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Arpay

Communications of the ICMA



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ICMA News

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ARRAY is the triannual
publication of the International
Computer Music Association.

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possible, in part, by a grant from the
National Endowment for the Arts, USA.

Greetings from the President and the New
Officers and Board Members.

This has been an interesting and exciting
summer and fall with the 1995 ICMC in
beautiful Banff, a suspected letter-bomb to
the ICMA (turned out to be a strangely
folded membership form), a post from an
organization offering to supply the ICMA
with pre-packaged sermons for our minist-
ry and the election of new ICMA Officers
and Board Members! First of all, on the
part of all ICMA members, I wish to offer
a thank you and appreciation to Bruce
Pennycook, Publications Coordinator, Rob-
ert Rowe and Brad Garton, ARRAY co-
editors, and Rodney Waschka II, Treasurer
for their dedication and service to ICMA.
As you know, these are volunteer positions
and the time and energy required is often
overwhelming. Gentlemen, your efforts
have been outstanding and the ICMA could
not have moved forward without you. A
second round of applause goes to Stephen
Arnold and Tamas Ungvary for their lead-
ership and guidance as ICMA Board Mem-
bers. Their experience has been essential
in the international concerns of the ICMA.
Thank you Stephen and Tamas!

I am pleased to announce the new slate of
ICMA Board Members, elected by the
membership-at-large and the ICMA Offic-
ers, elected by the ICMA Board. These
terms begin January 1, 1996.

ICMA Officers

Allen Strange, President [USA]
Cort Lippe, Vice-President [USA]
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Shuji Hashimoto, Regional Vice-
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ICMA Board of Directors

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Perry Cook [USA]
Roger Dannenberg USA]
Paul Lansky [USA]
Cort Lippe, [USA]
Katharine Norman [England]
Larry Polansky [USA]
Mary Simoni [USA]
Patte Wood [USA]

Welcome Katharine, Shuji, Larry and Perry!

You will notice there have been a couple of
organizational changes. Dr. Shuji
Hashimoto of Waseda University in Tokyo
has been elected ICMA's first Regional
Vice-President. Representing the Oceania,
Asia (Pacific Rim, Austral-Asia, etc.) re-
gion, this office is responsible for member-
ship and the organization of ICMA regional
activities. The ICMA Board is still devel-
oping plans for identifying regional vice-

NOTICE TO CONTRIBUTORS

The deadline for submissions for the next
issue of ARRAY, Vol. 16, No. 1, is
February 15, 1996. All submissions to
ARRAY must be in machine-readable
form. You must submit items using
electronic mail or on a floppy disk (either
Macintosh or IBM). If you submit any-
thing solely as hard copy, it will not be
considered for publication in Array. If
you send a submission on floppy disk,
please send two copies: one as a plain
ASCII text-only file, and the other copy
as the file that your word processor uses.

Please do not use any formatting other
than italics and bold face. If you wish to
include graphics with your submission,
please do so in TIF or EPS format only.
It is helpful if you can include a hard
copy as well. If you would like your
disk returned, please include a self-
addressed, stamped return envelope.

Send ARRAY submissions to :
ARRAY/International Computer
Music Association
Suite 330, 2040 Polk Street
San Francisco, CA 94109
e-mail: icma@sjsuvm1.sjsu.edu

Email submissions and inquiries will
receive the quickest response.

ICMA News, cont.

presidents for Europe and the Americas. It is hoped to have these offices filled by the time we meet for the 1996 ICMC in Hong Kong. Also notice that the offices of Secretary and Treasurer are now carried by one person, Patte Wood. As well as being a logical combination for the ICMA organization, it is especially convenient as both Patte and I are only a few miles from each other. And now we also have our first European *ARRAY* editor, Katharine Norman from the University of Sheffield in England. This will bring an exciting new perspective to our triannual newsletter.

The 1995 International Computer Music Conference in Banff, Canada, was a resounding success due to the efforts of Kevin Elliott, Connie MacDonald, Don Stein and the cast of behind-the-scenes staff and volunteers. To quote Mike Minnick as he was strolling between the elk and trees, "How can we concentrate on something as trivial as computer music in a place like this?" The conference presented the 1995 Commission Awards, *Public Organ* by Carla Scaletti [USA] and *Unsound Objects* by Jonty Harrison [England], and the first Swets & Zeitlinger Distinguished Paper Award, *Exploration of Wind Instruments Using Digital Signal Processing and Physical Modeling Techniques* by Matti Karjalainen, Vesa Välimäki, Bertrand Hernoux and Jyri Huopaniemi from Helsinki University of Technology in Finland. The winners of the 1996 ICMA Commission Awards were announced as Francis White [USA] and Ricardo Dal Farra [Argentina] and these works will be presented at the 1996 ICMC in Hong Kong.

Speaking of the ICMA Commission Awards, the 1992/93 commissioned works are now available as Volume 21 of Centaur's CDCM Series. This CD is available to ICMA members at a special price and may be ordered direct through the ICMA Order Form or from CDCM (see advertisement on page 5.) The 1994/95 Commission Award compositions will be made available as Volume 25 of the CDCM Series in 1996. The ICMA has become a charter organizational member of the new Electronic Music Foundation organized by Joel Chadabe. This organization's mission is to

document the history of electronic/computer music via an archive of recordings, photographs, publications, recollections, etc. ICMA has arranged a 5% discount on all items in the foundation's catalogue (see announcement on page 7.)

Robert S. Newcomb has been given the official post as ICMA Webmaster. If you have not visited the ICMA Home Page take a trip to <http://coos.dartmouth.edu/~rsn/icma/icma.html>. You will note that the various personal Home Pages of the ICMA members have been linked there. If you would like to have a link to your personal page send the complete URL to Robert at icma-library@darthmount.edu.

We are now updating the information for the ICMA Membership Directory. If you have not yet returned your additions or corrections, please do so as soon as possible. An afterthought for the directory is to also add member's URLs. If you want your Home Page address listed in the 1996 directory please send the information to ICMA at icma@sjsuvm1.sjsu.edu. Also note that the new membership form (back page) contains a checkbox for gender. We are doing much better with women's membership and have been requested to track the exact numbers where possible.

A couple new ICMA projects are in the works. First, at the suggestion from Mark Sullivan at Michigan State University, we have embarked on the production of the ICMA Educational Resources Archive. This will be a collection of pedagogic resources for computer and electro-acoustic music. This will include course syllabi, reading and listening lists, special scores, software listing, patches, etc.— anything related to education in computer/electronic music that can be posted on a web site. Please see page 6 for a detailed announcement. A recent flurry of ICMA net-chat was directed at the rather cloaked history of the Music Computation Conference, Computer Music Conference, Computer Music Association, International Computer Music Association and International Computer Music Conference!! James Beauchamp's article on page 19 clarifies the sequence of activities. Furthermore these chats have

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generated an interest in writing an official history of the organizations and the conferences. This is still in the discussion stages and we will keep you informed.

Finally, The Minnesota Composers' Forum [MCF] is an international composer service organization of 750 composers, 150 ensembles and 200 associate members from 44 countries. As part of their annual membership drive the MCF is offering all ICMA members substantial discounts for new members. There are some interesting complimentary benefits for ICMA member so please see the announcement on the back page.

Allen Strange, President
ICMA

From the Editors:

This represents the last *ARRAY* that we (Robert Rowe and Brad Garton) will be co-editing. We have held the editor's post for three years now, and it is time to move on to someone with a different viewpoint. Katharine Norman will be the new *ARRAY* editor, and we certainly wish her much success. We aren't too worried—Katharine is an extraordinarily capable individual and a wise choice for *ARRAY* editor.

We have thoroughly enjoyed the chance to work on the newsletter, as well as participate in the ICMA Board activities. Our parting words of advice are a bit clichéd, but it shouldn't diminish their import: GET INVOLVED! Now more than ever, the ICMA is facing decisions that will have profound effects upon the future of the Association. Even the newsletter will be involved with choices concerning electronic distribution, what particular topics should be focussed upon, how to better serve the ICMA membership. Make your opinions known! Use *ARRAY* as your forum—the newsletter can be as strong and or as weak as you would like it to be.

Probably the most fun with *ARRAY* has been the chance to make contact with many others working in computer music. Please stay in touch, and look for us at future ICMCs!

Brad Garton and Robert Rowe

Announcements

NEWS FROM SOUTH AMERICA

by Ricardo Dal Farra, Estudio de Musica Electroacustica.

II Symposium of Computer Music - BRAZIL

From July 29 to August 1, 1995 the "2nd. Brazilian Symposium on Computer Music" was held in Canela, Brazil.

Some of the many works presented at the symposium were: *Interactive composition using Markov chains and boundary functions* by Jonatas Manzolini and Adolfo Maia; *The necessity of composing with live-electronics* by Javier Garavaglia; *Do som do tempo ao tempo do som* by Flo Menezes; *Chaosynth: um sistema que utiliza um automato celular para sintetizar particulas sonicas* by Eduardo Reck Miranda (chairman of the Symposium); *Sinapsis: a self generating system of musical discourses* by Eleazar Garzon; *Sintese sonora com harmonicos escorregadios* by Jorge Antunes; *Categorical grammar and harmonic analysis* by Flavio Soares Correa da Silva and Fabio Kon; *PadMaster: an improvisation environment for real time performance* by Fernando Lopez Lezcano; *Theoretical outline of a hybrid musical system* by Damian Keller and Conrado Silva; *Transformacoes sonoras atraves de operacoes timbrais* by Jose Eduardo Fornari and Furio Damiani; *MaxAnnealing: A tool for algorithmic composition based on simulated annealing* by Fernando Iazzetta and Fabio Kon; *Wavelets as a multiresolution analysis and synthesis technique for sound timbres* by Regis Rossi Alves Faria and Joao Antonio Zuffo; *A neural model to segment musical pieces* by Otavio Augusto Salgado Carpinteiro; *O zig-zag conceitual no estudio de composicao* by Rodolfo Caesar.

Most of the latinamerican composers and researchers that travel to Canela for the Symposium came from other regions of Brazil or from Argentina. But there were invited researchers and composers from

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outside Latinamerica too: Stephen Travis Pope, Gerald Eckert, Richard Moore, Marc Leman, Rick Taube, Chris Chafe, Gary Scavone, Ralf Ollertz, Robert Willey, Hans Tutschku, and Ko Umezaki.

During the symposium there were also workshops by Aluizio Arcela and Rick Taube. And a round table discussion about computer music and education at Brazil's universities, with Frederico Richter, Jamarly Oliveira, Raimundo Martins, Jorge Antunes, Conrado Silva, Aluizio Arcela and Mauricio Alvares Loureiro, among others.

And every night, of course, a concert (or two). Some of the pieces presented were: *Tongues of Fire* by Trevor Wishart, *Figuras Flamencas* by Mario Verandi, *Olive Trees* by Eduardo Reck Miranda, *Free Motion* by Chris Chafe, *Noites* by Victor Lazzarini, *Agenda pour un petite futur* by Jorge Antunes; *Piece of Mind* by Celso Aguiar, *Eclipsis* by Vanderlei Lucentini, *Saudades de Ouro Preto* by Robert Willey, *Apaev* by Silvio Ferraz, *Arte Poetica (I)* by Javier Garavaglia, *Dirdir* by Gianantonio Patella, *Set In* by Martin Fumarola, *Memory Lane* by Lelio Camilleri, *A Parable of Pre-Existing Conditions* by Elizabeth Hinkle-Turner, *La Anfisbena* by Jorge Sad, *Quadrilatero* by Jonatas Manzolini, *IncurSIONES en el AREM* by Francisco Kropfl, *In Sich Ohne Ausweg* by Gerald Eckert, *lcartas/rs95.car* by Aluizio Arcela, *Umformung* by Igor Lintz Maues, *Pyrocua* by Ralf Ollertz, *Brownian Motion* by Michael Edwards, *Nemietoia* by Rodolfo Caesar, *Gestures, Tactile and Tethered* by Ko Umezaki, and *Mel18* by Ricardo Dal Farra.

The proceedings of the symposium are available from:
Universidade Federal do Rio Grande do Sul
Instituto de Informatica - Setor de Eventos
Caixa Postal 15064
91501 Porto Alegre RS - BRAZIL

Concerts - ARGENTINA

During the last months there were many electroacoustic and computer music activities on Buenos Aires city, Argentina. Chris

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Chafe, Gary Scavone and Fernando Lopez Lezcano (from CCRMA) were presenting concerts at Centro Cultural Recoleta during last August.

On August 19, the cultural center of Pestalozzi's School organized a concert with works by Argentinean composers: Daniel Miraglia, Miguel Calzon, Teodoro Cromberg, Carlos Cerana, and Ricardo Dal Farra were presenting tape pieces. The event was coordinated by the composer Claudio Alsuyet.

Bass clarinet player Harry Sparnaay (from Holland) performed mixed pieces at Foro Gandhi on September 18 during the international festival *Encuentros '95: Pastiche!* by Simon Burgers (from Holland), and *Sparkle* by Takayuki Rai (from Japan).

A few days later, on September 22, Sofia Asuncion Claro performed a concert for harp at the Instituto Goethe of Buenos Aires, including two mixed pieces: *Transparences* by Takayuki Rai, and *Music for Harp & Tape* by Cort Lippe (from U.S.A.).

Videomusica III - ARGENTINA

"Videomusica III", an exhibition of videos with performances of contemporary music and demos of experimental digital musical instruments was presented on September 14 at the Instituto Manuel Dorrego of Buenos Aires. The videos projected included: *Caxionics*, by Ileana Perez and Neil Leonard III, performed by Neil Leonard on tenor sax and a digital interactive system; *Shadows*, by Richard Boulanger, performed by Richard Boulanger on Boie Radio Drum, and Janos Negyesy on Mathews's electronic violin; *Herzgewachse*, by Arnold Schoenberg, performed by Maureen Tiernay-Chowning on voice and Boie Radio Drum; *Panoply*, a short piece by William Walker; excerpts from live multimedia and electronic performances by Joseph Celli, Ron Kuivila, Nicolas Collins, Phill Niblock, The Hub (Chris Brown, John Bischoff, Mark Trayle, Tim Perkins, Scott Gresham-Lancaster, Phill Stone); a fractal multimedia show; and several topics from the ICMA Video Review No.1, presented

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Announcements, cont.

by Hugh Lusted and Ben Knapp, Paul McAvinney, and Chris Chafe. The event was organized by Ricardo Dal Farra.

Computer Music Workshop - URUGUAY

Riccardo Bianchini, from the Conservatory "Santa Cecilia" of Rome, Italy, taught a computer music workshop at the Escuela Universitaria de Musica of Montevideo, Uruguay, from October 16 to November 30. The course included topics on digital audio, sound synthesis and computers on musical composition. On the practical side, the emphasis was on experimentation with Csound. For more information, contact Antonio Mastrogiovanni or Pablo Sotuyo at Escuela Universitaria de Musica, fax: (598-2) 90 72 04.

Electroacoustic Music Concert - VENEZUELA

On Sunday October 29, 1995, a concert of electroacoustic music using live electronics was held at the auditorium of Asociacion Cultural Humboldt/Goethe Institut. The event was named *Virtual Reality or Impotence* and included *La piel de Petare* by Adrian Suarez Perez, *Doble operativo* by Fidel Rodriguez Legendre, *Oh ... Impotencia* by Jacky Schreiber, and *MPCSSCVEV {Imp-loro}* by Rodrigo Segnini-Sequera.

"XI National Week of Electroacoustic Music" - ARGENTINA

From October 23 to 27, 1995, was held the "XI National Week of Electroacoustic Music and Medias" in Buenos Aires, Argentina. More than 30 Argentinian composers were presenting electroacoustic and computer music during the event. Some of the pieces programmed were: *Asimetrías* by Daniel Miraglia, *I* by Antonio Moliterni, *Fantasma del alma* by Jorge Villar, *Evocaciones* by Jorge Rapp, *Los viajes de Gulliver* by Javier Leichman, *El peregrinar de la araña* by Martin Fumarola, *Rugosidades*

del inconsciente colectivo by Enrique Belloc, *Un oído en el desierto* by Raul Minsburg, *Genus II* by Juan Carlos Figueiras, *Knock-knock, anybody there?* by Fernando Lopez Lezcano, *Far out* by Marcelo Cosentino and Andres Figueroa, *Lugares* by Ricardo Perez Miro, *Escenarios diferentes* by Edgardo Martinez, *Así hablan mis campanas* by Ofelia Carranza, *Allycs o un cuento lejano* by Gabriel Valverde, *Vox II* by Jorge Sad, *Poesis* by Eduardo Tejeda, *Juegos en el aurea* by Marisol Gentile, *El tamaño del mundo* by Miguel Calzon, *El pajarero* by Francisco Kropfl, *Electrocana*s by Diego Losa and Carlos Cerana, *Fuegos cruzados* by Patricia Rabbiosi, *Un decodificador sin lentes* by Christian Dergarabedian, *Intramuros II* by Daniel Schachter, *Seras ...* by Luis Caruana, *Entropogel* by Ricardo Nillni, and *Homotecia* by Ricardo Dal Farra.

News reported by Ricardo Dal Farra
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Azcuena 2764
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ARGENTINA
Telephone: (54-1) 553-3015
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ELECTROMUSICA DE ARTE (Chile)

At the beginning of 1995 the first CD containing electroacoustic music from Chile was released: "ELECTROMUSICA DE ARTE". The CD features pieces of historical importance, such as *Los Peces* (1957) by Juan Amenabar, as well as very recent works of both established and young composers.

Chile is the first Latinamerican country in which an electroacoustic music concert was held: the piece *Variaciones Espectrales* (1958) by Jose Vicente Asuar was premiered in 1959 at the Antonio Varas Theatre in Santiago, the capital city of the country. *Los Peces* (1957) is the first electroacoustic work produced in Chile. Composers Jose Vicente Asuar and Juan Amenabar are the pioneers of electroacous-

tic music in Chile. In 1969 Jose Vicente Asuar was commissioned to create a career in sound technology and in 1974 he launched his own studio called COMDASUAR. In the same year Juan Amenabar coordinated the recording studio at the Universidad de Chile. Apart from that, other activities were carried out in the "Taller Experimental del Sonido" belonging to the Catholic University of Santiago. In 1991 Juan Amenabar created the GEMA (Gabinete de Electroacustica para la Musica de Arte), where three of pieces on the CD were produced. Nowadays the Facultad de Artes belonging to the Universidad de Chile is the only place where electroacoustic music is taught.

The content of the CD is the following:

1. *Astillas de bambu* (1989-94), for flute and tape, by Jorge Martinez Ulloa. It uses a program written in the C language for algorithmic composition techniques. This work was mostly produced at the Computational Center of the Florence Conservatory (Italy) while the final mixing was done in Santiago.
2. *Los Peces* (1957), by Juan Amenabar
3. *OIREB-A* (1994), by Ernesto Holman Grossi
4. *Metalmambo* (1994), for flute and tape, by Eduardo C. Ceres
5. *Nilnovisubsole* (1994), by Fernando 8. *Ludus Vocalis* (1973), Juan Amenabar
9. *Cygnus* (1994), by Cristi n Morales Ossio
10. *Fiesta* (1989), by Rolando Cori Traverso. It was produced in the Elektronische Studio von Musik Hochschule in Freiburg (Germany).
11. *NVD* (1994), for flute and tape, by Mario Mora

The list price of the CD is \$16.00 (without postage). It can be ordered from:

SVR Producciones
San Juan 4967
Santiago
CHILE
Phone and fax: +56 2 5524181

CDCM

Consortium to Distribute Computer Music
is pleased to announce the upcoming release of
Volume 21 of the CDCM Computer Music Series
on Centaur Compact Discs

The Composer in the Computer Age—V: The ICMA Commission Awards - 1992-93

works by C. Lippe, I. Mowitz, T.Rai, and H. Vaggione

ALSO FORTHCOMING:

V. 22 A Salvatore Martirano Retrospective

CDCM recent compact disc releases include:

- V. 20 The University of Texas Electronic Music Studios. Works by Pinkston, Nagel, Korte, Fredrics, Wingate, and Schulz
- V. 19 The Composer in the Computer Age—IV: A Larry Austin Retrospective.
- V. 18 The Composer in the Computer Age- III. Works by Lansky, Strange, McTee, Dodge, Floyd.
- V. 17 The Center for Contemporary Music at Mills. Works by Brown, Curran, Payne, Erbe, Bischoff.
- V. 16 The Composer in the Computer Age-II. Works by Austin, Matthews, Lippe, DeLisa, Chatham, Waschka.

Subscribe to the CDCM Series! Special prices for ICMA members :

Volumes 17-22 \$90 (\$85.50 for ICMA members)

Volumes 11-16 \$90 (\$85.50 for ICMA members)

Volumes 1-10 \$150 (\$142.50 for ICMA members)

CDCM P.O. Box 560102 Dallas, TX 75356-0102, USA Telephone: 817-591-8128

There is also more material referring to the Chilean electroacoustic music but in cassette. The titles are the following:

"Jose Vicente Asuar, compositor chileno"
"Juan Amenabar, compositor chileno"
"Gabriel Brncic, compositor chileno Vol I"
"Gabriel Brncic, compositor chileno Vol II"

LIVE-ELECTRONICS IN CARACAS (Venezuela)

On October 29, 1995 a concert of electroacoustic and computer music was held in the auditorium of the Goethe Institut in Caracas, the capital city of Venezuela, under the title of *Realidad Virtual e Impotencia*. Its main organizer was the composer Rodrigo

Segnini Sequera. All works presented were composed in 1995.

Above all, it was a concert of live electronics exploring the idea of virtual reality from both an acoustic and visual point of view. Previously, two essays concerning the theme of the concert had been launched: *Live-Electronics, Realidad Virtual o Impotencia* by Rodrigo Segnini-Sequera and *Realidad virtual y sobremodernidad: estrategias para salir de la postmodernidad* by Fidel Rodriguez Legendre.

The programme of the concert is the following:

La piel de Petare for actress, tape and electronic processes, by Adrian Suarez Perez.

Doble operativo for vibraphone and video tape, by Fidel Rodriguez Legendre.

Oh...Impotencia for tape and live performer, by Jacky Schreiber.

MPCSSCVEV \{Imp-loro\} for computer, synthesizer, sampler, wind controller and live performer based in acoustic situations of Caracas, by Rodrigo Segnini-Sequera. This work was defined by the composer as "portable music".

Reported by:
Martin Alejandro Fumarola
Email: maralefo@turing.fis.uncor.edu

Announcements, cont.

The ICMA EduArchive

The International Computer Music Association is planning an electronic archive of educational materials related to computer music. The purpose of the archive, termed ICMA-EduArchive is to:

- Assist computer music educators in curriculum development.
- Provide an electronic venue via the WWW that assists people in understanding and appreciating computer music as an art form.
- Create a dynamic repository that reflects the changing nature of computer music as an art form.

The ICMA-EduArchive is being coordinated by Mark Sullivan (Michigan State University) in consultation with the ICMA Publications Coordinator, Mary Simoni (University of Michigan-Ann Arbor). Links to the current ICMA WWW site will be established by Robert Newcomb (University of Michigan-Ann Arbor).

ICMA-EduArchive will include course materials such as bibliographies, discographies, syllabi and tutorials. Additionally, ICMA-EduArchive will feature a wide array of hypermedia that enhances the understanding and appreciation of computer music including text, soundfiles, photographs, graphics and video. The inclusion of down-loadable articles on a wide range of issues in computer music is being considered.

The ICMA would like to invite your contributions and/or comments on which materials should be included in ICMA-EduArchive. Please send a description of recommended materials to:

Prof. Mark Sullivan
Coordinator of the ICMA-EduArchive
Computer Music Studios
Michigan State University
P.O. Box 6548
E. Lansing, MI 48826
e-mail: sullivan@pilot.msu.edu

The description of a recommended contribution should indicate the following:

Your name (sponsor)
Author/Composer/Educator name
Title
Subject
Your surface mail address
Your e-mail address
Type of media and its current format(s)
Keywords
Length/duration or file size

For text, does an HTML format already exist? If not, does author/composer/educator or sponsor want to place in HTML format?

Although contributions and recommendations will be appreciated at any time, we'd like to receive initial recommendations by December 15, 1995. If you have further questions or comments, please e-mail Prof. Mark Sullivan at:
sullivan@pilot.msu.edu.

Good day to you all.

I usually try to make contacts and do this on a one-to-one basis, but seeing Ricardo Dal Farra's recent posting has finally spurred me to mass action. I, too, host a weekly radio program on the Madison, WI Pacifica affiliate (ah...we're the WNYC/KPFA here. How's that?) called RTQE [an acronym for the Oblique Strategy "Remember Those Quiet Evenings"], which runs every Sunday evening from 9:00 to 11:00 PM on WORT-FM, 89.9. It begins a huge block of 20th century programming which lasts until dawn on Monday; I just get to program for non-nightowls.

As I've done for years, RTQE programs great, steaming earfulls of electroacoustic work as a part of a late 20th century gumbo. WORT-FM is *always* interested in new works for broadcasting. I'm particularly interested in electroacoustic works of all kinds - on the lookouts for both regular play and special programs. Soon, there'll be a station web page where you can peruse the playlists. Until then, you can find the weekly program listings (along with the BBC's

"Mixing It" and David Mandl's wonderful program on WFMU) posted to rec.music.misc, where *it belongs*; The timid, incredulous, suspicious, curious, or those who don't know what a kind and charming man I am [ahem] should look there.

I do appear and make the rounds at the ICMCs that I'm able to attend, the result of which is the occasional 2-hour single composer electroacoustic extravaganza. One of them is going to be on next week's program, in fact: an interview with Trevor Wishart which will include the *entire* VOX cycle introduced by Trevor himself *and* all of *Tongues of Fire*. Over the 9 or 10 years (yikes!) I've been on the air, it's safe to say that computer and electroacoustic music has been a mainstay of the RTQE program turn away once they saw the razor wire enclosing the "High Culture" preserve. My experience thus far has been that people actually *respond* to the possibility of 2 hours of mysterious stuff they don't know and might like. However, I realize there are computer music people out there who find the notion of subverting category in search of an audience deeply offensive ("So you're just another PoMo wanker," to quote one of 'em.); it seems that, in deference to their hard work and deeply held convictions, I ought not solicit their work for use in a context they'd never agree with.

However, if that *doesn't* particularly offend you, you're welcome - nay, *invited* to submit work for broadcast. You can reach me by e-mail at

gtaylor@msn.fullfeed.com

And at the station via the usual snail mail:

WORT-FM
118 South Bedford Street
Madison, WI 53703

Thanks for your time. I look forward to hearing from you, and may your works all be worthy of the silence which precedes them and the silence which is to come.

With regards,
Gregory Taylor

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Amnon Wolman: Computer Composition, Digital Sound Synthesis

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Composing With Computers-Wolman

Advanced Computer Composition-Wolman

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Computers, Technology and the Music Experience-Webster

Selected Topics in Music Technology

Advanced Projects in Music Technology

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Music Perception-Kendall

Music Cognition-Richard Ashley

Composition-Composition Faculty

For information, contact:

Gary Kendall

Phone: (708) 491-3178

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Reviews

[NOTE: As readers of ARRAY have noticed, we have tried new approaches to reviewing the ICMC in the past few ARRAYs. This year is also an experiment, an experiment hopefully designed to get more people involved in ARRAY and in forming a body of commentary about the ICMC. Rather than tap several individuals to cover the entire conference, or to designate particular people to review specific aspects of the conference, one person wrote a highly-subjective and somewhat polemical review of the 1995 ICMC. Our goal is to provoke some reaction from the ICMA members who attended the 1995 ICMC, and begin a dialogue about the ICMC and issues arising from it.]

Review of the 1995 International Computer Music Conference

Brad Garton

What follows are my views and impressions of the 1995 ICMC. I make no pretense at being comprehensive, my aim is to goad people who disagree with what I say or who know about concerts and papers I may have missed to contribute to the next ARRAY in an on-going "review" of the ICMC. So please don't take the following as any sort of authoritarian "word" on the conference, because it isn't. If you find yourself in agreement with anything I said, or find your blood pressure rising a few notches, crank up the word-processors and respond!

The Papers

For me, this ICMC was one of the most technologically-informative that I have attended in recent years. Perhaps it was the particular set of papers and posters I was able to see, or perhaps it was because we are this year reconfiguring the Columbia computer music studios, but I came away from this ICMC with an abundance of pointers to new tools and techniques. Plus I saw some fairly snazzy interfaces and algorithms being demonstrated.

Among the more fascinating papers and demos I managed to catch (and this is by no means comprehensive — I had to miss a substantial portion of the presentations):

Physical Modelling

Much work now seems to be focussing on the semi-chaotic processes that drive the "standard" physical model algorithms. In particular, the work being done to model the physical characteristics of input streams (jets) at IRCAM by Verge, Causse and Hirschberg and the modelling of vortex noise by Chris Chafe are yielding good results. Xavier Rodet's modelling of lip movement for brass models is also chasing after the concept of finer-grained understanding and control of physical model input.

In addition to this work, I was also struck by the general "filling-out" of the physical model/nonlinear synthesis paradigm. Ranging from an architecture for model control (Perry Cook) to a look at the output stages of a particular physical model (Berners, Smith) and including several papers revisiting the Karplus-Strong algorithm (Stilson; Trautmann), it seems that we are becoming much more sophisticated in our approach to synthesis-by-model. I would even classify J. P. Mackenzie's use of chaos theory to model nonlinear dynamical systems by constructing an underlying attractor and Michael Gogin's facile use of Gabor systems to synthesize arbitrary sounds as instances of this "filling-out". Perhaps we have entered Kuhn's stage of 'normal' science with respect to the physical-modelling paradigm. I'm not complaining about this — the range of sounds now available to composers (like me!) from these extended models is quite exciting. Of course, I hope that these new algorithms are freely shared instead of languishing in some research lab until some semi-adventurous manufacturer creates an overpriced piece of hardware implementing the models several years from now. But of course I *would* hope for this, as I am one who stands to benefit from this sharing. (What can I give in return? Oh, I don't know — some patches of music, maybe a few beers or dinner in New York,

some conversation about the state of music in the world....)

Spectral Mutation

Another category of sound creation that I found most intriguing is the warping of a sound or melding of one sound spectrum with another through applications such as *Lemur* (Haken, Fitz and Holloway) and *SoundHack* (Polansky and Erbe). Not only were the algorithms for accomplishing this impressive as new techniques, but the speed with which the results are obtained was truly amazing. The demos I saw were done on relatively inexpensive Macintosh hardware, with many of the sounds being produced at or close to real time. As a composer who is becoming increasingly impatient as I get older, these developments make me very happy indeed. Plus both of these programs are freely and publicly available (yay team!).

Interfaces

On-going research in interface development can be roughly divided into several categories: input interfaces (compositional), output interfaces (performance), and multimedia work. With respect to the input interface, or systems designed to facilitate sound production, I again got the sense that little in the way of revolutionary work was happening. Please don't take this as a negative criticism, for it is great to see the ways in which some of the standard compositional interface paradigms are being enhanced. Input interfaces are being extended through graphical hooks into algorithmic compositional processes, such as the *Capella* environment created by Taube and Kunze. Daniel Oppenheim's "musical morphing" capabilities he has instantiated through DMIX is another case of an extended input interface — in fact, the evolution of DMIX is almost a case-study in the refinement of a compositional interface. Brett Terry's *ScoreViews* represented the latest in a series of unit-generator GUI instrument building interfaces. Of course I was impressed by the research being done by Robin Bargar and his co-workers at the NCSA facility in Illinois. Their linking of

interesting ways of representing sonic characteristics with interactive interface devices has been coalescing into an environment for sound creation and performance that is darned fun to use. I like fun.

On the output/performance side, the work with *SynthBuilder* done by the Stanford crowd makes me grieve all the more for the decline of NextStep. Seeing a *SynthBuilder* patch realizing the Sullivan version of the Karplus-String algorithm while being controlled by a MIDI guitar is fairly amazing.

I was also impressed with several of the unique performance systems I saw. Russel Pinkston's MIDI dance floor has become a sophisticated control device. In the hands of a capable composer like Russ, the system is capable of generating performances of great beauty and power. I was extremely fortunate to catch (along with only four or five others) one of the last posters of the conference — an interactive performance system designed by Shu Matsuda from the Kunitachi College of Music. Matsuda's system worked by defining virtual shapes or lines in a continuously-digitized video image. Performers can then interact with these defined icons with almost magical results. I really hope to see some of these systems being used on future ICMC concert programs.

There were several demonstrations integrating computer music work with other modalities. The NCSA group's work I mentioned earlier is certainly an instance of this. Mara Helmuth's *FCurve* collabora-

tion with Aladin Ibrahim of the Texas A&M computer graphics lab in visualizing granular synthesis sounds is another. I also thoroughly enjoyed Perry Cook's "Drive-by Fluting" video, depicting a "fantastic voyage" scenario in which we all got to fly through a physical model of a flute.

Studio Reports

More and more, I am coming to enjoy the studio reports more than any other papers at the ICMC. Perhaps it is because they give me a sense of an integrated approach to research and composition in a conference where many of the papers appear to float in isolation, or maybe I enjoy hearing how others have solved practical problems, or perhaps it is because many of the studio reports tend to take liberties with the presentation context that aren't deemed appropriate (too bad!) for the standard paper sessions. Whatever the reason, this year was no exception. Hearing about how Brian Evans at Vanderbilt University built a vibrant community with rather severe funding constraints, or hearing how Joran Rudi's adroit solutions to Norwegian political exigencies built the impressive NoTAM network gave me a set of ideas to take home with me. I was also quite taken with the expansive education/sound-delivery projects being done by Celia Duffy and Stephen Arnold at the University of Glasgow. I enjoyed Christopher Dobrian's description of student projects (especially the one who chaffered listeners to his piece around in his car — the piece being designed for mobile listening), and of the

research being done at LaTrobe University by David Hirst and his crew (real-time CMIX on PowerPC Macintoshes!). And of course, Nando Lezcano's CCRMA reports are always worth the price of admission.

Miscellaneous Computer Stuff

One of the 'traditional' categories of computer music research that at first seemed lacking at this ICMC was "AI" approaches to research questions in composition and perception. After attending a few of the paper sessions, however, this apparent lack of AI work is explained by the diffusion of the whole AI project into related areas. Most of these are rather "low-level" compared to the lofty strong-AI claims of the past decade, but in their pragmatism they are yielding good results. For example, Andrew Horner and Lydia Ayer's use of genetic algorithms to generate harmonic progressions produced better results than I have seen before from an automated harmony system. Many other researchers are taking an almost "signal-processing" approach to solving problems of music perception and representation, including Desain and Honing's modelling of vibrato and Guerino Mazzola or Hudek and Berger's approach to modelling performance. I had to miss the session on neural network modelling, but again what is striking about the whole neural-net enterprise is the low-level, bottom-up approach, especially as contrasted with the global AI models of the past. I was somewhat surprised at the lack of genetic algorithm or a-life papers at this ICMC. Given the recent interest in the

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workings of these low-level computer modelling procedures in other domains, I was expecting more work in the computer music community.

I also noted some continuing development of computer-music languages, including newer languages with powerful grammars and those rooted in computer programming such as C++ (Kai Lassfolk from the University of Finland, in particular). One trend that did make me happy is the number of sound analysis systems that used files generated from applications such as *Lemur* and *SoundHack*. I think the use of these ad-hoc "standards" is terrific, including the continued use of music languages such as CMIX and CSOUND. Why? For one thing, the whole NeXT experience taught many of us the joy of being able to share work, with no porting involved, among our colleagues. By employing common data and sound-representation formats, it makes the transfer of computer music knowledge much easier... especially for those of us on the receiving end!

Culture

I was very pleased to see an increase in the number of papers accepted addressing cultural issues in our music. Insook Choi and Sever Tepei's respective papers are fun to read, and they certainly provide a much-needed sense of context for the work we do. I got a real kick out of Harley and Couroux' semi-multimedia presentation on *The Residents*, but that may be due to the fact that I was a big fan of *The Residents* back in the days when it seemed to matter. Dominique Richard's paper with the lisp-like title "Computer Music and the Pre(Anti(Post(Non(Modern))))" was quite enjoyable, although in many of these papers I find myself feeling that familiar sense of academic vertigo. What is the point of all of this? What is the point of the latest signal-processing physical-modelling top-down genetic algorithmic compositional performance interface? What is the point of asking what the point of this work is? I don't know... we exist, and I guess we gotta do something.

Related to these cultural papers is an issue
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that was probably one of the hottest topics under discussion at the 1995 ICMC: gender issues. Several cogent papers were presented, including eye-opening results from Andra McCartney's survey of female electroacoustic composers, and recommendations for change from Mary Simoni. The fact is that we have an incredibly small amount of female involvement in our field. A lively panel discussion, moderated by Simoni, began to address this anomaly [see related article in this issue of ARRAY]. By beginning to acknowledge problems we have and by mapping solutions to these problems, we can hopefully create a more welcoming environment for potential computer music practitioners — including but not limited to females — that are seeing our community as being a closed and insular group.

There were several papers and paper sessions that I had to miss, but had wanted to see. In particular, I heard that Gary Kendall's spatialization demonstrations were truly representative of the state-of-the-art, and several people commented that some of the papers on real-time granular synthesis (there were a number of these) described systems that were quite powerful. I also had to miss the UCSD studio report, a place that seems to have a lot going for it these days.

I also missed hearing papers describing the compositional process involved in doing computer music, and papers relating particular compositional techniques with the imagined output: an aesthetic discourse from the perspective of the producer. I missed these papers not because I had a conflict with a particular paper session, but because they were not in evidence at this ICMC. I see this as a bad trend. Recent ICMCs have tended to reinscribe the line between "composers" and "researchers" in our field, and I fear that the sharpening of the distinction between the two will do a disservice to both the research and the music. My hope is that we can regain the fluidity that has existed between categories of Composer, Researcher, Performer and Listener, because I believe that an individual who is fully informed in all areas of the computer music

world is more capable of producing the synergistic work that has defined our community in the past.

One final comment on the papers, somewhat related to the trend of growing insularity: I heard many papers that pretended to exist with no "history" — papers that covered research done before, or papers that were closely related to other work — with little or no attribution to this pre-existing or related work. I don't know how best to address this problem, and I suspect that often the non-attribution was the result of benign ignorance rather than malicious appropriation, but I think this is a growing problem at the ICMC. My best advice to authors is to do at least a semblance of a literature search before submitting papers, and to acknowledge others who have endeavoured in the same area. This can only strengthen our field.

The Music

I heard a lot of muttering about the "quality" of the music on the concerts, and I'm sorry to say that I agree with the sentiments behind the complaints. I'm unwilling to locate my dissatisfaction within some notion of "quality", however. What bothered me was the monochromaticism of the musical aesthetic that seemed in force at the 1995 ICMC. Many of the pieces were finely-crafted and showed a high degree of musical and technical skill, but the vast majority surely represented a rather narrowly-defined compositional universe. This has become a perennial complaint of mine — that the ICMC seems to be constricting the definition of "computer music" instead of expanding it. Perhaps there truly is a One True Computer Music that exists, and we are closing in upon this quality stuff. I really doubt it, for I hear a much wider range of possible computer music every day. I really wish that the ICMC (and hence the ICMA) would become known for nurturing musical diversity, and not for closing out those who aren't doing REAL computer music. Several people I spoke with about the ICMC95 concerts voiced the opinion that what we were hearing is an artifact of the statistical process through which pieces are selected. Whatever the reason, I think it is important for all of us, and especially future ICMC organizers, to be affirmative in promoting diverse computer musics. Heck, I'll be downright "politi-

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cally correct”: if there is to be an ICMC ‘sound’, I sincerely hope that it is the sound of multiple and engaging musical cultures. (NOTE: I’m using the term “culture” here in the broadest possible sense, meaning diverse diverse musical styles as well as separate human cultural groups).

Given all this, I actually did enjoy a number of the ICMC95 pieces. Stephen Montague’s *String Quartet #1* was one of the finest pieces I’ve heard at an ICMC. The professional caliber of the Penderecki Quartet, the subtle integration of the tape part, and the facile orchestration of the quartet made for a moving musical experience. I was also quite taken with Mark Wingate’s *Ode to the South-Facing Form* (the piece that proved there were subwoofers). This tape-only piece had a compellingly evocative sound, weaving the chanting of Buddhist monks and some marvelous synthetic timbres into an expansive sonic narrative. *Swansongs* by Heinrich Taube was also a beautiful moment. Rick explained that for technical reasons only the middle movement of his three-movement cello+tape piece was to be presented. What we heard was a slowly-unfolding and elegant exploration of tiny melodic and timbral fragments. I found it to be an experience of quietude and relaxation that I rarely have in a concert; especially an ICMC concert. I was also amazed at the wheelchair choreography by Charlene Curtiss for Geoffrey Wright’s dynamic *Instrument of Balance and Grace*. It was indeed.

Allen Strange’s wife Patricia put forth a terrific performance in his *Shaman: Sisters of Dreamtime*. I had never heard Pat play before, but I knew that I was a fan of Allen’s music. I wasn’t disappointed in this virtuosic piece. Speaking of virtuosity, hearing Joan LaBarbara perform is almost a guarantee of a musical peak, no matter what the music. Fortunately, the music of John C. Nelson’s *They Wash Their Ambassadors in Citrus and Fennel* was strong enough to support LaBarbara’s talent. John has a finely-tuned sensibility, and it worked well with LaBarbara’s immense singing capability. Mari Kimura delivered a similar virtuosic performance in her own *Gemini*. As she works more and more with computer technology, Mari is able to achieve a grace in her performance that is nearly unrivalled. In this case, her performance was occasionally limited by the ability of her sound-processing gear to switch from one *ICMA ARRAY V15, N3*

patch to the next. I would very much like to hear a studio version of this piece, in which some of the abrupt transitions could be smoothed over. I was also impressed by the soprano performance of Laura Joachim Fredrics in *Vagvisa For Mitt Ofodda Barn* by Howard Fredrics. I began the piece with my typical “oh god, another soprano+tape monstrosity” mindset, but was pleasantly surprised by the warmth of Howard’s writing and the humanity of Laura Fredrics’ performance. Arthur Kampela’s *Textorias* explored a virtuosity of a different kind, using the computer to expand an already virtuosic, pre-recorded guitar performance. The result sounded as if some incredibly frantic but highly talented flamenco performer was given a guitar filled with electricity. Great fun!

There were several pieces that surprised me. I’m used to Horatio Vaggione’s music being filled with a dynamism that sort of reaches out and grabs me by the throat. *Schall* seemed a much more quiet, introspective piece. Conversely, Nicolay Apollyon’s *CellOrganics* was radically different than the slowly-moving minute timbral explorations I have heard from him in the past. I also found myself listening to Cort Lippe’s *Music for ISPW and Flute* in a manner atypical from the way I normally approach Cort’s music. Generally I’m totally blown away by the sheer technological *stuff* that happens in his pieces; for example, I truly enjoyed watching Cort, Zack Settel, and Rick Bassett man the ISPW machines during Cort’s ICMA commission performance in Tokyo two years ago. In this piece, however, I found myself attending much more to the structure of the music as well as some of the subtleties of the timbral processing. Whether this is by design, or whether I just happened to be in one of those moods that day, I don’t know. In any case, I really enjoyed the music. Maybe I’m just getting old.

I liked Fernando Lopez-Lezcano’s *Espresso Machine II* (featuring Fernando and Chris Chafe in live performance), but I’d be willing to bet that this wasn’t one of their better performances. I also wish that Nando had remained less hidden on the stage (somehow there was a giant hunk of equipment between where I was sitting and where he was performing). Part of my pleasure in seeing “alternative controller” pieces stems from seeing how the devices work, and how the composer has implemented a particular

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interactive strategy. I missed this in the ICMC performance of “Espresso Machine II”. I also had no clue what was going on with the aXi0 controller in David Eagle’s... *heaven over heaven rose the night*. His presentation of the controller was one of the papers I missed. I’m not sure it would have helped me or not.

There were three pieces that I’m still confused about. The improvisation ensemble “Fleabotics” presented a lengthy multimedia/performance exploration that reminded me a lot of some of the early, downtown “A Mica Bunker” performances (John Zorn, Fred Frith, Doug Henderson, etc.). This music always seems a lot more fun to do than to watch, but I really enjoyed being a spectator to parts of the Fleabotics show. At the same time, I really hated other parts of the performance. I usually don’t have such diametrically-opposed reactions to a single “piece”. Odd.

I was also not sure how to parse Larry Austin’s *Variations... beyond Pierrot*. I usually either really like or really dislike Austin’s music, but this one left me bewildered. I was impressed with the level of attention to performance detail by Austin in the piece, but at the same time it hit me as a performance from a culture that I did not or could not understand. After the concert, I told Larry that I didn’t know what to think of this piece. I still don’t.

The final ICMC performance was by Sound Traffic Control, the reinforcement company that competently handled the demands of the ICMC concerts. I remained outside the concert hall for this longish piece, however, as I had been warned that sound pressure levels in the hall were going to be pushed towards the EXTREMELY LOUD side. Too bad, because I think I would have enjoyed what they did. What I heard through the walls seemed somewhat intriguing.

I had to miss several concerts, and heard from a variety of people about some of the pieces. Reactions to Barry Truax’ performance work *Powers of Two* were fairly evenly divided between loved-it/hated-it. I wish I could have seen it, because something that provokes this sort of response is at the very least going to be interesting. I’ve also been a fan of Truax’ past work. I also heard from many people I respect that Michael Alcorn’s *The Old Woman of Beare* and Joran Rudi’s multimedia presentation

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of *When Timbre Comes Apart* were quite good. I hope I get a chance to see them again someday. I was also looking forward to the mega-performance of David Jaffe and Andrew Schloss's *Wildlife*, which had to be cancelled because of a lack of technical resources. Darn.

I did manage to spend a few quiet moments in the Listening Room. I really wish that ICMC organizers would set up more time for participants to enjoy this sort of space. At Banff, the Listening Room was situated to provide a stunning vista through floor-to-ceiling windows surrounding half of the entire space. Hearing Mara Helmuth's *Chimeplay* while watching the clouds rise above the mountains behind Banff was one of the most spectacular moments of the conference for me. I only saw two or three other people in the Listening Room during the conference. Those who didn't manage to get to the Listening Room missed a great experience.

By far the funnest music at the conference were the installations. Carla Scaletti's ICMC commission piece *Public Organ* was one of the snazziest computer music 'pieces' I've encountered. Part of the problem of our medium is the ephemeral nature of the music we do, especially non-standard performances like Scaletti's. I really hope that some mechanism for preserving, replaying, or re-performing this work can be found — it struck me as an activity that almost exists outside time, to be encountered in many different arenas. How can we facilitate this? How can we allow greater numbers of people to explore the richness of computer music represented by this work, and by the *Ear Harp* sound sculpture designed by Kazuo Uehara? I urge all of us to see this as one of the central questions facing the ICMC and ICMA.

Final Comments

I can't end this review without mentioning the impact that the setting for the 1995 ICMC had on me. Banff is simply gorgeous, and some of the best "musical moments" I had at the 1995 ICMC were up in

the mountains of the surrounding Canadian National Park. It was sad to hear of the financial troubles besetting the Banff Center, for that part of the world is certainly special, and it seems that the "specialness" should help activities there rise above the mundane and fickle vagaries of social and political life. It doesn't — oh well.

In thinking about the Banff ICMC, it did feel like part of an unfolding ICMC process. I have commented in the past about ICMCs no longer being centered around One Big New Thing, and (as I noted earlier) this impression holds true for the 1995 ICMC. It seems that the interstices between various One Big Things are beginning to be filled in. Perhaps we are fulfilling the Kuhnian prophesy of "normal" science. If we are, I can't help but feel a little sad, for I hoped that our particular field would be one of constant revolution. However, I can say that I don't mind the subtlety and variety of work arising from the "fleshing out" of extant research.

And I must say that despite rumblings about financial troubles at the Banff Centre (none of which seemed to affect the 1995 ICMC too terribly, although it really would have been nice to hear "Wildlife") and taking my semi-polemic rantings about the closing of the computer music aesthetic with the appropriate grains of salt, I really enjoyed this year's ICMC. The chance to see old friends and be totally immersed in the wild world of computer music is always a terrific way to spend a week. I am looking forward to the Hong Kong ICMC in 1996.

Five Compositions for Musicians & Live-electronics under DSP MAX

A major concern of the composers at the Hiller Computer Music Studios at the University of Buffalo is that pieces for musicians and live-electronics should offer a rich platform for interaction between musician and machine. Analysis and tracking of a performance can produce musically relevant information which can then be used to influence aspects of an electronic score,

such as to create perceptual coherence between instruments and electronics, or to endow synthetic sound structures with human expressiveness.

The reviewed compositions demonstrate a number of possible relations between live performers and real-time computing. For each piece, individual computing algorithms have been devised in DSP MAX. A detailed discussion of these algorithms is beyond the scope of this review, but I will be able to list the most important software tools for each piece.

The algorithms are now running on NeXT computers enhanced with Ircam Signal Processing boards (ISPWs). The five compositions were scheduled during two consecutive evening concerts of contemporary music repertory in Slee Hall at the University of Buffalo. (April 17 and 19, 1995)

Cello Duet & Live-electronics

(Max's 24 hours) *Prat-O-mat* (Jonathan Golove)

Two cellists, diagonally facing the public, occupy the left and the right side of the stage. A third performer, invisible in the middle of the scene... the ISPW.

The piece is a set of variations based on a theme by Josquin which is projected through four different scales.

The introduction consists of a quiet, scalar rise in microtonal steps, eventually dissolving into an incoherent, disparate structure of melody fragments: disintegration. The first section is followed by series of sweeping glissandos, the cello color being subjected to real-time computer transformations. At this point a dramatic chord cloud reminiscent of Ligeti's micro-polyphonic structures forms a dramatic climax.

Less effective seemed to me the remotely imitative, fugal episodes. In another part, the plucked notes of cello 2 influenced the sustained notes of cello 1. Again, I feel that this idea would have deserved a more thorough exploration.

Then, a sublime kaleidoscopic timbral exposition degenerated into grumbling and increasingly distorted, noisy harmonics. In the last section rhythmic swellings flooded

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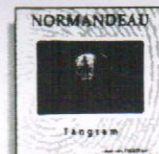
Préludes à la vie
 Le prisonnier
 du son (1972-91)
 24 préludes à
 la vie (1989-91)
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Polyphonie-polychrome
 Lune noire (1987-89)
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 Le vertige inconnu (1993)
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 Nous sommes heureux de...
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 Là où vont les nuages...
 (1990-91)
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Tangram
 Bédé (1990)
 Éclats de voix (1991)
 Spleen (1993)
 Tropes (1991)
 Tangram (1992)
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 [2 for 1]



L'ivresse de la vitesse
 L'ivresse de la vitesse (1992-93)
 Physics of Seduction.
 Invocation #1 (1991);
 #2 (1991); #3 (1992)
 Dancing on the Walls of Jericho
 (1990)
 Beyond the Walls of Jericho
 (1991-92)
 In a Bed Where the Moon was
 Sweating. Resonance #1 (1993)
 Revenge of the Repressed.
 Resonance #2 (1993)
 Veils (1984-85)
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 [2 for 1]

2 buzzing worlds



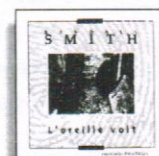
Tropos atropos
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Ichneumon crassorius
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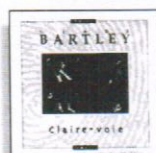


L'oreille voit
 La volière (1994)
 The Black Museum (1993)
 Ruptures (1991)
 Counterblast (1990)
 The Face of the Waters
 (1988)
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Alchimie
 Tilt (1986)
 Cristaux liquides
 (1990)
 Qu'est-ce concert?
 (1987)
 Le voyageur (1993)
 Piano forte (1985)
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Claire-voix
 Ellipsis (1989-93)
 Rising Tides of
 Generations Lost
 (1985-93)
 Ocean of Ages
 Revealed (1991)
 IceBreak (1992)
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Vande Gorne+Lambersy
Le ginkgo (1994)
Architecture nuit
 (1988)
Noces noires
 (1986)
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Kristoff K Roll
Corazón Road (1993)
 Danse de Corazón Road
 Aquí en Yucatán
 Entre deux hamacs
 Belize City
 Sieste musicale
 Guatemala
 La Pacifique
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Amore
 L'Amore: préambule
 T'es le fun téléphone
 Love You
 Olé-Léa-Léo
 Interlude
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 Requiem (1973)
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Reviews, Cont.

the soundscape. The piece ends in a series of microtonal plucked sounds, disappearing in the ether like butterflies on a sunny afternoon.

Technical Tools

Pitch material is organized in four special series, which are based on 1/4 tone, 1/2 tone, 1/2 tone Fibonacci and overtone sequence. Tracking of: pitch, spectral weight, noise content, ratio of even and odd harmonics, vibrato width and extreme changes in amplitude envelope, to recognize staccato playing, sul tasto, sul ponticello, pizzicato, etc. Frequency shifting. Harmonizer. Use of several delay lines. Exploring the master/slave relation: the articulation of the master cello is affecting the slave cello's sound in various ways.

Clarinet & Live-electronics

=====

Music for Clarinet & ISPW (Cort Lippe)

Clarinet notes and computer-transformed events form an inextricable network of sound narrative, whose phrases are identified by the sameness of their expressive gestural content: the mimesis of a sigh and a scream, a weep and a cry. No unified melodic, harmonic or rhythmic shapes... rather the cathartic rhythms and fluid forms of emotional outbreak. The phrases share a common temporal lay-out:

{accelerando → accumulation →
deccelerando → silence}

.

Pitch structures predominantly dwell in the extreme register, both low and high, and there is a clear tendency towards chromatic and even microtonal articulation; this is

enhanced by frequent use of glissandi, varying in size and speed. The real-time timbral transformations are used to create inharmonic soundfields, acting like magnified memories or dream-like explorations of the clarinet's timbre. The interactions taking place between electronics and clarinet are complex and multi-faceted. Their effects are all the more alienating as the sounds grow more distant from the clarinet template. Dissonance and the avoidance of any sort of regularity or repetition lead me to characterize this music as an artistic derivate of free jazz.

Technical Tools

Frequency shifting, harmonizer, noise modulation, sampling (granular and time-stretching), score following, pitch tracking, amplitude following, and articulation detection.

Flute & Live-electronics

=====

Study for: Serpiente y Junco (Erik Ona)

The linear shape of the flute was re-created by the stage setting: an imaginary diagonal line connected the flutist in the right rear with one speaker in the center and another speaker in the left front of the performance space. The study explored a variety of extended flute playing techniques, such as key-clicking and multiphonics. As of the proposed music, we heard the ephemeral sounds of a digitally improvising Pan, drawing sketches of pastoral loneliness, longing and loving. Focussing on sound effects and colors in a pointillistic manner, this piece forms a contemporary contribution to musical impressionism. In the program notes of this evening the composer stated that the 'etude for Serpiente y Junco' reflects the

structure of the meanings of a short poem:

Fennel, serpent and rushes.
Aroma, trace and twilight.
Air, earth and loneliness.
(The scale reaches the moon.)
Lorca, Theories

Technical Tools

Three different types of sampling engines (10, 8 and 6 units), picking up parts of the whispered poem and replaying them in different rhythmic relationships. Pitch tracking. Envelope following. 3 nested Karplus-Strong based variable-speed delay lines. Convolution of multiphonics with key-clicks. Harmonization.

Voice & Live-electronics

=====

Study (Barry Moon)

This piece was performed by a solo singer. However, short noises of human origin, produced by the mischievous ISPW, delayed the beginning of the music. The singer waited. Patiently. But the noises only accumulated and got louder. So, finally she angrily interrupted the digital intruders with an authoritative: "Sssshh!" Silence.

This playful introduction exposed the two antagonists responsible for the musical tension in the composition as it unfolded: on one hand an anarchistic pleasure in the creation of sounds and noises and on the other hand a strong love of traditions, embodied, in this particular case, by Elizabethan England.

(And now) my tongue's use is to me no
more
Than an unstringed viol or a harp
Or like a cunning instrument cased up
Or being open, put into his hands
That knows no touch to tune the harmony
Shakespeare, Richard II

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Part of the sung text, the poem's loss and complaint are accurately represented in the general mood conveyed by the composition as a whole. Ancient harmonies and melodic fragments are scattered through the music like a few amateurishly plucked notes on a divine instrument, played amidst of complete chaos and ignorance. Multiple layers of sampled phonetic fragments created musical structures of traumatic dimensions. These were then tied back to (mother) earth by the memories of a singing woman: if she sang, she was sad; if she screamed, she was angry. The only drawback in the piece was a sudden break in the musical structure, occurring after two thirds of the composition. Here, the fine evolution was disturbed by an all too free, improvisatory excursion into extended vocal techniques.

Technical Tools

Pitch tracker, score following, delay as harmonizer, real-time sampling, special sample looping techniques: sixty 600 msec, pre-recorded phonetic segments were pieced together to produce segments of the poem. Use of prime number series to generate poly-rhythms.

Saxophone & Live-electronics

=====

Afterimages No.1 (Ron Parks)

This piece perhaps showed the clearest division between the computer and human performer parts and it was very convincing in its lyrical quality. The saxophone part mostly consisted of coherent melodic phrases and included a fair amount of repetition.

The computer part, built on sampled saxophone multiphonics, used granular synthesis techniques to create huge sound masses or pointillistic background screens. Switching between all-powerful and evanescent at the extremes of expression, the computer part added as it were different dimensionalities to the lyrical quality of the saxophone melodies. These were strange psychological quantities like gravitational slide, obscure memory, distant reflection and rash emotions. Perhaps due to insufficient rehearsal opportunities, the saxophonist at times even seemed overwhelmed by the strength of character exhibited by its digital partner. This merely added a perverse edge to the pleasure of the audience.

ICMA ARRAY V15, N3

Technical Tools

Granular synthesis and sampling using normal distribution. Sampled saxophone material. FM Synthesis. Poly-rhythms in computer part.

Reviewed by John-Philipp Gather

Report: ICMC'95 Roundtable on Gender Issues in Computer Music

Mary Simoni

One thing that is certain, the ICMC is known for ground-breaking scholarly and artistic work in computer music. Issues of aestheticism, philosophy, and criticism have emerged as a viable and oftentimes hotly-debated component of the conference. But ICMC'95 and the ICMA Board of Directors took an unprecedented step forward by fostering discussion on such issues as the fractionalization of the electro-acoustic community, the regionalization of the ICMA, and gender issues in computer music. This article summarizes a Roundtable on Gender Issues in Computer Music that was convened during ICMC'95. With less than 24 hours advance notice, over thirty women and men representing several countries devoted their time to freely express both individual and institutional perspectives on issues of gender. The following article summarizes the comments, questions and concerns expressed by roundtable participants.

Socialization

The life-long process known as socialization is critical to the development of identity. Each person's socialization process is as uniquely distinct as their personality. However, cultural values impart norms to the process of socialization. One participant noted that men seem to be socialized to play with computers. Another participant commented on the pervasive expectation that women assume a nurturing role. The expectation of a nurturing female is oftentimes confounded when gender role expectations are projected based on personal experience- perhaps based on an individual's relationship with their parents or as parents themselves.

Winter 1995

Social networks and mentoring relationships are key components of defining and achieving success. Oftentimes, role models serve as our mentors. But who are the role models in computer music for women? Laurie Spiegel? Pauline Oliveros? Why don't they attend ICMCs? Or are we witnessing a generation without role models? There exists a greater likelihood that younger women will have role models as we see increased participation by women.

It is difficult for women to network effectively due to their small numbers and their geographical isolation. Some women have reported a physical and emotional reaction as a result of their isolation. Quite often, minority groups that do not have access to adequate support structures will be disadvantaged. As a member of a minority, the majority oftentimes expects a member of the minority to represent all members of the minority group. For women, such an expectation serves to constantly reinforce gender differences which may negatively affect self esteem.

Whether the phenomenon be termed affirmative action, positive discrimination, or reverse discrimination, some women and men disagree with the practice of differential judgment by sex. These participants stated that it is important, however, to foster an increased awareness and sensitivity to social and cultural issues including those related to gender.

Education

Many participants expressed hope in changing the gender balance through the educational process. Some innovative programs at the high school level offered by Cal Arts and the Silicon Valley Youth Conservatory serve to foster participation by females. In the United Kingdom, training is offered in composition in the early years, but a significant drop in participation is observed during the adolescent years. Simon Fraser University has developed successful strategies for the retention of females that may serve as a model to other institutions of higher education. Some participants noted that females are typically better students than males- regularly scoring in the top 25% of their class. In the United States, "The National Standards for the Arts" stipulates training in music technology as a required component of the K-12 curriculum.

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lum. Undoubtedly, the inclusion of music technology in the pre-college curriculum may increase the likelihood of a gender-balanced applicant pool for undergraduate admissions. Educators must develop techniques that create a supportive yet challenging work environment for female students.

Access and Participation

Not all women gain access nor have the financial resources to keep current with technology. In fact, a very small percentage, primarily those with academic affiliations, can afford to work with state-of-the-art technologies or attend the ICMC. This year saw an unprecedented number of female conferees, yet still less than 5% of the total delegation. What does the uneven distribution by sex indicate? Does the under-representation by females in faculty positions manifest itself in under-representation at the ICMC? Or does under-representation indicate that women are content with past technologies? Have women been socialized away from new technologies? To what extent does socialization play a role in the way that women and men understand and create music? Do women prefer the tactile interaction offered by analog synthesizers? Can we say that low tech analog techniques are associated with women and if so, does that association present a manifestation of a feminist aesthetic?

Aesthetics

On the topic of aesthetics, one participant noted that the prevailing aesthetic in computer music is decidedly male-dominated. One participant candidly remarked that the Signal-to-Noise ratio of music by females is much greater than that of males. There is some concern that it is difficult to advance a feminist aesthetic within the context of the ICMC because it is difficult to achieve gender-balanced international juries. It may be that an historical study of feminist musicology within a cultural context may assist in the emergence of a feminist framework in computer music. One should be

careful, warned one participant, that marginalization may occur during the process of categorizing the music of any group of people be they black, white, gay, or female.

Next Steps

There seemed to be unanimous interest in further discussion on this issue. Members of the group identified several vehicles for further communication including the mailgroup of the ICMA (icma@umich.edu), the Array, and the Computer Music Journal. As an organization, we should create forums to continue the discussion on both regional and international levels allowing for differences in cultural norms.

Clearly, diversity in scholarship and artistic expression enriches our lives and our work. As one participant put it, as the International Computer Music Association, we should be, by definition, a multicultural organization.

The digital reality... there is safety in numbers.

I first heard of the ICMC through the Canadian composers magazine "Words and Music", and it being made of paper and ink, having no wires or transducers, was not able to give any indication as to what I would be in for at the conference. I tried asking professional musicians I know and sales people at the music store I frequent what this "electroacoustic" music is. They thought it was the latest label for "new age" music or some kind of easy listening meditation background musak. Fools, those silly fools, how could they not know? Why didn't I know? After all I've been exploring my own electromuse for the past few years but I thought I was alone.

Recently I split with the two members of my trio over the issue of this Computer Music. Having a studio, I wanted to explore the digital playground while they, being without computers, would have none of it.

Where's a guy to go? Like a Dorothy on the golden trail I followed the rising sun to Banff, Alberta (it being east of me of course). What I would find in that little town in the mountains I didn't know, but it just might be what I really needed.

I've never met so many people with fire in their eyes. Everyone had some pearl that they were polishing, working on, or getting ready. This wasn't a meeting of the latest things but of things to come. The bringing together of those who fashion the tools with those who build the music was mind opening for me. I met the people behind the tube I gaze zombie like into day after day. I had a peek into what it's like to conceive the playgrounds that I wish to play in.

What a hopeful experience it was to be among you. It almost sounds like I had some religious awakening but you know, it did come close. There was a night at one of the concerts when I found myself thinking "there's no more important place to be on the face of the earth than right here, right now." I felt as though someone had taken a bread knife and cleaned out my ears. Why hadn't I heard like this before? What have I been listening to all these years?

Sound Traffic Control and the various people at the helm were inspiring as were all the performers. It was great to meet people who are working on similar things in related fields. To know I'm not alone in my endeavors. Somewhere there are others I can share with and learn from. I came to the conference not knowing where I was going but after being exposed to all the possibilities of performer artist, multi media, video interactive, internet real time, virtual music, submersive conscious, midi triggered, dancer sensitive systems, I came home with a new uncharted outlook.

It's a great time to be alive and the future is looking even brighter. What a special group of people I found in Banff.

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Visit the ICMA home page:

<http://coos.dartmouth.edu/~rsn/icma/icma.html>

The History of the ICMA

Some Notes on the History of ICMA, ICMC, and How to Count Anniversaries

Recently there was a discussion on icma@umich.edu about how the ICMC's and the ICMA organization began and about when a "25th Anniversary" should be held. As Marc Battier said, the first discussions about forming the organization took place at the 1978 ICMC at Northwestern University, and the organization was founded in 1980, when the first Newsletter was issued and the name of the organization, Computer Music Association, became official.

It is interesting to note that with the first Newsletter in January, 1980 (edited by Thom Blum, who was also the organization's first president), the name of the organization was declared to be "International Computer Music Association". However, this turned out to be premature. In February, 1980 the State of California turned down our name request since it had a "deceptive similarity" to International Music Associates, Inc., and that company would not consent to our use of the word "International". In April, 1980 we were formally given permission to use the name Computer Music Association. It wasn't until much later, June, 1991 that the State of California approved our use of "International" at beginning of our organization's name, as announced by Larry Austin, pres. in the Summer, 1991 Array.

An "Organizing Committee of C.M.A." was announced in the May, 1980 Newsletter as consisting of Bo Alphonse, Marc Battier, James Beauchamp, Thomas Blum (Co-director, Newsletter Coordinator),

Donald Byrd, James Dashow, Beverly Grigsby, Dorothy Gross, Hubert S. Howe, Jr., Gary Kendall, Curtis Roads (Co-director), and John Strawn. However, the same newsletter announced that the first meeting of Board of Directors had taken place on March 1, 1980 and that temporary officers of the organization were Thomas Blum (pres), Curtis Roads (v. pres), and John Strawn (sec/treas).

Each month the Newsletter listed the new members and the organization grew by leaps and bounds to approximately 150 members by January, 1981. Also, in October 1980 the CMA Board of Directors election took place, and this Board consisted of Marc Battier, James Beauchamp, Thomas Blum (pres., co-founder), Donald Byrd, James Dashow (v. pres), Dorothy Gross (sec), Hubert S. Howe, Jr., Curtis Roads (co-founder), John Snell, and John Strawn (treas, co-founder). Most of these people are still active and can answer any questions about the history of ICMA that anyone might want to pose.

The history of the ICMC is somewhat longer than that of the CMA/ICMA, and its early history is somewhat complex and affects how we should count ICMC's for anniversary purposes. Initially, it was just a matter of the few people (between 50 and 100) people interested in computer music (mostly in the U.S.) getting together once a year to talk about the latest technological solutions and hear the latest music. The first of these "get-togethers" was in 1974 and was arranged by David Wessel at Michigan State University (now at U. C. at Berkeley). It was held for two days in early December, and I remember that a snow storm pre-

vented several people (including John Chowning) from attending the conference. Even so, some 40 people were able to attend. From our anniversary-figuring perspective, an interesting thing about that conference was its title. At that time it was not called "ICMC", it was called: Music Computation Conference I (1974, Mich. State Univ.)

This was followed by Music Computation Conference II at the Univ. of Illinois at Urbana-Champaign held in early November, 1975. (The weather was beautiful!) However, the next conference was billed as the "The First International Computer Music Conference", which was held in fall, 1976 at M.I.T, Cambridge, Mass. That conference was held in conjunction with the first U.S. meeting of the International Society for Contemporary Music conference, which helped amplify the attendance. This computer music conference was the first to be billed "international" and to have a substantial international attendance. However, a number of us were not comfortable with the term "first" being attached to the title, for the following reasons: 1) Using "first", "second", etc., meant that the significances of the first two conferences would be completely overshadowed. (Would they be called "minus one" and "zero"?) 2) There was no doubt that the 1974 Michigan State conference was the seminal conference of this series and that the 1976 conference was a continuation of the first two conferences. 3) There was no intention that the first two conferences should be limited to U.S. attendance. In fact, I remember one French-authored paper given at the 1975 conference for which we provided an interpreter. The compromise worked out was that the

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next conference, given in 1977 at U. C. San Diego, would be billed as the "1977 International Computer Music Conference" and that use of the year in front of ICMC thereafter became the official way to title ICMC's. In fact, the 1974 and 1975 conferences have been referred to retroactively as the "1974 ICMC" and "1975 ICMC" in various pieces of ICMA literature, so as to not neglect the importance of these conferences.

So, we have two ways of counting the ICMC meetings. Assuming that the 1974 meeting was the first, we can tabulate

1974 1st meeting (Michigan State University)
(there was no meeting in 1979, as noted by Peter Castine)
1984 10th meeting (Eastman)
1994 20th meeting (Montreal)
1999 25th meeting ???

The 25th meeting would return to Michi-

gan, although not quite in the same place. On the other hand, if we were to start with 1976, the 25th meeting wouldn't occur until 2001. However, there seems to be an urge to have the ICMC's "25th Anniversary" occur in the year 2000, and unfortunately neither solution accomplishes that.

Originally, the meeting for "1979" was to have been in Paris, but it fell through. I put 1979 in quotes, because it was proposed to be a spring rather than fall meeting (at IRCAM), and I think that it was to occur in the spring of 1980. That would still have meant no meeting in 1979. But it's a moot point because the meeting never happened.

I have to give my wife credit for pointing out the difference between counting meeting numbers and counting meeting anniversaries. That is to say, the second meeting of a series would normally occur on the first anniversary of series. By that reasoning 1999 would be the 25th meeting and the 24th anniversary, or would it be? Would the

skipped year also subtract from an anniversary count, or would it really be the 25th anniversary? Peter Castine pointed out that skipped meetings have nothing to do with anniversaries. What we are talking about is the 25th Anniversary of the First Meeting—the inception of the ICMC's. This again would be the year 1999.

However, there are some people who would like the anniversary to occur in the year 2000. Note that if we say that 1976 was the first ICMC, 2001 would be the year of the 25th meeting and the 25th ICMC anniversary. Logic straddles the year 2000. To solve this controversy, we could declare the years 1999 to 2001 as the "ICMC 25th Meeting/Anniversary Years". That way the year 2000 would be included!

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Judgement Day

Judgement Day

Brad Garton

Three items during the past several months:

Item 1 — Mara Helmuth sent me the following e-mail:

"What are means of evaluating the work of a computer music composer? Since traditional performance situations are often less available or sometimes even inappropriate, how can one justify what one does? Obviously, publishing recordings and articles etc., looks good. But it seems difficult to measure something as amorphous as people's interest in your work. I don't see the traditional measures of a composer as really appropriate for my work (commissions for some performing group, performances by big orchestras, and quantity of music written). I'm certainly willing to disseminate my music (I'd like to be on CD) but it's clearly not the whole story."

Item 2 — Perry Cook was offered (and has accepted) a position at Princeton University. The appointment is unique for
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Princeton, as it spans several departments (partly in Computer Science, partly in Music). As I understand it, the folks at Stanford University investigated various counter-offer schemes involving joint appointments with other Stanford Departments. Couple that with the fact that people like Julius Smith and Max Mathews are appointed in Music, with Julius having a courtesy appointment in Electrical Engineering at Stanford, there is clear evidence of bridging standard departmental boundaries.

Item 3 — I am coming up for review this year at Columbia University. While beginning to gather materials for my review, one of our senior faculty said that they weren't quite sure what criteria to use for my evaluation, it being obvious that my skills didn't quite fit the traditional music faculty model.

And indeed these three items point out what is obvious to many of us — that we as computer musicians inhabit a multi-faceted, cross-disciplinary academic niche. To do our work we draw upon a diverse array of capabilities, simultaneously scientific

and artistic. We can't be easily categorized.

People still persist in attempts to pigeonhole us according to archaic classification schemes, however. Categorical perception of one form or another seems deeply ingrained in the human cognitive apparatus. The ramifications of this aren't so pleasant either. I'll bet each of us has heard at least one of the following criticisms:

Those are nice sounds, but it's not Real Music.

Interesting research, but it's not really Computer Science/Engineering/Physics/ [fill in your favorite "objective" discipline here].

Actually, it's not even Real Research.

(or my personal favorite:)

Person X is No Composer!

In a rather esoteric field this is almost to be expected from those on the "outside". What

confronted with something new or unexplained, people map it onto their existing experience. Understanding is grounded upon a set of categories learned through living. What bothers me (besides the obvious negativity and close-mindedness of these particular reactions) is that I hear many of the above criticisms originating from inside our small world of academic computer music. In fact, our insular peer-bashing has become so much a part of our community that I now often hear the full-circle inverse comment: "that isn't REAL Computer Music".

Of course, being inside a particular field or being a member of a certain scientific/artistic community doesn't stop us from being human. Besides being rooted in our innate desire to classify the world, many of the snide comments are by-products of our individual aesthetic judgements. We hear — we judge; we are professionally trained to discern, to ascertain the best. The fruit of this aesthetic labor surrounds us. The impulse to judge underlies much of our public computer music activity, from the acceptance or rejection of works by various conference panels and the implicit hierarchy of concert venues to the more explicit discussions such as the recent "Good vs. Bad Electroacoustic Music" series of letters in the *Computer Music Journal* and the plethora of competitions open to those of us producing new music.

So we embrace our humanity, we affirm our individual tastes and desires. I know what I like (and I know what I dislike!). The problem is that we don't stop at the individual level. We think ourselves universal: the only model I have for other people is myself, so naturally everyone thinks and feels as I do. It seems that most people certainly believe in an objective, positivist world. Look at The Facts marshalled to support Newt Gingrich's "social programs" here in the United States, or the silly *Bell Curve* approach to measuring intelligence/economic viability, or the hard *scientific* DNA evidence used to get at The Truth in the O. J. Simpson theater of the absurd. In every sphere of endeavor our goal is to nail down a solid, immutable reality, to define a common metric that can be used to define and indeed to judge.

Is this a problem? To some extent it has to be true that people have certain perceptual similarities, otherwise most of our social
ICMA ARRAY V15, N3

and nearly all of our research activities would be impossible. But this species-similarity doesn't necessarily spill into the aesthetic realm. I am constantly surprised by what others hear as "good" and by the diverse array of sounds that disparate peoples count as valuable music. There are probably at least as many reasons for this state of affairs as there are sociocultural theories, but I bet much of it has to do with the infinite fluidity of musical sound. Being non-functional in a real physical sense (music doesn't have to support the weight of trucks over a river) frees music from adhering to physically-constrained forms. This gives us the ability to create and define *for ourselves* how we want our music to go.

In the past, despite the politically-shaped concerts and conferences, I have truly enjoyed the wide range of musics encountered in the world of computer music. As our field matures, however, I sense that this aesthetic openness is beginning to close down. Perhaps as we further define our particular little society, we choose to gravitate towards a specific style of music to act as *our* cultural token. Whatever the reason, we are "settling in" with our music; we are creating a hegemony of sorts. We can now list what we consider the Great Works (and Workers!) of computer music.

Thus the tradition is set, and it sustains itself through our pedagogy. What we teach, how we teach it, the techniques we ask our students to master, and the musical models we hold as examples will exert a profound influence on the future evolution of our art and research. Unfortunately, the maturing of these methodologies all too often leads to a self-reinforcing edifice that ossifies creativity and stifles real innovation.

Obviously from my pejorative description I'm not thrilled by this potential eventuality. Why would anyone want to participate in the creation of this mausoleum of tradition? In his DMA defense at Columbia University last May, Sean Varah articulated one of the best reasons I've heard for desiring to work within an established tradition. He hopes to write for people with a common cultural background, using a shared musical language as a foundation for building an enhanced musical experience. But I can't help but wonder if it isn't possible to have our cultural cake and eat it, too.

I'd like to propose that we strive for a "common cultural background" for computer music that has a broad aesthetic ecumenicalism as one of its most outstanding features. Rather than fall into the Kuhnian oscillation of 'normal' paradigmatic output punctuated by periodic 'revolutions', we could work towards an alternative model where "the tradition" is in constant flux, where departures from the norm are not just tolerated but are actively encouraged in order to undermine any sense of "the norm" actually existing. I want to point out, however, that the hackneyed ad-agency phrase "a tradition of innovation" isn't exactly what I have in mind. I'm not promoting innovation for innovation's sake so much as I'm advocating innovation in order to preserve a rich diversity of musical expression. Just as the buzzword "biodiversity" is now used to mark an essential feature of a robust and healthy biological ecosystem, we should maintain a strong "musicodiversity" to maintain a growing and vital musical "ecosystem".

Is this just another worn-out "PC" plea for multiculturalism from an academic ideologue? Possibly, but in a dynamic musical culture, I would think that multiculturalism would be a real — not just political — positive attribute. Speaking from a selfish-composer perspective, a variegated, multicultural sonic landscape gives me easy access to more musical ideas. I find it is often much easier to steal than to create! From a somewhat loftier, more ideological perspective, I believe it is important to take action to preserve the diversity of extant musical traditions. We can do this by promoting diversity in our own ranks, by nurturing the seeds of difference. Employing the biological metaphor again, the musical rainforest is being flattened as communications media shrinks the world. What sounds will be lost in a homogenous, McDonaldland future? What ranges of human expression will be bulldozed to make way for the musical Disneyworld of tomorrow?

I also still hold the hope that music can change the world. We can show that it is possible for radically different world-views to coexist and actually be mutually enhanced because of this coexistence. Recent events in the small town where I live have shown me quite dramatically how much we need this perspective. The specific local issue isn't really relevant for my point here,

but suffice it to say that it was quite divisive, involving deeply-held beliefs about the world. I have always felt that dialogue was possible, even in the face of radically different viewpoints. Several town meetings rapidly convinced me that I was living in a fantasy world. Never have I encountered so much shared hatred in one room. I began to understand the reality of how past human atrocities could happen. The truly frightening aspect of the experience is that this collective antagonism occurred among people who shared a "common cultural background" — not among strangers, but

among friends. It was a glimpse of a terrible future.

A recent *New York Times* interview with anthropologist Clifford Geertz discussed how we all must now "confront the irreconcilable gap between 'Us' and 'Them' — in other words, what to do about people who can't see the plain truths that you do." Geertz commented that "People are going to have to stand for a lot of things they don't like." So it is in computer music. I'm not advocating that we give up our own individual preferences — judge for yourself

what you like and what you abhor. However, we must be willing to relax a little to enter into alternative worlds. In fact, we must do what we can to foster the creation of these alternative worlds, to make the broadening of perspective part of our computer music heritage. For better or for worse, the way that we do our music can demonstrate how we might exist. I hope we can use our artistic power to beat down the hatred of intolerance. As maudlin as this may sound, I really do want a better world for our kids.

On Identity and Fragmentation

On Identity and Fragmentation of the Ea/CM Community

A recent eMail exchange reflected upon the state of the ea/cm community. This article looks at some aspects of our current situation.

The precipitate for a blast of comments and humor from north and south america was the request for clarification as to whether a 'new' Stockhausen work had been canceled from an ISEA '95 concert. The flurry following the question, sparked by a comment from Jon Appleton, spoke volumes about our current condition.

There once was a time when computer musicians and electronic music composers were quite clearly identifiable as separate arms of the field of new music. We were often linked by the name 'avant-garde', a term now often used to refer to the new art of the 50s, 60s and 70s! The joke being that one person says, "I'm an avant-garde composer", with the reply, "Oh, you write that old stuff."

In the 70s and into the early 80s, there were two electronic music handbooks in north america, those of the above cited Jon Appleton (also of Synclavier fame — remember the NED Synclavier?), and Allen Strange. Students and practitioners of ea/cm knew and reacted to the words: analog, Bohor, Come Out, digital, EMS, FM, Gesang, Hymnen, I am Sitting in a Room, Kontakte, Le Caine, MOOG, Omaggio, psychoacoustics, Synthi AKS, tape re-

order, voltage control ... We had a common vocabulary and some commonality of experience (which however at the time we were not fully aware of).

In the 'Stockhausen exchange' in early September, almost all of the references predated 1975 (Sirius). A common thread until that time having been the works' availability on DG recordings. The international community, teachers and students drew from a common well-spring for examples and history. [Trivia question: In what years did Stockhausen, Xenakis, Babbitt, Reich and Berio win at Bourges?]

Today the nature of identity for community is not the same. ICMCs in the early 80s brought together like-minded individuals every year or two (because of geographical displacement), to discuss, explore, exchange, complain and listen. (Although complain often headed the list.)

We spoke of the need for faster and more wide-spread communications, the need for access to more works, more information on regional, national and international activities and opportunities. We had a clear problem which we set out to solve (along with many other people).

The communications issue was dissolved with the advent of desktop publishing — the 128k Mac removed a major physical barrier; desktop databases maintained 'permanent' and correctable lists; 1/4" tape was expensive but acceptable (even if the machines costs \$2,000 and up!); governments, universities and industry funded national

and international festivals because of the research and 'new directions' that came from them. Deficits were ignored.

National organizations came into existence, individuals fulfilled their desire to distribute their work un-impeded by the restrictions and limitations imposed by international record distribution systems. But were we going to be able to deal with the effects of these changes? How do we identify a 'soul-mate' who has not heard, or heard of Berio or Pierre Henry?

Today our national and international associations wrestle with the underlying issues of identity and function. The ea/cm community is not alone. The world-wide system of national 'Music Centers', which select and house the scores of their national composers, structurally vaporize. Their lifeblood functions being sapped out by university libraries and the WWW.

Do we need one, two or more international and national associations? An asian, african or american nation forms a national association. Does it become a member of ICMA, CIME, NICE ... ? all, none, or ... ? And why?

Do the international associations have 'standards' for admission? What are they? Can an individual be a 'member' of an international association? How do national associations and individuals benefit? Can a national association be affiliated with two, three or more international associations? Can a country have two national associations?

tions in the same international association?

These questions are the consequence of growth, metamorphosis and fragmentation. Fragmentation is a consequence of loosening commonalities which had helped in the focusing of identity.

Walls keep people out. Walls keep people in. The WWW, private CD production, eMail and diminishing government and industry funding all contribute to their disappearance.

The new modes of commonalities will likely be more closely related to processes than to objects. We identify with others who have undergone similar experiences; it is no longer necessary for the objects (icons) to be the same. The experience of collage-type work may be more important than knowing that 'plunderphonics' is the 80s extension of Hymnen. (Oops! back to Karlheinz again.)

[Being the draft from of this article, I will only sketch the middle and end sections, for subsequent expansion.]

Community, Identity and Fragmentation

Historically it has been believed that that a community needs to develop a 'group mind'. In William McDougall's 1921 book, 'The Group Mind', he outlines a number of stages for this development, which I have freely adapted to articulate the stages for the development of (a) community. Below I shall list some, with reference to national and international ea/cm associations, identity and fragmentation. (These elements are not necessarily sequential, and several may occur simultaneously.)

(1) Continuity of Existence and Development of Critical Mass If there aren't enough members or they cease to be, there can be no development, and no community.

(2) Internal Recognition
Members need to recognize each other. This does not necessitate liking or approving.

(3) Interaction
Members need to interact (ie communicate)

(4) External Recognition
The group needs to be recognized by other groups as existing

(5) Development of Traditions and Customs
This takes time, but has been done through conferences, festivals, newsletters, awards, recordings and now, publication.

(6) Differentiation/Specialization of Function
There was a time when we each individually did everything (or just about): made patch cords, organized concerts, promoted our activities etc. We now rely upon others inside and outside the community to provide some or all of these services.

Different national associations are at different places in this schema. Some countries have not developed a critical mass for community, and in some places, individuals deny recognition of other members: internal recognition is denied. This usually means that there is no (meaningful) interaction or communication. Without these preconditions, there will normally be no legitimate external recognition (although this is where politics plays a major role in negating this model).

[It has been posited that it is possible to note retarded development — as in some national and international organizations — where group identity and the primacy of the community are denied by the maintenance of a privileged 'politburo' mentality.]

Groups, individuals and communities are dynamic and as such continually readjust the balance between the various phases. The ea/cm community finds itself in a period of forced major readjustment. For many countries, and indeed internationally, basically, the six steps have been undertaken successfully!

Concrete examples include: (1) we are here and continue to increase in numbers, (2) we know each other's names and recognize activities, (3) CECDISCUSS, ICMA, OZ-COMPUTER-MUSIC, SONIC ARTS NETWORK, CIME ..., (4) the DX-7!!, (5) ICMC, Bourges, ISEA ..., (6) national and international archives, E-Music Foundation, concert organizations, CD publishers, representative national organizations etc.

While the external elements become firmer, the individual internal elements transform. International electronic communications systems blur the last 5 stages of this model. When the archival indexes from Berlin, CCRMA, Sonic Arts Network, EuCuE and others are merged (not that far away), and are available on the WWW, historical research will not belong to anyone. Information will be fluid; formalized divisions will have become semi-permeable membranes through HTML links.

While real-time sound (file) transfers are still hindered by commonly available technology, a >>perspective->> on this may be found in the answer to the question, Where was the WWW in 1989? The year 2001 is as close as 1989 — and all of the Stockhausen references pre-dated 1975.

A more complete version of this article will appear in the next year or so.

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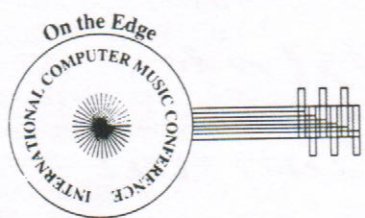
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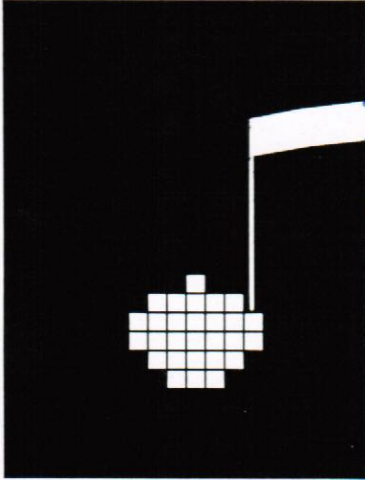
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