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New Members of the Computer Music Association

November, 1980  
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Beauchamp, James, Urbana, Illinois, USA  
Bruderer, Herbert E., Rorschach, SWITZERLAND  
Henninger, Richard, Toronto, Ontario, CANADA  
Fry, Christopher "Fry", Cambridge, Massachusetts, USA  
Howorth, D. J., Cambridge, ENGLAND  
Kendall, Gary, Evanston, Illinois, USA  
McMullen, Kathleen, San Francisco, California, USA  
Raynal, Charles, Brookline, Massachusetts, USA  
Rolnick, Neil B., Berkeley, California, USA  
Schneider, Florian, Dusseldorf, GERMANY  
Senn, Daniel, A.C.T., AUSTRALIA  
Shelif, Nima, Brookline, Massachusetts, USA

Organizing Committee of C.M.A., 1980

Alphonse, Bo, Quebec, CANADA  
Battier, Marc, Paris, FRANCE  
Beauchamp, James, Urbana, Illinois, USA  
Blum, Thomas, Berkeley, California, USA -codirector,  
newsletter editor, interim pres.  
Byrd, Donald, Bloomington, Indiana, USA  
Dashow, James, Padova, ITALY  
Grigsby, Beverly, Northridge, California, USA  
Gross, Dorothy, Minneapolis, Minnesota, USA  
Howe, Hubert S., New City, New York, USA  
Kendall, Gary, Evanston, Illinois, USA  
Roads, Curtis, Cambridge, Massachusetts, USA - codirector, interim vice-pres.  
Strawn, John, Stanford, California, USA - codirector, interim secretary-tres.

The Computer Music Association  
Vol 1, No 4 Newsletter  
November 1980

This issue marks the first anniversary of the Computer Music Association and with this newsletter we bring you an abundance of announcements, calls for papers, survey forms, and the results of the C.M.A. election for the 1981 Board of Directors.

This first year has been financially difficult as we have been filing for nonprofit corporate status (and a bank account). In the interim we have had to fund the organization out of the pockets of the founding directors. However, we acknowledge and appreciate your willingness to give the Association your support, and we have held onto all of the membership cheques sent, although none could be deposited or used; many are now expired. We apologize for any inconvenience caused you.

We look forward to receiving a favorable notice from the California Secretary of State within the next few weeks and trust that the output and services of C.M.A. will improve greatly once the official incorporation and flow of funds are established.

In the meantime, the staff at C.M.A. looks forward to meeting you at the 1980 International Computer Music Conference at Queens College. And, here's an open invitation to all our members and potential members to attend the C.M.A. membership meeting, Friday, Nov. 14, 1980, 4:00pm, Queens College Academic Building, Room 170.

See You There,  
*Thom Blum*  
Thom Blum  
C.M.A. Newsletter Editor

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Venice Biennial Issues Commissions  
\*\*\*\*\*

The Laboratorio dell'Informatica Musicale della Biennale di Venezia has commissioned Aldo Clementi, James Dashow, Hubert S. Howe, and Fausto Razzi for the first year's activity. The concert presenting the commissioned works will be October 2 in Venice as part of the Biennial's International Music Festival. The works will be (are being) realized at the Centro Sonologia Computazionale (The Computer Music Institute) of the University of Padova using the facilities of the University's Computer Center.

\*\*\*\*\*  
C.M.A. Election Results  
\*\*\*\*\*

The Computer Music Association is pleased to announce the members' choices for the 1981 C.M.A. Board of Directors. The following people have been elected to the Board and will begin to serve January 1, 1981 (contingent upon their final acceptance of the post at the 1980 annual meeting of the Board of Directors).

Marc Battier, Paris FRANCE	Dorothy Gross, Minneapolis, Minnesota, USA
James Beauchamp, Urbana, Illinois, USA	Hubert S. Howe, New York, New York, USA
Thomas Blum, Berkeley, California, USA	Curtis Roads, Cambridge, Massachusetts, USA
Donald Byrd, Bloomington, Indiana, USA	John Snell, Stanford, California, USA
James Dashow, Padova, ITALY	John Strawn, Stanford, California, USA

AMERICAN SOCIETY FOR  
INFORMATION SCIENCE

SPECIAL INTEREST GROUP  
ARTS AND HUMANITIES

CALL FOR PARTICIPATION IN  
"MUSIC AND INFORMATION SCIENCE"

A session sponsored by SIG/AM of ASIS for the Annual Meeting at Washington, D. C., October 1981. Reports which represent the state of the art as of Fall 1981 are invited.

AREAS OF COVERAGE AND POSSIBLE TOPICS

- CREATION OF MUSICAL ART  
Computer use in composition
- COMPUTERS AND TRANSMISSION OF MUSIC  
Mass communication and music; Broadcasting industry; Audio-recording industry; Music publishing ...
- DIRECT USE OF COMPUTERS FOR THE STUDY OF MUSIC AND SOUND  
Acoustical analysis; Stylistic analysis ...
- INDIRECT USE OF COMPUTERS FOR THE STUDY OF MUSIC  
Information systems; Data bases as research aids; General information for public; Universal bibliographic control: National and international projects and problems ...
- OTHER TOPICS  
Participants are encouraged to explore other aspects of "Music and Information Science."

If you are interested, please send notice of intent to participate, together with an informal, one-page proposal explaining your idea for a presentation, to Session Organizer or to SIG/AM Chairperson.

Mode of presentation and other details will be announced at a later time after the 1980 Annual Meeting in October. However, please indicate your preference: Paper, panel discussion, or other (specify).

Mail

Before August 31, 1980  
To Hiroko Mishimoto  
(Session Organizer)  
25 Beacon St. #5  
Somerville, MA 02143

After September 1, 1980  
To Margaret S. Jennings  
(SIG/AM Chairperson)  
6373 Barefoot Bay  
Columbia, MD 21045

Yes, I want to participate in SIG/AM Session on "Music and Information Science." I have attached a one-page proposal explaining my ideas for presentation.

I  am /  am not an ASIS member.

NAME \_\_\_\_\_

BUSINESS AFFILIATION \_\_\_\_\_

MAILING ADDRESS \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

City \_\_\_\_\_ Tel. \_\_\_\_\_

APPROPRIATE TITLE \_\_\_\_\_

REPLY TO: SIG/AM OF ASIS

International Gaudeamus Music Week 1981

The International Gaudeamus Music Week will take place from the 5th to the 13th of September, 1981.

Composers who would like their works performed during this festival are invited to submit scores and/or tapes in the following categories:

1. ELECTRONIC WORKS with or without a live performer. Tapes sent to the selection committee must be 2-track, 19 c/s, on a reel.
2. VOCAL QUARTET
3. GUITAR TRIO
4. ENSEMBLE including electronics, flute, clarinet, piano, horn, trombone, violin, viola, cello, and double-bass in any combination.
5. CHAMBER ORCHESTRA possibly with taped sound accompaniment
6. ORGAN
7. ACCORDION
8. ENSEMBLE including flute, oboe, clarinet/bass clarinet, bassoon, horn, trombone, percussion, piano, 1st violin, 2nd violin, viola, cello, double bass, and an extra instrument from this choice (minimum four instruments).

Composers born after 1 January 1946 may participate. Entries, which must be sent under a pseudonym, will be accepted until 31 January 1981. The works entered may not have been performed, and if they are selected they may not be performed before 13 September 1981.

For more detailed information on this or other Gaudeamus events, contact the Gaudeamus Foundation, P. O. Box 30, 3720 AA Bilthoven, The Netherlands. Telephone: (030) 78 70 33.

## IL QUARTO COLLOQUIO DI INFORMATICA MUSICAL

E' ormai da qualche anno che un gruppo sempre crescente di persone interessate allo sviluppo delle ricerche nel campo interdisciplinare fra musica ed informatica (musicisti, ricercatori, docenti, studenti...), operanti prevalentemente presso Conservatori, Università, Istituti del Consiglio Nazionale delle Ricerche, ed altri enti pubblici e privati, sente l'esigenza di riunirsi periodicamente per un aggiornamento reciproco sulle ricerche in corso, per uno scambio di esperienze e, contemporaneamente, per promuovere ed allargare il dibattito sul tema 'musica ed elaboratore elettronico'.

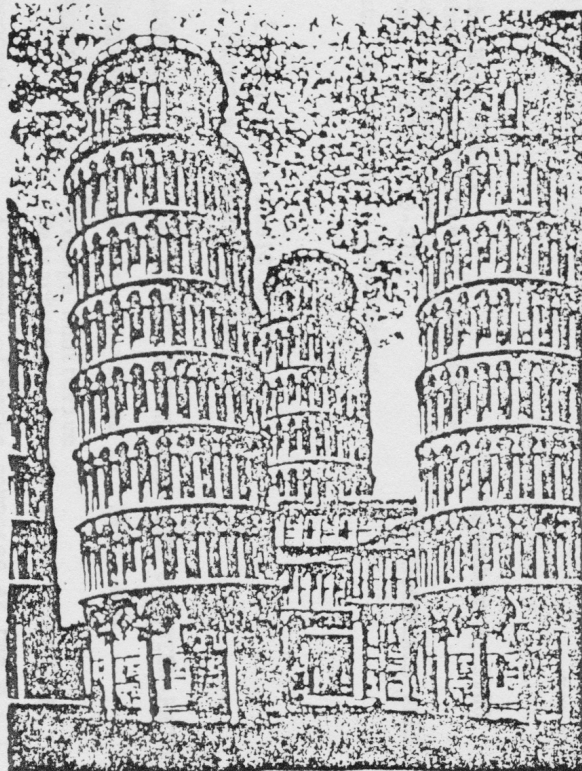
Durante questi incontri, denominati Colloqui di Informatica Musicale (Pisa, CNUCE-C.N.R., 23-24/2/76; Milano, Istituto di Cibernetica, 14/12/77; Padova, Università, 2-3/4/79), aperti a tutti gli interessati, sono state presentate e discusse memorie di carattere sia teorico che applicativo, riguardanti principalmente i seguenti temi:

- analisi musicologica mediante computer
  - tecniche di analisi, di elaborazione e di sintesi del suono
  - programmi e linguaggi di programmazione per la generazione, la codifica, l'elaborazione e l'esecuzione di strutture musicali
  - rappresentazione formale di strutture musicali
  - simulazione di processi compositivi
  - esperienze di musicisti e docenti sull'impiego di vari sistemi di computer music esistenti in Italia
- e, in generale
- problemi teorici e tecnologici legati alla progettazione e realizzazione di sistemi 'computerizzati' di produzione sonora, e problemi estetici e didattici legati al loro impiego.

Molte delle relazioni sono state accompagnate da audizioni e dimostrazioni.

Altri temi interessanti per la ricerca nel campo dell'informatica musicale, ma non ancora trattati nei Colloqui, sono ad esempio:

- sperimentazione sui piu' recenti metodi di sintesi del suono (funzioni di Walsh, distorsione non lineare...)
- metodi digitali di trattamento e modifica in tempo reale di suoni strumentali e vocali
- musica ed intelligenza artificiale
- musica ed 'image processing'
- applicazioni musicali di microprocessori e 'personal' computers



### CONTRIBUTI

Sono di tre tipi:

- a) memoria (con presentazione in 30 min.)
- b) poster
- c) nastri magnetici (esempi sonori, composizioni...)

I posters verranno esposti durante le due giornate del colloqui in una saletta apposita, dotata anche di impianti per l'ascolto dei nastri. Nella saletta, che sarà sempre aperta, gli autori potranno illustrare il proprio lavoro mediante colloqui informali con gli interessati durante apposite sessioni.

Il poster, in particolare, puo' illustrare ricerche in fase iniziale, risultati che non richiedono una intera memoria, tesi di laurea, progetti...; il musicista puo' utilizzare un poster per commentare i nastri magnetici presentati, con grafici, partiture...

Per ricevere una seconda circolare (che verrà distribuita in autunno) con informazioni sulle scadenze per la presentazione dei contributi, e altre notizie, vogliate inviare la vostra adesione (non impegnativa) mediante la scheda.

Il Quarto Colloquio di Informatica Musicale si svolgerà a Pisa nei giorni 1-2 Giugno 1981

### COMITATO ORGANIZZATORE

Tommaso BOLOGNESI  
tel. 050 45245

Giovanni De POLI  
tel. 049 657844

Goffredo HAUS  
tel. 02 235293

Giorgio NOTTOLI  
tel. 06 3765765

Reparto Musicologia, CNUCE-C.N.R., Via S.Maria 36 - 56100 Pisa

Istituto di Elettrotecnica ed Elettronica, Via Gradenigo 6/a  
35100 Padova

Istituto di Cibernetica, Via Viotti 5 - 20133 Milano

Istituto di Acustica 'O.M. Corbino'-C.N.R., Via Cassia 1216  
00184 Roma

From the News Office  
Massachusetts Institute of Technology  
Cambridge, Massachusetts 02139  
Telephone: (617) 253-2701  
Contact: Elizabeth C. Huntington

November 6, 1980

FOR IMMEDIATE RELEASE

M.I.T. EXPERIMENTAL MUSIC STUDIO TO  
PRESENT PROGRAM OF WORKS ON NOV. 17

CONCERT: MUSIC FOR INSTRUMENTS AND COMPUTER-PROCESSED SOUND  
DATE/TIME: Monday, November 17, 1980--8pm  
PLACE: Kresge Auditorium  
Massachusetts Institute of Technology  
PROGRAM: A survey of works composed at the M.I.T.  
Experimental Music Studio, 1976-80  
ORGANIZATION: M.I.T. Experimental Music Studio

The M.I.T. Experimental Music Studio will present a program of works composed at the Studio for instruments and computer-processed sound in a free, public concert on Monday, Nov. 17, 8 p.m., in Kresge Auditorium at the Massachusetts Institute of Technology.

The program will represent new compositions that were written at M.I.T. during the past four years and have been selected to demonstrate the broad spectrum of acoustical and musical techniques explored at the EMS. These pieces will also serve as a showcase for the variety of styles that have been brought to the EMS by composers from around the world.

The earliest of the new works on the program, Synapse for Viola and Computer, was written in 1976 by Barry Vercoe, director of the EMS and associate professor of music and technology at M.I.T. Available on CRI Records, the piece will be performed by Marcus Thompson, violinist and associate professor of music at M.I.T.

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November 6, 1980

Three other works were written for performer and electronic tape. John Lunn, a Ph.D. candidate at Glasgow University in Scotland, will perform his own Echoes for Piano and Computer (1980). Elliot Balaban, a jazz performer, arranger and composer of Cambridge, Mass., will present a musical theater piece, In My Future (1980), which features nine-year-old Nancy Anderson of Needham, Mass., in a singing and dancing role. Nocturne III (1979), a setting of a Robert Desnos text composed for soprano and tape by Geoffrey Wright, from the Peabody Conservatory in Baltimore, Md., will be performed by Judith Hull.

The concert will also include pieces for computer alone. U.C.S.D. composer Richard Boulanger's Trapped in Convert (1979), was described in a Boston Globe review as a "sonic spectacular that trafficked knowingly in extremities of volume and pitch, worked with a colorful palette, and successfully evoked a labful of sci-fi tinglers and their ilk." On the other hand, Brandeis University composer Peter Child's Impressions (1979), contrasts unusual electronic timbres with a relatively conventional musical structure.

Other compositions on the program are Septenarius (1978) by Alexander Brinkman, Eastman School of Music; Microvariations (1979) by Graham Hair, Latrobe University, Melbourne, Australia; and Spinner Web (1979) by Edith Piatt, Orange Coast College. Of the 1979 premiere of this last work, the Boston Globe said it "showed a vivid aural imagination...would have worked equally well as a concise, shapely, orchestral tone poem."

This program will be repeated in a concert at Alice Tully Hall, Lincoln Center, New York City, on May 19, 1981. Many of the pieces were composed during the summer Workshops in Computer Music Composition, offered annually at the EMS since 1978. With the assistance of tech-

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November 6, 1980

nical staff and visiting composers, workshop participants are able to realize complete compositions during these sessions.

The M.I.T. facility has three computers, solely dedicated to the art of music making: a PDP-11/50 and a PDP-11/34, donated to the EMS by the Digital Equipment Corporation, and an IMLAC PDS-4 display computer.

A standard computer-based system can be artistically inhibiting. "However, our computers have been taught to understand the language of music," Dr. Vercoe explains, "so that composers may have the freedom to do exactly what they want."

This new situation is exceedingly attractive to the current generation of young composers. Eastman School of Music, for instance, is but the latest of a large number of institutions to have acquired a copy of the M.I.T. system for its own teaching and concert performances.

"Computer music," Dr. Vercoe says, "is coming out of the closet for composers and audiences alike."

This concert is made possible in part by a grant from the National Endowment for the Arts. The public is invited to a reception in the Student Center Mezzanine Lounge immediately following the concert, to meet the composers, performers and studio personnel.

--END--

ECH/11/6/80

\*\*\* A Call for Papers, Ideas, Inventions Concerning Music Input Devices \*\*\*

Christopher "Fry" Fry of the M.I.T. Experimental Music Studio is now in the process of collecting data for an article on computer music input devices. He has requested that the C.M.A. publish the following in the issue of the Newsletter.

Fry's article will be a broad survey on the subject of input devices and aims at giving the reader a comprehensive overview of the topic along with sufficient references for further research. The article will deal with music input devices and techniques, thereby aiding music application and systems designers as well as peripheral hardware engineers in pursuing the tools for easy data input. The following is from Fry's initial request to C.M.A. members and newsletter readers....

The article will include sections on

1. possible human outputs which can be detected using
2. physical properties which can be used in designing
3. realizable hardware devices whose raw output is subject to
4. interpretation by a computer and becomes input to
5. application programs that perform musical functions as well as give
6. feedback to the human controller.

Any information on the above that you send to me will be appreciated, but what I really want are articles and ideas that are rare and/or peculiar to you and your organization. Send sketches! Science fiction concepts count! To give scope, here's some of the things I'd like news on: tablets, touch panels, multi-dimensional joy sticks, piano keyboards (esp. with real feel), speech recognition, eye movement detectors, 3d sensors, tv cameras, brain wave receivers.

In return, I promise credit for unique ideas plus an article that might save you from re-inventing the optical slidepot. If you happen to be selling a product, it amounts to free advertising. Send all reports, etc. to:

FRY

c/o M.I.T. Experimental Music Studio

Bldg 26-311

Cambridge, MA 02139

Leona Publishing Co. Ltd.

2-15-11 Hiroo Shibuya-ku  
Tokyo 150 Japan  
TEL: 03-498-4880

September 6, 1980

Dear Sir:

The Leona Publishing Co. Ltd., a Japanese firm specializing in art/technology publications, is now making a survey on the effect of newly-emerging technologies, which center on digital and micro electronics, on the human artistic activities, including, as a major subject, computer music (computer composition, digital sound synthesis, psychoacoustics, etc.).

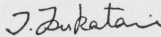
We are well aware of the existence of the directory of institutes in the field of computer music prepared in 1976 by the Canadian Committee for UNESCO. In fact, we are writing to you according to the information obtained from that directory. What we are interested in is your recent achievements and research directions in the future. For this information, we would appreciate it very much if you could fill up the questionnaire herewith enclosed and send it back to us by the return envelope. And also, we would like to ask you to send us a list of recent reports and books that you publish, for which we are of course willing to pay additional expenses necessary (please so indicate in the last part of the questionnaire).

The information from you will be compiled as a report on the state-of-the-art in computer music, which will be published in Japan in the first quarter 1981. Japanese readers, we believe, will greatly appreciate knowing about research activities being carried out by your institute.

If anything comes to your mind which we, as a Japanese publisher could do for you, please so indicate in the last part of the questionnaire.

Appreciating deeply your cooperation and time,

Yours sincerely,

  
Takuro Tsukatani  
Executive Director

QUESTIONNAIRE

Your name:

Name of your institute:

Address:

tel:

Name of the representative:

- 
- 1) Could you give a rough illustration of your system in operation?  
In particular, if a major expansion has been made since 1976 or is planned soon, please specify the types of equipment.

- 2) Could you give an explanation of your software system?



Questionnaire, page 2

- 3) What are the major research interests in recent years? Could you give the names of researchers, fields and publications?

Provide your Association Name and Number

The purpose of this questionnaire is to gather information about our field, provide feedback and coordinate communication and activities among members of the field. Please answer as many questions as are applicable to your situation. Your answers, and completion of this form, is not a commitment to membership in the IAA. Thank you for your cooperation.

Full name \_\_\_\_\_

Full address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 4) What are the fields in which you are planning to do further research?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

What did you study/teach in your most recent course?  
\_\_\_\_\_  
\_\_\_\_\_

What are your research interests in computer science?

Questionnaire, page 3

- 5) Do you have any periodical publications, workshops or seminars?

(A) If "yes" to (5), describe the following (frequency, frequency, articles, other software):  
\_\_\_\_\_  
\_\_\_\_\_

(B) If "yes" to (5), do you have access to a computer dedicated to video applications?  
\_\_\_\_\_

(C) Do you have audio equipment available which others could use? (describe) \_\_\_\_\_  
\_\_\_\_\_

(D) If "yes" to (5), what format video system, what are series (e.g., 3000) used, is it available on, and for what amount?  
\_\_\_\_\_  
\_\_\_\_\_

(E) What software tools are you using to create your video?  
\_\_\_\_\_  
\_\_\_\_\_

(F) If you are a composer of computer music, please provide a separate sheet a list of your compositions, their platform, file size, and information on recordings (commercial or otherwise) and their availability (e.g., posted on web or tape or others).  
\_\_\_\_\_  
\_\_\_\_\_

(G) If you have writing papers or books on computer music, provide for a separate sheet a list of those papers, their status of publication, and information on their availability.  
\_\_\_\_\_  
\_\_\_\_\_

Computer Music Association Member Questionnaire

Note: The purpose of this questionnaire is to gather information which may help provide services and facilitate communication and exchanges among members of the CMA. Please answer as many questions as are appropriate to your situation. Note, however, that completion of this form is not a prerequisite to membership in the CMA. Thank you for your cooperation.

(1) name \_\_\_\_\_

(2) address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(3) telephone number \_\_\_\_\_

(4) background (education, work, etc. - a brief summary)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(5) When did you first begin to work with computer music?  
\_\_\_\_\_  
\_\_\_\_\_

(6) What are your areas of interest in computer music?  
\_\_\_\_\_  
\_\_\_\_\_

(7) What are your current areas of activity in computer music?  
\_\_\_\_\_  
\_\_\_\_\_

(8) Do you have access to a computer music facility? \_\_\_\_\_

(9) If "yes" to (8), describe the facility (hardware, operating system, other software)  
\_\_\_\_\_  
\_\_\_\_\_

(10) If "no" to (8), do you have access to a computer dedicated to other applications? \_\_\_\_\_

(11) Do you have music software available which others could use? (describe) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(12) If "yes" to (11), what format (file system, etc.) and medium (e.g., 9-trk tape) is it available on, and for what terms?  
\_\_\_\_\_  
\_\_\_\_\_

(13) What software would you like to receive from others?  
\_\_\_\_\_  
\_\_\_\_\_

(14) If you are a composer of computer music, provide (on a separate sheet) a list of your compositions, your publisher (if any), and information on recordings (commercial or private) and their availability (e.g., rental or sale of tapes or scores).

(15) If you have written papers or books on computer music, provide (on a separate sheet) a list of these papers, their place of publication, and information on their availability.

(16) If you have purely technical interests and skills, please list them on a separate sheet.

(17) If you have any additional comments, please submit them on a separate sheet.

\*:\*:\*:\*:\*:  
CMA OPEN FORUM  
\*:\*:\*:\*:\*

One of the broader purposes of the C.M.A. is to establish links between those interested in the subject of computer applications to music. The Newsletter offers a physical channel for communication and we want this channel to remain as functional and efficient as possible for members and administrators of CMA.

Recently, some questions have been revived within the computer music community as to the actual need for such an Association. (These questions were also raised at the 1977 La Jolla ICMC.) If it is to exist, exactly how can it serve its members? For the moment, there is this Newsletter and it can and should be used to disseminate the following questions and to publish your responses and input.

The questions formulated thus far are below. Please respond to these and pose any others you see as relevant. This forum is open to CMA members and non-members.

Your responses, please....

- 1) How do you feel about the general need for a C.M.A.? What specifically specifically should/could it do for you?
- 2) Should the C.M.A. continue to publish and distribute a Newsletter?
  - a) If so, how could its features complement those of the M.I.T. Press Computer Music Journal?
  - b) What should the focus of the Newsletter be such that it provides a definite service without overlapping with the Journal?
- 3) Should C.M.A. membership automatically include subscription to the Computer Music Journal? If so, understand that we will obviously need to cover the cost within the membership fees.
- 4) What role, if any, should C.M.A. take with respect to the Int'l Computer Music Conferences?
  - a) Should it remain totally uninvolved?
  - b) Should it be involved in the site selection?
  - c) Should it be involved in planning?
  - d) Should it be involved in sponsoring, etc., etc.?
- 5) What questions or suggestions do you have concerning the formation and/or maintenance of such an organization?
- 6) What other thoughts and considerations do you have concerning any aspect of C.M.A. or your (group's) relationship with it?

1)

2)

3)

4)

5)

6)

It is imperative that we openly pose and seek to resolve these kinds of questions, especially while the Association is in its germination phase. Perhaps it is useful to bear in mind that the degree to which CMA can serve you is directly related to your participation and willingness to provide input and/or feedback.

Your prompt response will be appreciated. Send these and any input to:  
Computer Music Association  
P.O. Box 1634  
San Francisco, CA 94101

Proceedings of the 1978 International Computer Music Conference  
In Two Volumes

Compiled by C. Roads

Published by the School of Music, Northwestern University in conjunction with *Computer Music Journal*

Order Form

Check selection:

Vol. 1 - \$11.00 + \$1.50 postage (4th class) = \$12.50. Quantity \_\_\_\_\_  
Synthesis Hardware, Synthesis Software, Compositional Techniques

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Computer-Aided Music Analysis and Musicology

Vols. 1 and 2 - \$20.00 + \$2.00 postage (4th class) = \$22.00. Quantity \_\_\_\_\_

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Note:

For 4th class allow 4-6 wks for delivery.  
Per volume, add \$2.00 more for UPS shipping in US.  
Per volume, add \$1.00 more for foreign surface mail.  
Total weight of both volumes approximately 110 oz.

All orders must be prepaid. Send to: Northwestern University Press, 1735 Benson Avenue, Evanston, IL 60201, USA;  
Attn: Order Dept / Mr. Wall.

\*:\*\*\*\*\*  
C.M.A. Membership Information  
\*:\*\*\*\*\*

The Computer Music Association accepts members internationally. Regular membership fees are \$6.00/year. Student fees are \$4.00/year (please enclose a copy of your current student registration card). All members will be entitled to receive the quarterly C.M.A. Newsletter. All checks must be for U.S. dollars, drawn on a U.S. bank.

All articles or announcements submitted for entry into the Newsletter must be in facsimile form (copy-ready). Materials written in any language are acceptable, however, if not in English, please submit an abstract in a second language.

\*:\*\*\*\*\*  
Advertising Information  
\*:\*\*\*\*\*

A limited number of ads can be published in the C.M.A. Newsletter. For rate and deadline information contact the address below.

Proceedings of the 1977 International Computer Music  
Conference Published by the Computer Music Association

Order Form

270 pages, two sided-copy, spiral binding \$14.50 + \$1.50  
postage (4th class) = \$16.00 quantity \_\_\_\_\_

Total \$ \_\_\_\_\_

name \_\_\_\_\_

address \_\_\_\_\_

city \_\_\_\_\_

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