

## Current Events



## Meetings

AAAI

See *Special Topics*.

ACOM

As the home of numerous bibliographical projects organized under the umbrella-title of Archivio Computerizzato Musicale Veneto (A.CO.M), the Fondazione Levi in Venice provided an appropriate setting for a three-day workshop on computer systems for transcription, editing, performing, and printing traditional musical scores. The workshop took place between December 15 and 17, 1988. Further information about these projects is available from Sele Sistemi, Palazzo Giustinian Lolin, S. Vidal 2893, 30124 Venezia.

CATH

An annual conference on Computers and Teaching in the Humanities is held in the UK. In December 1988 it was held at the University of Southampton. Organized by the Office of Humanities Communication in conjunction with the Association for Literary and Linguistic Computing and the Computers in Teaching Initiative Support Service, CATH poses many probing questions about the changing definition of the humanities and the changing context of humanities research.

CTISS welcomed a new head, Jonathan Darby, in the autumn of 1988. It published a bimonthly bulletin of activities in the UK.

COLLEGE MUSIC CURRICULUM

The University of Minnesota will host a conference on "College Music Curriculum and Current Technology: Models for Application" on August 2 - 4, 1990. Enquiries may be sent to 10 University Drive, Duluth, MN 55812-2496.

CMR

Queen's University, Belfast, will host the second Computers in Music Research conference on April 7-10, 1991 (the first conference was held at Lancaster University in April 1988). The conference will be organized by Alan Marsden, who is now at Queen's.

#### ICCH

With the title "The Dynamic Text" the ninth International Conference on Computers and the Humanities took place in Toronto from June 5 to 10. Two sessions were devoted to music. Lelio Camilleri, Jim Kippen, and Helmut Schaffrath spoke in a session on "Models and Analysis." Camilleri's talk discussed different computational models for music and potential interactions between analysis, theory, and cognition. Kippen's paper was concerned with the methodology of studying North Indian tabla drumming. Schaffrath's paper described relations between performance, encoding, and analysis of traditional music.

In a session on "Tools and Analytical Methodologies" John Morehen reappraised "The Methodology of Musical Authorship Studies" in connection with his own work on William Byrd. Francesco Giomi and Marco Ligabue described their "Tool for the Study of the Jazz Idiom." Alan Marsden, in a paper entitled "Tools for the Musical Programmer," addressed needs related to data structures and time dependency.

[Report submitted by Lelio Camilleri and Francesco Giomi]

#### ICMC

At the fourteenth International Computer Music Conference, held in Cologne from September 20 to 25, 1988, sessions on music representation and music workstations were held, although the main emphasis was on contemporary computer music.

The next ICMC will take place at Ohio State University in Columbus from November 2 through 5, 1989. Notable items in a long agenda are a panel discussion of music representation chaired by Guy Garnett, a report from the ANSI music information processing standards (MIPS) committee, a paper by Andranick Tanguiane concerning "An Analytical Approach to Performance Interpretation" (see the report in the 1988 *Directory* on p. 39), and Perry Cook's presentation on artificial singing, which is based on research currently in progress at Stanford University.

#### ICMPC

The first International Conference on Music Perception and Cognition was to be held in Kyoto, Japan, in mid-October 1989. The secretariat is at the Department of Music, Kyoto City University of Arts, Kitsukake, Ohi Nishiyo-ku, Kyoto 610-11, Japan. The meeting was to be co-chaired by Diana Deutsch, the editor of *Music Perception*.

#### ICTM

Edinburgh University hosted the Study Group of the International Council on Traditional Music from September 28 to October 2, 1988. Presentations were given on a variety of subjects including music representation (Rosa Michaelson, Michael Harris, and Geraint Wiggins), transcription of repertoires outside the boundaries of common music notation (Ioannis Zannos, Kathryn Vaughan), input, storage, and retrieval of folksongs (Barbara Jesser, Helmut Schaffrath), and printing and sound tools (Eric Foxley, Emil Lubej). James Kippen and Bernard Bel demonstrated a program for the automatic generation of rhythmic patterns associated with the tabla.

This year's meeting of the group, a joint gathering with the Study Group on Analysis and Systematisation of Folk Music, took place in July in Schmalding, Austria. Papers presented included those of Iannos Zannos on "Modelling Modal Systems on the Computer: An Approach based on the Greek, Turkish, Japanese, and Chinese Modal Systems," Shen Qia on "Mathematical Models of 'Hinqiang' in Chinese Traditional Music," and Emil H. Lubej on an "Ethnomusicological Package (EMAP) on the PC AT for Monophonic Coded Musical Information."

#### IMS

A study group on musical databases and other aspects of electronic scholarship has been organized under the auspices of the International Musicological Society. The group, chaired by Walter B. Hewlett and Eleanor Selfridge-Field, currently consists of about 20 members drawn from a broad international spectrum. An assessment of needs related to the furtherance of the subdiscipline is being prepared by the group for eventual distribution. Local activities are also being encouraged by members. Comments and queries may be addressed to the conveners at CCARH.

#### MUSIC AND INFORMATION SCIENCE

Talks on "Style Analysis with Computer Aids" by Makoto Ohmiya, on the study of musical performance using analysis-by-synthesis by Johan Sundberg, and on music typography using small computers by Leland Smith were given in an international symposium on Music and Information Science held on March 28, 1989, in Kyoto, Japan. Ohmiya is the co-author, with Jan LaRue, of a two-volume study in Japanese called *Methods and Models for Comprehensive Style Analysis*.

## MUSIC ORIGINATION

A one-day seminar entitled "Music Origination by Computer: Quality and Standardization" took place at the University of Surrey on May 19, 1989. The seminar, which was a joint venture between the University of Surrey and Oxford University Press, was attended by about 100 delegates from diverse backgrounds. The speakers included Andrew Potter, director of the music publishing division of OUP, Michael Rowe, a freelance music originator, and the composer Trevor Wishart. The main topics of discussion concerned the changing role of the publisher and the prospects for data interchange. The afternoon was set aside for product demonstrations [see *Music Printing*].

[Condensed from a report by Nicholas Carter]

## Publications

### ACH

Goffredo Haus will edit a special music issue of the yearbook *Advances in Computing and the Humanities*, under the general editorship of Ephraim Nissan. The book will cover topics from the perspectives of musicology, electronic music, and experimental research in modelling and cognition. It is due to appear in 1990.

### CMJ

The *Computer Music Journal* is now edited by Stephen T. Pope. Submissions may be addressed to P.O. Box 60632, Palo Alto, CA 94306 or [parkplace!computer-music-journal@Sun.com](mailto:parkplace!computer-music-journal@Sun.com). Contributions to the new calendar of events are especially welcome but should be sent 18 months in advance if possible.

### CMR

An annual publication concerned with *Computers in Music Research* is scheduled to make its first appearance late this year. It will treat such topics as computer-aided analysis, computer-assisted instruction, computer-aided theory development, and work in perception and cognition. Book and software reviews will also be included. The editorial office will be maintained at the University of Wisconsin in Madison, where the journal will also be produced. The members of the editorial board come predominantly from the ranks of the Society for Music Theory.

### COGNITIVE FOUNDATIONS OF PITCH

Carol L. Krumhansl and her colleagues in the Department of Psychology at Cornell University are completing a book on *Cognitive Foundations of Musical Pitch*. In progress since 1978, the book will be published by Oxford University Press. Knowledge of pitch structures in Western tonal music is correlated with pitch structures in the music itself.

### COMPUTER ANALYSIS OF MUSICAL STYLE

David Cope is the author of *Computer Analysis of Musical Style*, a forthcoming book from A-R Edition, Inc.

## HCY

A report on computing activities in music and musicology by Lelio Camilleri and Eleanor Selfridge-Field will appear in the second *Humanities Computing Yearbook* for 1989 edited by Ian Lancashire and Willard McCarty. The volume will be published by Oxford University Press in 1990. *HCY* contains useful lists of facilities and publications of particular value in interdisciplinary endeavors.

## HUMBUL

Although entries concerning music are rare, the HUMANities BULLETin board maintained at Leicester University in the UK is easy to browse and quick to provide full documents when desired. It currently serves more than 2300 readers.

HUMBUL is accessible to users of JANET, EARNNET, and BITNET. The addresses for requesting files are:

LISTSERV@MAIL.RL.AC.UK (BITNET)  
LISTSERV@UKACRL (EARNNET)  
LISTSERV@UK.AC.RL.MAIL (JANET)

The subscription command is SUB HUMBUL <your name>. Contributions of information for distribution may be sent to:

HUMBUL@MAIL.RL.AC.UK (BITNET)  
HUMBUL@UKACRL (EARNNET)  
HUMBUL@UK.AC.RL.MAIL (JANET)

## INTERFACE

*Interface*, a journal initiated in 1972 in the Netherlands, publishes material concerning music in relation to physical and human sciences. Vol. 18, Nos. 1 - 2, is a double issue that explores cognitive musicology and artificial intelligence applied to music. Among the contributions are articles by Mira Balaban on AI and music, Marc Leman (the editor) on symbolic information processing, Alan Marsden and Anthony Pople on listening, David Cope on linguistic-based composition, and Lelio Camilleri on cognition. One recent article the Roumanian scientists Cosmin and Mario Georgescu proposed an approach to musicology based on General Systems Theory. A special issue on music and dynamic systems is now in preparation. Copies may be obtained by writing to Klaus Plasterk, Swets Publishing House, 347b, Heerweg, NL-2160 Ah Lisse, The Netherlands.

#### JMACS

The Japan Music and Computer Science Study Group, which was established in May 1985, meets every two months for presentations and lectures and holds a three-day summer workshop every year. It also issues a bimonthly bulletin (in Japanese). The Group includes computer music specialists, engineers, musicologists, ethnomusicologists, and publishers. At present the membership numbers about 200.

Topics of special interest to the group include automated performance, score transcription, score printing, automated arrangement, sound synthesis, sound recognition, perception, traditional musicology, and computational musicology.

The subscription fee is 2000 yen for individuals, and 3000 yen for overseas members. For further information please contact Keiji Hirata, NTT Software Laboratory, 3-9-11 Midori-cho, Musashino-shi, Tokyo, 180 Japan.

#### MARSDEN AND POPLE

Alan Marsden and Anthony Pople are editing a volume of selected papers from the Lancaster conference of 1988 entitled *Computer Representations and Models in Music*. Publication by Academic Press, London, is anticipated in 1990. The contents cover research in computer-assisted instruction, acoustics, composition, perception, and cognition.

#### MLA-L

An electronic mail distribution list for the Music Library Association and topics related to its interests has been established at Indiana University. The moderator is A. Ralph Papakhian. The subscription command is SUBSCRIBE MLA-L <full name>, and the electronic address is LISTSERV@IUBVM.

#### MRD

The Music Research Digest continues to be distributed electronically via Bitnet and related networks. MRD, now in its third year of operation, distributes queries and opinions concerning a wide range of topics, many unrelated to the research interests reflected in this publication. MRD also maintains file copies of detailed documents. An index of these documents can be obtained by sending the message "index doc" to the electronic address archive-server@bartok.sun.com.

#### MUSIKOMETRIKA

*Musikometrika* is the title of a new series of publications concerning the mathematical analysis of music. Initiated by Moisei Boroda of Tbilisi Conservatory in Georgia, USSR, the issues will form a subset of a series of publications on quantitative linguistics published in Bochum, West Germany. Of the twelve articles in the first issue, which appeared late in 1988, nine are in English, two in German, and one in French. A number of the contributors are from the USSR. The articles in English include translations of some of Boroda's most important work. Arthur Wenk writes on "Parsing Debussy: A Proposal for a Grammar of his Melodic Practice" and also provides a review of the proceedings (1984) of the Modena conference (1982) on *Musical Grammars and Computer Analysis*, edited by Mario Baroni and Laura Callegari. Other contributors include John Rahn (on *Ars Antiqua* motets) and Otto Laske (on cognitive musicology). The current price of *Musikometrika* is DM 44.80 and supplies are limited. Orders may be placed with Studienverlag Brockmeyer, Querenburger Höhe 281, 4630 Bochum 1, FRG. The ISBN is 3-88339-678-8.

#### NOTE AND TONE

*Note and Tone: A Semantic Analysis of Conventional Music Notation* is a formal study of knowledge representation in common music notation by Kari Kurkela of Helsinki University. It was published in 1986 by the Musicological Society of Finland.

#### PSYCHOMUSICOLOGY

Computer assisted studies in musical cognition have been reported in *Psychomusicology*, a biannual publication initiated in 1982 and published somewhat irregularly. The editor is David Brian Williams, Illinois State University, Normal, IL 61716.

## Research Units

### BERKELEY

A Center for New Music and Audio Research has recently been established at the University of California, Berkeley. The Center will be located at 1750 Arch Street, Berkeley. Richard Felciano is the director. David Wessel, who joined the enterprise this year, is offering classes on certain aspects of computational musicology.

### BLOOMINGTON, INDIANA

Gary Wittlich and colleagues at Indiana University are attempting to develop a set of tools for the study of twentieth-century music on the NeXT. The aim is to create a "music hypertext" environment in which a student can call up a musical score from the digital library, display it on the screen, select segments to be played, call up literature on the work, and pursue study procedures such as pitch-class set transformations.

### BRADFORD, UK

The Microcomputer Music Research Unit within the Department of Computing at the University of Bradford, England, lists as its current areas of research computer representation of music information, musical databases, synthesis techniques, sound analysis, instrument design, and psychoacoustics. The unit has existed for fifteen years and is well-known for its development of the Bradford Musical Instrument Simulator, which is used by computer organ manufacturers.

### ESSEN, FRG

Essen University's Gesamthochschule has placed in the public domain its MAPPET software for playin, playback, and analysis of its ESAC code. The analysis component is tailored to tasks useful in the analysis of gamelan music. For further information contact Helmut Schaffrath (JMP100@DE0HRZ1A.EARN).

The Hochschule's music resources and staff are scheduled to be consolidated with those of Folkwang Conservatory in 1993. It is anticipated that this consolidation may severely restrict the effectiveness of its current research program, led by Professor Schaffrath, of computer applications in ethnomusicology. Letters in support of a continuation of the music research program may be addressed to Frau Minister Anke Brunn, Voelklinger Str., D-4000 Düsseldorf 1, FRG.

#### LANCASTER, UK

Andrew Fenton has set out to build an intelligent tutoring system for teaching harmony to first-year undergraduates at the University of Lancaster. The system, in C, runs on IBM PC compatibles and is one element of the research program being carried out at the Centre for Research into the Applications of Computers to Music. The director of CRACM is now Anthony Pople.

Lancaster has also been designated as Centre for Music in the British chain of units involved in the Computers in Teaching Initiative. The Centre's mission is to provide information on the use of computers in teaching to music departments in British institutions of higher education. Lisa Whistlecroft is the research associate.

In line with this initiative, the CTI Centre for Music will publish twice annually a journal, *Musicus*, featuring articles and reviews by "experts who use computers regularly in their musical work." Distribution will be free to music academics within the UK. The external subscription rate is 10 pounds sterling. Material for review should be sent to Dr. Pople.

#### MARSEILLE, FRANCE

Software for similarity analysis and for the implementation of temporal grammars, the former in Pascal for the Macintosh and the latter in PROLOG III for the Sun, is being developed at the Laboratoire Musique et Informatique de Marseille. The "order and chaos" group at the laboratory is exploring strategies for automatic composition that involve the analysis of existing musical idioms followed by the evaluation of decisions.

Some of the work of the group is oriented toward the study of improvisation. The bol processor, developed at LMIM in 1982 by Bernard Bel, enabled Jim Kippen in his study of tabla playing to transcribe the onomatopoeic syllables (bols) recited by tabla players in building an expert system to capture the dynamic aspects of this art. The elaboration of a grammar of rhythmic patterns was a central part of this work.

LMIM hosted a colloquium on musical structures in computer-aided music analysis in June 1988.

#### OTTAWA, CANADA

William McGee (music) and Paul Merkley (electrical engineering) are collaborating in a three-year project in realtime transcriptions of music at the University of Ottawa. Their aim is to distinguish individual notes in polyphonic music. Their work is being carried out on an IBM PC.

## **Courses of Study**

### **NORTHWESTERN UNIVERSITY**

Northwestern University in Evanston, Illinois, has been offering a master's degree in "Computer Studies in Music" for several years. The curriculum, directed by Gary Sandell, requires coursework in electrical engineering, psychology, perception, and music.

### **NOTTINGHAM, UK**

The University of Nottingham offers both a B.A. and an M.A. in Computer Studies in Musicology. The graduate program is now five years old, the undergraduate program ten. The course concentrates on computer-assisted storage, retrieval, and analysis of music and musical notation and is suited to the interests of those intending to engage in research related to analysis, historical and stylistic studies, editorial work, cataloguing and bibliography. Enquiries may be sent to Professor John Morehen, Department of Music, University Park, Nottingham, NG7 2RD, UK.

John Roeder has introduced a course on Computational Models of Music at the School of Music at the University of British Columbia. Formal representations of harmony, counterpoint, and other musical processes are considered.

## Theses

\* Javier Alvarez is investigating the relation between rhythmic structure and the perception of musical time and form in a doctoral thesis at City University, London. A brief description, "Rhythm as Motion Discovered," appears in the *Contemporary Music Review* 3/1 (1989).

\* At Boston University Don Cantor is developing a cognitive model for listening described in "A Knowledge Acquisition System for Segmentation in Music". He is using LISP programs with HyperCard software on a Macintosh Plus.

\* Nicholas Carter's thesis on "Automatic Recognition of Printed Music in the Context of Electronic Publishing" was completed at the University of Surrey in the spring of 1989 (see *Special Topics*).

\* Phillip Conrad is reported to be preparing a master's thesis at the University of Delaware that provides a prototype for the typesetting of music notation using the document formatting language TeX.

\* Shane Dunne anticipated the submission of a master's thesis concerned with certain aspects of music printing in the winter of 1989. His work, which was especially concerned with a mark-setting prototype for eventual distribution in C, was carried out at the University of Western Ontario, London, Ontario, Canada.

\* Matthew Fields has designed an exploratory study of analogies between formal languages and tonal musical structure at the University of Michigan. He is especially interested in analogies between constraint logic programming and musical thought.

\* Victor Fuks, a graduate student in anthropology at Indiana University, uses commercial software in studies intended to demonstrate how musical parameters are used according to patterns and priorities defined by cultural processes.

\* At the Hochschule für Musik in Essen, FRG, Barbara Jesser completed a Ph.D. thesis on "Interaktive Melodieanalyse: Methodik und Anwendung computergestützter Analyseverfahren in Musikethnologie und Volksliedforschung" in May 1989. The LIED (4178 German folksongs) and BALL (1174 German ballads) databases with which her work was concerned have now been placed in the public domain.

\* The DARMS-related research of Bruce McLean is reported in his doctoral dissertation, "The Representation of Musical Scores as Data for Applications in Musical Computing," which was completed at the State University of New York at Binghamton in 1988. Copies may be ordered from University Microfilms International in Ann Arbor, Michigan.

\* Christoph Micklish is preparing a doctoral thesis on uses of MIDI in secondary music education at the Hochschule für Musik in Essen.

\* Stephen Page's thesis, "Computer Tools for Music Information Retrieval," was completed at Oxford University in the autumn of 1988. An interactive, non-procedural query system is proposed and a high-level architecture, incorporating a database subsystem, is presented. Extensive discussion of prior efforts in the field and a substantial bibliography are also included. Copies may be ordered from the Bodleian Library, Oxford, England.

\* John Schaffer completed a thesis at Indiana University in 1988 on "Developing an Intelligent Music Tutorial: An Investigation of Expert Systems and Their Potential for Microcomputer-Based Instruction in Music Theory."

\* Michel Wallet is developing a graphics-based program for the creation of editions as part of a university thesis project at ERATTO in Paris. His program, *Euterpe*, for the Macintosh is designed to interface with musical transcription programs already operating at ERATTO.

\* Stephen Wu, a graduate student in computer science at the University of Hong Kong, is writing a thesis on rhythmic segmentation of melodies. His emphasis is on deterministic (as opposed to heuristic) methods of analysis and his orientation is toward the automatic arrangement of popular music.

Additional graduate research is reported in the applications listings.

