, having been performed so far on violin and saxophone, to mention two the concert will also include other repertoire and improvised

Sonic Code

(2002)

Thomas Fitzgerald

for solo electric violin, samplers/delay signal treatments and pre-recorded playback sounds.

Duration: ca. 10:00

Thomas Fitzgerald, electric violin

Sonic Code explores the sounds of coded process and language. It explores relationships between embedded inaudible human body codes such as the silent mathematics of the genome code and the aural patterns of heartbeat codes that are the first sounds for every person. Other sonic languages and translations of language into numbers such as morse, radio, television and internet codes provide rich sonic material that interacts with the live solo electric violin. The work is constructed in two sections a free fantasia introduction, followed by a very fast and pulsatile rondo - that explores the rhythmic patterns of the various codes, developing relationships and transformations between them. The solid body MIDI/electric violin was made in the USA by ZETA in 1998.

Sound installation (Black Lounge)

8.00 pm

Pythagoras' Babylonian Bathtub

(2003)

Warren Burt

Duration: 2½ - 3 hours

This piece, a live improvisation for 3 laptops, uses a very large set of scales - enough for several civilizations, at least. The "Scale-Tree", first articulated by Charles Sanders Pierce, and later explored by Ervin Wilson, will generate an infinite number of Pythagorean scales of many different kinds. In this piece, I'm using 3 laptops with Manuel op de Coul's freeware Scala program to perform them. Mostly, the piece consists of held chords from 2 or 3 of these scales at any one time. I'm doing this to assemble very rich complexes of beating tones, which sound really appealing to me. Since the scales developed for this piece (by myself, Ervin Wilson and David Finnamore) form such a large field (167 scales), the piece is best experienced over long durations, and in a walk-in, walk-out environment such as a gallery, rather than a concert hall.



Concert 2 - FCA Staff Profile (Theatre 107) Saturday 12.00 noon

Temporary Assurance

(2003)

Aaron Hull

Duration: ca. 10:00-12:00

Aaron Hull, laptop

Temporary Assurance is an improvised work utilising field and studio recordings as subject matter and performed/delivered via laptop with use of MIDI controller. Music/sounds heard within this piece have been resampled transformed in realtime via DSP techniques and recontextualised, so that the sound has mutated and experienced a radical shift from when it was initially captured. There is no pre-conceived idea that manifests itself within this piece. This is not to say that my own moods, personal traits and feelings are not encompassed within my work as its composer/creator, but the process which enabled me to arrive at this point in time (a performance based improvisation) could best be described as an organic method, a method of trial and error. Often I feel that the piece moves and envelops me so that only after experiencing this sonic event I am able to communicate what it was that happened. I perhaps could perceive myself to be as much an audience member for it is not till after the event that I realise where I have been taken with my music.

Etude en Azure

(1985)

Stephen Ingham

David Vance, piano

Duration: ca. 4:00

Etude en Azure is the third movement of Stephen Ingham's *First Sonata for Piano*, composed in 1985 for the Scottish pianist Peter Sievewright, and first performed by him in Newcastle, U.K. in that year. Essentially a slow blues, the work hardly needs a learned analysis or lengthy commentary other than perhaps to say that it marked a return for the composer to tonal harmonic procedures after many long and arduous encounters with central European Modernism!

War Music

(1997)

Houston Dunleavy

Duration: 7:35

War music comes from a theatre work entitled *Ms. Serena's Serenata* by my friend and colleague Merlinda Bobis. It was premiered in a season by Company "B" at the Belvoir St. Theater, Sydney as part of the 1997 Sydney Asian Festival. Almost the entire score and sound design for this play was either computer-generated or computer-manipulated, and all of the musical materials, including that of *War Music*, is based on a Phillipino folk song. *War Music* is the largest single piece from the show, and exists as both a computer-realized work and as part of my orchestral work *Until September Next...and War*.

Meditation on Satie

(2001)

Houston Dunleavy

Duration: ca. 4:00

David Vance, piano

This little waltz and *Meditation on Satie* were originally part of the score for the incidental music to Tom Stoppard's play *The Arcadians*. While the waltz is fairly obviously constructed, the other work is built on a cyclic bass line which, and here it differs somewhat to the original model, is not co-ordinated with the cycles of the upper parts. It builds towards an intense climax before resolving gently into the ether. All of the thematic and harmonic material is derived from the cyclic bass line, as are the transpositions and rhythms used throughout the entire texture. The pieces owe their gentle nature and improvised "feel" to the dramatic situations of the play, but, one hopes, can be heard as complete in themselves. Both works are based on the same rising melodic fragment. They also exist, as does the rest of the music written for the play, as a piano duet entitled, *Meditations and Dances From Arcadia*.



Tempered Dekanies

(2001)

Greg Schiemer

Duration 6:00

This work explores a nexus between tuning, timbre and rhythm using Combination Product Sets (CPS), a class of scales proposed by Erv Wilson in 1986. A CPS scale is a just intonation scale formed when combinations of a set of harmonics are multiplied together. A 10-note CPS scale called the dekaney is generated by multiplying all combinations of pairs from a set of five harmonics. Two such scales are used in *Tempered Dekanies*, one generated from the harmonics 1 5 7 9 and 11, the other from harmonics 1 3 5 7 and 9. Each tone is treated with envelopes that affect microtonal pitch shifts based on just intervals. Various tempi evolve independently as a bi-product of the detuning process. In the work I wanted to hear these unique scales speak the language of the person who invented them and adapt my musical thinking in order for this to happen.

I am black

(2001)

Andrew Schultz

Duration: ca. 2:00

Lotte Latukefu, mezzo-soprano

David Vance, Piano

I am black is a short song for female voice and piano written in London in November 2001. The piece was written as a gift for my friend, the pianist Robin Bowman, with whom I had given concerts in Japan the previous year. The text is drawn from the Jerusalem Bible translation of *The Song of Songs* and depicts a woman's longing for her absent lover. It is unknown whether the woman is swarthy from outdoor work or black skinned racially. In the original text the sequence opens: "I am black but lovely." The implied social inequality of the lovers adds strongly to the poignancy of their mutual absorption.

Tell me then, you whom my heart loves
Where will you lead your flock to graze?
When will you rest at noon?
Before the dawn wind rises,
Before the shadows flee,
That I no more may wander,
Return, return.
I am black.

Evening

No. 3 of Three Songs to words by Emily Dickinson

John Wayne Dixon

Lotte Latukefu, mezzo-soprano

John Wayne Dixon, Piano

Duration: ca. 4:00

These songs were written and first performed in 1987. The terse epigrammatic nature of the texts induced me to write 'minimal' yet, I believe, appropriate accompaniments which hopefully help carry some of Dickinson's very beautiful imagery. *Evening* probably needs orchestrating in fact.

The Covenant

(2002)

Merlinda Bobis

Duration: 21:00

broadcast in ABC's 'The Listening Room' August 5th, 2002 and June 2003

The aftermath of a bombing. Employing poetry and documentary, this sound composition traces the progression of wars, of age, of sensibility and of attitudes towards loss, which culminates with a speculation on why "it" is dropped at all. The performers are: Peter Carroll, Felix Gentle, Damon Herriman, Tom Ulman and Chris Winter; sound is by Steven Tilley and Phillip Ulman with production by Jane Ulman.



Sound Installation (UoW Aquatic Centre) Saturday 1.00–3.00 pm

Collage

(2002)

Melissa Seeto

Duration: 8:56

Collage is a composition based on the Sheng scale. It was realised using a computer music synthesis program called Csound using only a handful of instruments, most notably oscil and pluck. Sheng is a Just Intonation scale chosen for its semitonal intervallic properties and characteristic chordal tone colours. The work is based on chords whose roots are C and F yet its focus is on texture formulating harmonies. Extensive use of chords is made to achieve subtle textural changes. The primary feature of this work is the ethereal atmosphere that pervades the various soundscapes that I have created.

Colliding Pentadekanies

(2003)

Greg Schiemer

Duration: 90:00

Colliding Pentadekanies is based on the pentadekany another of Wilson's CPS scales. It is realised using PD, a computer music synthesis program written by Miller Puckette, with tuning ratios created using Scala, a tuning editor, librarian program written by Manuel Op de Coul. The program synthesises 25 oscillators in groups of five. Each group is generated with its own tempo and rhythmic trajectory. As the five independent trajectories intersect new timbres are perceived. The trajectories are generated in real time using an algorithm based on modulo arithmetic. Since the piece received its first public presentation in May 2003, I have become aware that the algorithm accesses only 14 of the 15 notes of the pentadekany. While this is not the representation of Wilson's that I would have preferred, this defect will be a point of departure in some future exploration.



Xenophone



Concert 3 Xenharmonic Horizons (Theatre 107) Saturday 3.00 pm

BARSTOW

(1942)

Harry Partch

Christiaan van der Vyver, adapted guitar and voice

From <http://www.corporeal.com/lyrical.html#barstow> [with permission Jon Szanto]

During the 40+ years of composing, and especially during the first 20 or so, Harry Partch maintained a strong bond with, and love for, the spoken word. In fact, it was the proper setting of text with music (or maybe more correctly, with tones) that begat Partch's inquiries into just intonation, and his moving away from traditional European-style settings. These following are words that became part of his corporeal presentation, syllables with pitches. Additionally, the works that formed the larger grouping of compositions that are referred to as "The Wayward" (Barstow, U. S. Highball, San Francisco Newsboys, The Letter, and Ulysses at the Edge of the World) contain remarkably evocative language; a portrait of speech patterns and mannerisms that, filtered though daily experience, were not only modes of communication but models of expression. Though never one to purposely separate a holistic approach into individual components, it is hard to not see the intrinsic interest and beauty in these dialogues.

BARSTOW: Eight Hitchhiker Inscriptions from a Highway Railing at Barstow, California

Number One

[spoken] It's January twenty-six. I'm freezing. Ed Fitzgerald, Age nineteen. five feet ten inches, black hair, brown eyes. Going home to Boston Massachusetts, It's four p.m., and I'm hungry and broke. I wish I was dead. But today I am a man.

[sung] Going home to Boston, yuh-huh, Massachusetts. It's four p.m., and I'm hungry and broke. I wish I was dead. But today I am a man -- Oh-- O, I'm going home-- to Boston, yuh-huh, Massachusetts.

Number Two

[spoken] Gentlemen: Go to five-thirty East Lemon Avenue, Monrovia, California, for an easy handout.

[sung] Go to five-thirty East Lemon Avenue, in Monrovia for an easy handout, gentlemen. Yo-ho-ho -- Yoo-hoo-hoo -- Ya-ha-ha-- Yee-hee-hee-- Go to five-thirty East Lemon Avenue, in Monrovia for an easy handout, gentlemen. Yo-ho-ho -- Yoo-hoo-hoo -- Ya-ha-ha -- Yee-hee-hee

Number Three

[spoken] Marie Blackwell. Age nineteen. Brown eyes, brown hair, considered pretty. One-eighteen East Ventura Street, Las Vegas, Nevada. Object: matrimony.

[sung] Age nineteen, Brown eyes, brown hair, Oh, but I'm considered pretty. Here's where I live-Dah dah dah -- One-eighteen East Ventura Street, Las Vegas, Nevada. Taa -- Ta-ta-ta ta-ta-ta-ta -- ta-ta-ta -- ta-ta-taa- My object is - Yoo-hoo-hoo - Matrimony!

Number Four

[intoned] Dear Marie, a very good idea you have there. I too am on the lookout for a suitable mate. My description -- No description follows, so he evidently got his ride.

Number Five

[intoned] Possible rides: January sixteenth, fifty-eight. January seventeenth, seventy-six. January eighteenth, nineteen. January nineteenth, six. January twentieth, eleven. To hell with it -- I'm going to walk!

Number Six

[ad lib] Jesus was God in the flesh.

[sung] Hey hey hey -- Jesus-- Jesus was God in the fle-esh Hey hey hey -- Hey hey hey -- Hey hey -- Jesus was God in the flesh. Hey hey hey - Jesus -- Jesus was God in the fle-esh Hey hey hey -- Hey hey hey -- Hey hey -- Jesus was God in the flesh.

Number Seven

[intoned] Looking for millionaire wife. Good looking, Very handsome, Intelligent, Good bull thrower, Etcetera. You lucky women! All you have to do is find me, you lucky women. Name's George.

[sung] All you have to do is find me -- You lucky women -- Name's George.

Number Eight

[spoken] Here's wishing all who read this, if they can get a lift, and the best of luck to you. Why in hell did you come, anyway?

[sung] Damn it anyhow -- Here I am stuck in the cold -- I've come, twenty-seven hundred miles from Chi, Illinois -- Slept along the highway, slept in open boxcar without top. Went hungry for two days (raining too) - Dah dah dah dah -

But they say there's a hell -- What the hell do they think this is? Do they think about this? Dah dah dah dah

(and etc: more Dah-dahs here...)

I'm on my way, one half of desert to the east. Then back to El-lay, to try once more -- Car just passed by, make that two more, three more. Do not think they'll let me finish my story.

Here she comes, a truck, not a fuck, but a truck. Just a truck. Hoping to get the hell out, here's my name-- Johnnie Reinwald, nine-fifteen South Westlake Avenue, Los Angeles. Doh dee-dee

(and etc: more Doh-dees here...)

Here's wishing all who read this, if they can get a lift, and the best of luck to you - Doh doh doh doh doh doh -- dah dah dah - Why in hell did you come, anyway?



Leech in a Feverish Concrete. Urban World Ranter

(2003)

Catherine Florence Schieve and Warren Arnold Burt

Duration: ca. 8:00 –10:00

Written for the Melbourne Composer's League Electronic Music series, this duet for two laptops has Catherine playing melodies in a mode of one particular scale from Ervin Wilson's "Scale-Tree", while Warren plays chords from many different scales of the "Scale-Tree."

Doctor Maniac and the Brainsnatchers

(02-08-2003)

Gary Butler

Duration: ca. 10:00

Gary Butler (Dr. Maniac)

Brent Williams, Paul Wakefield, Houston Dunleavy (Brainsnatchers)

Just when you thought it was safe to go back in the Creative Arts Theatre, Doctor Maniac ("I didn't spend 8 years in this frickin' place to be called Mr. Maniac thank you very much") haunts the Faculty of Creative Arts building. Armed only with an 8-string amplified classical guitar in a 17-tone random tuning and a collection of noisemakers, he does battle with the evil brainsnatchers, who are intent on stealing his auditory expressions and twisting them to their own perverted purposes. Dr. Maniac supports Bulk-billing, JI (Just Intonation) and a regime change to resettle the coalition of the willing in Woomera as quickly as possible.

Aleph

(2002)

Bill Alves

Duration: 9:36

Video

Aleph was inspired largely by the geometric patterns of Islamic art, an art derived from the same proportions and numerical symbolism as the tuning systems of the ancient Greeks and Byzantines. In the music I have adopted similar proportions, known in music as just intonation, as well as intricate and slowly transforming patterns of pitches and timbres. Writers have connected the arithmetic symbolism of this art to the Arabic language and alphabet, the first letter of which, aleph, is a single vertical stroke. This stroke represents the descent of light, the "creative ray which initiates existence." From this simple division follows the expansion into creation, and the connection of all people to the cosmological rhythms of number and pattern. *Aleph* was created with povray computer graphics language and Csound computer music language. The music and images were composed in tandem.

Improvisation on a 53-note scale

(2003)

Christiaan Van der Vyver and Warren Burt

Christiaan Van der Vyver, Xenophone

Warren Burt, Scala keyboard

The xenophone, was built by Christiaan van der Vyver in 2002 to realise musical compositions written in just intonation. The design of the xenophone is an extension of the Partch's tonality diamond which was not only the harmonic centerpiece in Partch's instrumentarium, but a system of harmony whose origins extend back to the lamdoma, the tuning system used by ancient Greeks. Partch's tonality diamond groups pitches in a matrix of diagonally intersecting rows. On one axis, pitches correspond to the harmonic series, and tend towards major tonalities; on the other axis, pitches correspond to the sub-harmonic series and tend towards minor tonalities. In Partch's Diamond Marimba the notes on both the major and minor axis are arranged in melodic steps. The diamond layout in Van der Vyver's Xenophone differs from Partch's diamond in one small but very significant detail. On the minor axis of the Xenophone, pitches are arranged in triadic steps, while on the major axis pitches are arranged in melodic steps. While Partch's tuning limit includes the 11th harmonic, the Xenophone includes pitches based on 13 and 17th harmonic. The compass is spread over three octaves and while it covers pitches of a 54-note-per-octave scale, not every pitch in the scale is found in every octave. Whereas keys on some of Partch's instruments are marked only with fractions that represent pitch as a just intonation ratio, keys on the Xenophone are marked with just intonation ratios and notation symbols developed by American composer Ben Johnston to solve the problem of notating music in extended just intonation which Partch ignored. For this performance I have asked Christiaan to ignore the problem of notation once more and improvise with Warren Burt who will improvise using the Scala program for which he has devised a virtual the 54-note keyboard based on the Xenophone. GS.



Elegy in Memory of Bill Colvig

(2000)

Bill Alves

Duration: ca. 9:00

Vanessa Black, violin

Bill Alves (leader), gender panerus

Byron Mark, gender barung

Daniel Kurtz, slentem

Dwight Mowbray, bonang panerus

Aimee Clayton, bonang barung

Luke Stoker, gong

The Iron Pelog gamelan has been loaned to the University of Wollongong by the Australian Museum

Bill Colvig was a wonderful musician, mountain climber, and instrument designer and builder. Like many, I was charmed by Bill's energy, good humor, love of the earth, and his puns. Upon learning of his death in March 2000, I was moved to write an elegy in his honor for violin and gamelan orchestra. With his life partner Lou Harrison, Colvig built the first of what he called an "American Gamelan," that is, a set of metal instruments based on those of the famous Javanese gamelan, but tuned to just intonation scales that were then used in new music by Western composers, rather than traditional Indonesian works. He thereby established a tradition of borrowing the concepts of gamelan instruments for use in experimental composition, an idea which is still kept alive by such groups as the Gamelan Son of Lion in New York, the Pacific Rim Gamelan in Oregon, the Gamelan Pacifica in Washington, as well as my own just intonation Harvey Mudd American Gamelan in California. Many of the instruments he constructed are still in common use, a legacy of beauty for which we are indebted to Bill.

The MOSsy Slopes of Mount Meru

2002-2003

Warren Burt

Duration: ca. 2½ hours, but in this case about 10 minutes

This piece explores the harmonies inherent in a mathematical diagram known as the Meru Prastara, also rediscovered in the West as Pascal's triangle. This diagram will generate an infinite number of number series called "additive sequences" and each of these sequences can be used to make scales with. I'm using 11 scales, each with 6 variations in this piece, for a total of 66 scales. In shorter versions such as this, I freely wander between the scales, treating the whole set as a large harmonic field to wander freely within.

22 June 2003 AXLE Piece

(2003)

Warren Burt and Catherine Schieve

Duration: ca. 6:00

This is a piece for two improvising reader/actors and electronic sounds. The readers use a score of 14 transparent sheets, on which are photocopied concrete poems made from anagrams of the names of the members of the AXLE visual poetry group. These are juxtaposed in real time, making continually new texts for the performers to work with. The electronic sounds are another realization of these concrete poems, using Rasmus Ekman's freeware Coagula program, which converts graphics into sound.



Elegy for Lou Harrison

(2003)

Bill Alves

Duration: 6:00

Vanessa Black, violin

Bill Alves (leader), gender barung

Byron Mark, gender panerus

Dwight Mowbray, slentem

Daniel Kurtz, gong

Lou Harrison was one of the great composers of the twentieth century and a pioneer in the use of alternate tunings. Born in 1917 in Portland Oregon, he studied with composers Henry Cowell, Arnold Schoenberg, and Virgil Thomson, and collaborated with his friend John Cage in the establishment of ground-breaking percussion concerts in the 1930s and 40s. He edited the works of Charles Ives and conducted the premiere of Ives's *Third Symphony* in 1947 in New York. However, the stress of living in the New York environment mounted, and, after a period at the famous Black Mountain College for the arts, he moved back to California, where he remained the rest of his life. There he developed two of his most famous passions, just intonation (through a friendship with Harry Partch) and Asian music (which he studied in Korea and Taiwan in the 1960s). In the 1970s, Harrison began to compose for the Javanese gamelan orchestra or gamelan instruments newly made with his partner Bill Colvig. In the 1980s, with the rise of interest in the "new tonality" and world music, the world began to catch up with Lou Harrison, who by the time of his death was recorded on dozens of CDs and was the subject of many festivals and tributes. On his way to another festival in his honor this January in Ohio, Harrison suffered a heart attack and passed away at the age of 85. I was proud to have had him as a good friend and mentor, and my gamelan in California premiered this piece in his honor at last May's MicroFest festival of microtonal music. As a composer, artist, poet, calligraphist, peace activist, Lou Harrison dedicated his life to bringing beauty into the world, and those of us who remember his warm generosity, his integrity of spirit, and his irrepressible joyfulness, owe a great debt of gratitude that he did.

Etude for Microzone

(2003)

Bill Alves

Duration: ca. 7:00

Bill Alves, Microzone

As part of my residency here at the University of Wollongong this winter, I was privileged to be here at the time of the receipt of the Starr Labs U-990 "MicroZone" microtonal keyboard, which was acquired as part of the same Australian Research Council grant that brought me here. The grant's investigator, Dr. Greg Schiemer, was generous enough to encourage me to experiment with this instrument during my stay. The MicroZone's layout of 990 hexagonal keys was designed by tuning theorist Ervin Wilson, who in turn based it on the generalized keyboard of the 19th-century English scientist Robert Bosanquet. Being a MIDI controller, it makes no sound on its own, but the keys may be interpreted by a synthesizer in any configuration the composer wishes to program. I have chosen an "eikosany" -- a set of 20 pitches each consistently related to one another by a small set of integers in a way also invented by Erv Wilson. I have mapped those 20 pitches (with some duplications) onto two rows of 12 hexagons, and I have established different timbres and functions on different areas of the keyboard. This piece is the result of those experiments.



CHESS - sound installation (G17)

Friday 5.00 pm
Saturday 1.00-3.00 pm

Heisenberg

(2002)

Andrew Lyons

Heisenberg is a synthesised, abstract and spatial audio-visual artwork intended for performance using a 16:9 aspect ratio display, and either stereo headphones or a 5.1 speaker array. *Heisenberg* was originally prepared as part of doctoral research into the integration of 3D sound and 3D graphics. Central research concerns included music composition involving moving sound sources and a consideration of mental imagery elicited by listening to this spatialised music. While some of the sound preparation and spatialisation was completed using "Csound", much of the composition, animation and spatialisation was completed using algorithmic techniques in 3D animation software called Houdini. For more information about *Heisenberg* visit: www.tstex.com.

Munich

(April 2000)

Allyson Newman

Duration: 3:24

Munich was created to demonstrate the 3D audio capabilities of Lake Technology's Lake Huron system at the Audio Engineering Conference in Munich 2000. It was subsequently used at the AES conferences in New York and Los Angeles the following years. I was very fortunate to be able to work on *Munich* at Lake's office in Ultimo Sydney. This system was in a developmental state and I worked in parallel with a team of engineers who fixed the occasional bug I discovered as this piece was being constructed. The Lake Huron was set up in a sound proofed room that had a 12 speaker array inside it. I spent several days in this room trying to come to grips with this new tool I was working with. When I found that I was "chasing my tail" trying to get things to work properly, I asked one of the engineers what I had done wrong, he answered "Oh that's just another bug you've found...thanks". *Munich* was an experiment both for myself and for Lake. The piece is somehow reminiscent of my 7-day experience in a speaker cage.

Plus - Minus

(2002)

Jon Drummond

Duration: 9:00

(see program note Concert 1)

Tempered Dekanies

(2001)

Greg Schiemer

Duration: 6:00

(see program note Concert 2)

16:22

(2003)

Damien Lock

Duration: 3 mins 22 secs.

Format : Region 0 DVD, AC3 Audio

A work in progress. Anecdotal thoughts about communication devices - from an 802.11g transmitter hub to smoke signals and an erratic spectrum in between - related visually. These thoughts were provoked by the vocabulary of a Max/MSP instrument which has assembled a palate of gamelan sounds as a terrain. The instrument pulls together multiple streams of snapshot sequences from the samples spheres as the user navigates around the assembled material. Its interface is still currently being refined. Max/MSP programming by Damien Lock, Video and compositing by Lulu Ong, both of whom have had many productive coffee breaks with Greg Schiemer.



Sound sculptures (FCA Foyer)

Sound Shower 1

(2003)

David Mercer

Medium: Wood, found objects, sound recording

Sound Shower 1 is a sculpture in the medium is sound. It is not meant to be a sculpture that makes sound, but a sculpture made of sound, instead of bronze or clay. This means that it is important to look not at the plinth or fittings, but to try and 'see' the sound. Having sound replace a common element such as water means the sculpture works so that the viewer can easily imagine the sound as a physical object. Just as you control the water pressure in your shower using taps, the sound coming from sound shower can be controlled. Gentle water pressure equals soft, inoffensive levels of audio, while more pressure is a louder blast of beeps and buzzes splashing on your skull.

Sound Drain

(2003)

David Mercer

Medium: Wood, found objects, sound recording, peizo-transducers, effects unit

Something is down there in that void and it wants your help. Human, computer, cyborg or Art rat? Atop the plinth is nothing but the roof of the underneath world. Whatever is down there is making sculptures that are flowing out the drain. Every forty minutes it pleads and abuses and makes some more sculptures. Do what it says and you send a sound back down the drain. When the voice is quiet, the noise of a poorly built amplifier buzzes quietly away, a continuous stream of sonic matter.