

### DEADLINE FOR THE NEXT ISSUE

The theme of the next issue will be the International Computer Music Conference. We invite essays, reviews, or comments on the 1990 ICMC as well as suggestions regarding any aspect of future conferences.

As always we welcome news of your company or institution, reports on your research, new product announcements, opinions, essays, music or paper reviews, and, any other items of interest to the computer music community.

The deadline for all submissions to the next issue is October 1. Send submissions and correspondence to:

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LIVE OR TAPED? REAL OR UNREAL TIME?  
LOOKING OR LISTENING? ARE THESE ISSUES  
LIVE OR DEAD?

Larry Austln, President, CMA

“A toy...” declared my colleague Karlheinz Stockhausen in 1967, when he declined my proud invitation to explore the potential of our newly acquired Buchla 100-Series analog synthesizer. He was in residence that year (1966-67) as a Regents Professor at the University of California, Davis, fresh from his work in classically configured electronic music studios in Japan and his renowned base in Cologne. Later that year he reported excitedly to me that he had just visited the new computer music facilities at Stanford University and that, “They can produce an absolutely stable sine wave!” He was referring, of course, to John Chowning’s pioneering discoveries there in the direct digital synthesis of sound, frequency modulation, and sound placement cueing, using large, mainframe computers.

That same year, composer/performer David Tudor was also in residence at Davis (What a year!), and we all were excitedly involved in collaborative efforts with him in designing and building small, self-contained, modular analog sound devices for live-electronic performance pieces... waveform and envelope generators, ring modulators, filters... the like. At the same time, our ears were drawn to and greatly impressed by Stockhausen’s new tape music, most particularly his *Telemusik* (1966) and *Kontakte* (1960). He gave public lectures on them, and we presented them on our concerts. In fact, one of the last performances of the tape-plus-piano-percussion version of *Kontakte* that pianist David Tudor agreed to participate in was presented at Davis in 1967.

Later, my own first explorations of mainframe computers and direct digital synthesis took place in 1969 during the first annual summer workshop in computer music at the Artificial Intelligence Project installation at Stanford. There, John Chowning and his colleagues (Max Mathews, James Tenney, James Beauchamp, Leland Smith et al) introduced us (me, David Wessel, Suzanne Ciani et al) to the PDP-10, card punching Music V data for processing on the big IBM machine, FORTRAN, Score, math, and even some psychoacoustics. I later used my own recorded results of that workshop in a tape piece, *Caritas* (1969), interestingly a hybrid sound-mass montage of PDP-10/computer-generated and Buchla analog synthesizer/patterned sequences. For me, the music of the “big” digital and “little” analog machines were not antithetical but complementary domains to explore and combine, just as my first live-electronic piece, *Accidents* (1967), was itself a kind of “studio-on-the-stage” version of my electronic music on tape to that date.

Why am I re-“live/tape”-ing all this, you ask? Are these musico-techno-ideological issues of exclusivity and perceived elitism still dividing our community of computer music practitioners? Big versus little machines? Digital versus analog? Real-time versus prerecorded? Direct digital synthesis versus MIDI-controlled? Institutional versus personal? Today, in this evermore pluralistic global village of ours, raising such potentially divisive issues seems to me wholly anachronistic. Apparently, however, they remain serious considerations for some of our computer

music colleagues and particularly for composer/computer music practitioner Richard Karpen in his recent review of concerts and listening sessions at the 1989 ICMC at The Ohio State University last fall in *Perspectives of New Music* (Vol. 28, No. 1, Winter 1990). Following are relevant excerpts:

“As a point of reference with regard to the process of selecting submitted compositions and the subsequent organization and programming of the concerts, it should be noted that the ‘theme’ of the 1989 ICMC was billed as ‘live’ computer music. This is of interest for those of us who have followed the ghetto-ization of tape music (or prerecorded music, since some pieces were played from compact disc) over the last several years. These tape-music ghettos have taken the form of ‘Listening Sessions’ (whatever that means!), which usually have taken place in small rooms with deficient sound systems (not the case in this ICMC, where the tape concerts were held in an auditorium), or in special Tape Concerts, where just prerecorded music is played. These Tape Music Concerts are usually held during the busiest times of the conference when many other interesting events (papers, demos, and so on) are going on, causing the conference participants to choose between listening to music, or listening to talk about music. This was the case in the 1989 ICMC. Prerecorded music has been mostly absent over the last few years from the evening concerts, which have no competition for the attention of the conferees. The present ICMC was so extreme as to eliminate tape music entirely from these evening concerts... Computer music on tape has just as much of a chance of being of high, medium, or low quality as any other music. The more interesting pieces of tape music, however, can often be more sonically innovative (with regard to electroacoustic sounds), since a composer’s concentration can focus on the ‘sound’ of the piece without the issue of what will work in real time or how to blend with acoustic instruments being part of the musical decision-making process. Often the sounds and textures which have been achieved in prerecorded, pre-processed computer music on tape can act as fuel for future real-time or live computer music. It is ironic, then, that these pieces do not get heard in the plenary evening concerts anymore. I hope that this trend is just a backlash to the dominance of tape music in the early days of computer music, but perhaps if tape music

continues to be treated as if it were of dubious value to computer musicians, then the organizers of future ICMCs should state up front, 'no tape pieces wanted.' It should be noted that most of the composers represented by 'live' music at the ICMC also compose 'tape' music and, of course, vice versa. What does this say about the programming decisions which consign tape music to the fringe events of these conferences? Do these decisions reflect a widely accepted trend, or the thinking of a few? Do composers themselves feel that their preprocessed, prerecorded music is of less importance than their 'live' music?"

As President of the Computer Music Association, which co-presents the annual ICMCs, I will respond to the first two of Richard Karpen's three questions, just quoted. First off, I can point out that there is no policy statement in CMA's official "Guidelines for the Organizing of International Computer Music Conferences" that dictates specifically how the ICMC concert music programming should be scheduled by the host site producers, nor do I believe there ever should be. As Dr. Karpen well knows, concert programming decisions must be based on both artistic and production considerations, and the producers of the concerts must be given due professional latitude in such complex matters. "Tape Music Concerts" or "Listening Sessions" may sound to Dr. Karpen like "fringe events", but — as his review attests — many of the finest musical moments happen in these tape music "ghettos", and seasoned ICMC conferees know it. At the 1987 ICMC in Illinois, the eternal problem of conflicting with paper sessions was handily solved by scheduling each such daytime listening session three different times during the conference. However, that approach can often create serious logistical and performance venue problems, as conference organizers fully appreciate. Personally, I agree with Dr. Karpen that tape pieces should be interleaved with "live" performance presentations at the plenary evening concerts (as they have often been in past ICMCs; for example, my own *Sonata Concertante* (1984) for piano and tape was on the same evening concert with Jean-Claude Riset's tape piece, *Sud*, (1985) at the 1986 ICMC in Den Haag). But, again, that should remain a programming prerogative of the ICMC host. In short, there is no ICMC/CMA policy guideline and certainly not a silent conspiracy or "backlash" to exclude or isolate prerecorded computer music; there

is only the constant hope of all ICMC organizers that "everything will finally work out for the best" in all such matters of taste, genres, and logistics.

To speak to the issue raised by Dr. Karpen's third question, "Do composers themselves feel that their preprocessed, prerecorded music is of less importance than their 'live' music?", I offer as my response — not as CMA President but as a practicing composer of computer music — an excerpt from an extended article I authored just over a year ago and which will be published in the upcoming special issue on "Live Electronics" in the British journal, *Contemporary Music Review* (Vol. 6, Part I, 1990):

"Music has been and remains primarily a performing art. Patrons of art, performers and conductors — when sponsoring the creation of new performing art music — commission composers to write pieces to be performed, and, in my own case, often to play *with* or *through* electro-acoustic media. There are, of course, venues and contexts for the *presentation* (notice I didn't say *performance*) of solo tape pieces — sound galleries and installations, at computer music festivals and conferences, on personal audio systems, etc. In these contexts, certainly, the beauty and virtuosity of tape pieces like Jean-Claude Risset's *Sud* (1986) or John Chowning's *Phone* (1980-81) heighten our aesthetic acuity and appreciation: sound-for-sound's-sake. This music is a vital, personal art experience. In fact, I feel that the best way to *hear* solo tape music is alone, in the dark, or with closed eyes, experiencing the aural imagery and sound patternings created by the composer — *performerless* and, one could even say, pure. 'How does the composer do that?' we wonder. 'Oh, what a beautiful transformation of the sonic space,' we muse. 'Magic!'"

"At its best and rarest, tape music — alone — transcends its context of presentation. Nothing is missing. Pure, sonic pleasure. Tape music's meaning and importance as a medium is in the direct, very personal aesthetic contact the composer has with the audience: the tape composer's audience is, in effect, *one listening person*, whether that person is listening alone or, perhaps, with closed eyes in a darkened hall, *alone* in a concert audience."

"Performers, of course, are left out of solo tape music's ideal composer ↔ audience aural intercourse. Listening — *only* listening — distills the experience of appreciating music: a performerless medium, removed and

abstracted from theatrical, ritualistic, virtuosic performing art contexts. Like the composer, hearing and modeling the piece as the materials for the piece form themselves, listeners to tape music *imagine* its sonic import, intent only on its meaning, its worth as sound art, a performing art of the mind's ear."

"It used to be true, especially in the 'sixties, that live-electronic performance was touted as technically superior to tape playback performance: one could *hear* the idiomatic presence of tape hiss and the aggravating clicking on and off of the machine. Those relatively important technical distinctions no longer adhere today. Digital recording and noiseless playback are today a practical, if not ubiquitous reality. Today, live-electronic and solo tape music, while different in performance presentation, are really of the same class of 'loudspeaker' music. To the extent that I almost always require the performers in my own pieces in the tape-plus-live genre to be amplified, I believe *all* my electro-acoustic and computer music media pieces to be live-electronic. In these loudspeaker pieces the true, desirable fusion of all the sound colors — acoustically or electronically produced — can best be achieved only when the acoustic sound takes on the electronic presence through the loudspeakers that carefully applied amplification can bring. To my ears, however slight the amplification, the acoustic sound somehow comes alive, when electrified. I want to hear the acoustic sound absorbed and integrated in the tape music's electronic texture. In fact, in almost all of my tape-plus-live pieces, I model the acoustic sounds through digital recording and/or resynthesis, intent on fusing them with the sound colors and event streams of the tape. I model the tape-plus-live piece to be fully integrated. In my thinking, these pieces are not 'tape-plus-live' or 'mixed media' they are — to the extent I succeed in my intent — 'electro-acoustic fusion' pieces. The 'live' in live-electronic means more to me than the obvious fact that there are humans performing musical instruments, voices, or systems through loudspeakers: 'live' means *whole, wholly integrated*, phenomenologically: for me, this is the *Klangideal* for all my electro-acoustic music, whether for tape alone, tape-plus-live, or live-electronic."

"Perhaps, the distinction made between the live-electronic and tape-plus-live genre is really in the aural illusion that is created by the way the magic is performed. The live-electronic performer's virtuosity is in this

electronic magic. A live-electronic piece and its sonic magic tricks are performed 'before your very eyes!'

And, therein, lies the magic or even celebratory nature of all music that calls for the participation of live performers on the concert stage: the musicians are celebrants in a musical communion with the audience. We human beings love celebration, and we musicians traditionally prefer the celebration of our music making at our more festive evening concerts. It's no wonder that performer-less tape pieces seem more "prayerful" than the celebratory performer-full pieces, which are more likely to be programmed on these plenary evening concerts. To carry the church metaphor to its extreme, perhaps, I believe in the ecumenical approach to the liturgy of computer music presentation: prayer and meditation for the devout and religious; celebration and charismatic communion for the laity; and the fervent hope for a healthy liturgical admixture of prayer and celebration for all. Amen, amen, amen, I say, amen.

...

*Richard Karpen's response:*

The careful reader of my review of the 1989 ICMC, referred to in Larry's editorial, will find that I have not in any way suggested that it is a CMA policy, or an organized "silent conspiracy," that is to blame for the relegation of tape music to daytime concerts. Larry feels that I have raised "potentially divisive issues" in my criticism of the concert programming at recent ICMC's. Although it was not my intention to be divisive in pointing out problems that already exist, to suppress our criticisms for fear of causing disagreement among colleagues would be counterproductive to our cause. My argument has nothing to do with whether tape music is better or worse than live music; I myself compose both. The simple fact is that tape music has been given a second-class status in recent ICMC programming. Tape concerts have been taking place during the busiest times of the conferences, when conferees are hectically trying to take in the many simultaneous events, creating sadly undersized audiences in comparison to the evening concerts which are free of competing events.

#### AI AND MUSIC: IN SEARCH OF A METAPHOR Stephen Smollar

I recently signed off on the proofs of a book review I had written for the journal *Artificial Intelligence*. The subject of this review was actually not a book but a special issue of another journal, *Interface*, dedicated to the topic of "Models of Musical Communication and Cognition." Editor Marc Leman claimed, in his introduction, that the papers in this volume "bear witness to, and are excellent examples of, the application of COGNITIVE SCIENCE and ARTIFICIAL INTELLIGENCE to music" (his emphasis). In writing a review for members of the artificial intelligence community, I felt it necessary to respectfully disagree. My final summary of this volume observed that "most of the authors have displayed an appreciation of issues of cognitive science and artificial intelligence that is well-intentioned but weak."

Why should so many attempts at serious study ultimately turn out to be so disappointing? To accuse these authors of naivete would amount to scientific arrogance. Besides, many of the achievements of artificial intelligence are readily available for study. The problem, I think, resides in how those achievements are presented. While it would be fair to say that the successes of artificial intelligence are no more than "moderate," presentation of those results inevitably suffers from inflation once they are offered to the public (which usually takes the form of thesis committees, review panels, and funding agencies). As a result, the unprepared scholar can encounter no end of impressive prose in the interest of promotion; and he may have to actually try to implement or hand-simulate the project under discussion before he discovers that it is more modest than that prose may have led him to believe. I feel that much of the weakness on the part of music scholars attempting to harness artificial intelligence lies in such a lack of preparation and a tendency to try to build castles on the promises of the prose before first testing the actual foundations.

How may this matter be resolved? One extreme measure would be simply to jettison the term "artificial intelligence" on the grounds that it lures one to mistaken conclusions about what machines can currently do. However, this may be a case of confusing the baby with the bath water. The term "artificial

intelligence" is a metaphor; and, in that capacity, it has helped us to consider new directions for computer research. Nevertheless, a metaphor is only as good as our ability to align it with reality; and treating our metaphors as if they WERE reality can only lead to misunderstanding. Perhaps authors such as the contributors to this recent volume of *Interface* would be better off thinking about developing their own metaphors, rather than trying to catch a free ride on those of artificial intelligence and cognitive science.

#### WHY AN ICMC PROCEEDINGS? Roger Dannenberg

I believe that high-quality publication of music and research papers ought to be a high priority of the CMA. I would like to illustrate how we have diverged from the publishing practices of successful scientific communities, and suggest how we might improve the ICMC Proceedings.

The Computer Music Association has made a real contribution to the field by publishing ICMC Proceedings. A wealth of information is available through the Proceedings that otherwise would be published after a long delay (if ever). I would venture to guess that nearly half of all published technical computer music papers appear in the Proceedings. Because the Proceedings are so important, I find it very disturbing that, for the second year running, only short papers of a few pages will be published.

One of the advantages of a proceedings is that authors can give detailed accounts of their work. Oral presentations are inevitably too short to convey great detail, and people who are not able to attend the conference or a particular talk should be able to get a full written account. The goal of the Proceedings should be to disseminate knowledge from researchers to the reader, and this can rarely be done in a few pages.

I believe that restricting the page count has led to a qualitatively different publication. The reader can learn what the researcher has done, but not how. Thus, the Proceedings becomes a directory of work in progress, but not a source of knowledge. Even the spiral binding on the 1989 Proceedings calls out that the Proceedings are no longer an archivable resource for the library bookshelf.

Complete disclosure of methods has been an important concept in the advancement