EDITORIAL

The dynamics of computer music

'Organised sound' – the term coined by Edgard Varèse for a new definition of musical constructivism – denotes for our increasingly technologically dominated culture an urge towards the recognition of the human impulse behind the 'system'. Such is the diversity of activity in today's computer music, we need to maintain a balance between technological advances and musically creative and scholarly endeavour, at all levels of an essentially educative process. The model of 'life-long learning' makes a special kind of sense when we can explore our musical creativity in partnership with the computer, a machine now capable of sophisticated response from a humanly embedded intelligence.

The world of computer music is undergoing rapid and demographic change. Its constituent groups include computer music specialists, commercial interests, members of the wider musical community (composers, performers and listeners), engineers, serious students of the discipline and, increasingly, members of the general public, through the increased use of computer music in the media. This change has been accompanied by a shift in emphasis within the computer music field itself.

The early days were characterised by the art of the possible. The concept of the application of techniques derived from the world of telecommunications to the manipulation of sound, which underlies so much of computer music, had to be developed *ab initio*. The equipment used was unrefined, and skilled technical work was needed to realise even relatively simple musical ideas. The result was an emphasis on technical issues, perhaps in some cases to the detriment of the development of the music itself. The activity was regarded as *avant garde* by the wider community, with the consequence that commercial interest in the exploitation of 'electronic music' was modest.

The situation in which we now find ourselves has a different dynamic. Commercial interests have identified markets in which the maturing technology can be exploited – witness the ubiquitous electronic keyboard. Further maturing of the technology needs to continue if it is to support the now sizeable commercial sector. At the same time, this process of maturation has enabled a shift towards that which many would regard as a better balance between musical and technical ideas, perhaps leading to an era where the musical ideas can predominate. The increased availability of equipment and accessible music has in turn led to an increased public awareness of the new musical genre.

The dynamic derives ultimately from this increased public awareness. As computer music moves into a wider public domain, the constituent interest groups influence the process of development in ways which serve their particular points of view. The balance of influence between these groups is therefore likely to change through the evolution of the process. For example, few would now doubt the importance of the emergent commercial sector and its attendant engineering disciplines. Yet it is unlikely that this sector can continue to grow at the rate it has recently enjoyed in the absence of a corresponding musical evolution which can sustain its growth. This clearly will involve a significant contribution from the wider musical community; an involvement which will extend beyond that of the inner priesthood of the computer music specialists.

It is perhaps interesting to speculate on the role of the computer music specialist community within this dynamic process. Amongst the constituent interest groups, it probably has the weakest link with the populist musical ethic which is presently the driving force behind the process. Any group in this position of weak linkage is likely to experience a reducing influence over the process of evolution and development of the process, and become marginalised unless access to its ideas and points of view can be improved. This would be a sadly lost opportunity at a time when new musical and technical initiatives are badly needed within the wider community. In the case of the computer music community, this does not imply that it should prostrate its art before the god of commercialism. Clearly there are musical and technical ideas evolving within this group which are potentially of great significance within the wider context, and which in the fullness of time will be capable of making a valuable contribution to the process of development, provided that the availability of these ideas to the wider community is itself developed.

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Organised Sound has its *raison d'être* in the provision of a channel of dialogue between the constituent groups active in the field of computer music. The issue of access is therefore an important facet of its editorial policy. For instance, it is intended that technical articles should be understandable, at least in essence, by non-technical readers, and similarly that articles of a musical nature should be approachable by technical and commercial readers.

Students of computer music are a particularly important target group for the journal. They will become the professionals who will be active in the constituent groups of the future, and their influence therefore has considerable potential. Their closeness to the constituent groups, particularly to the general musical public, makes them a useful musical barometer in assessing the success of the policy of access. Their particular needs are therefore prominent in the content of *Organised Sound*. There is a section specifically devoted to the publication of student papers, reporting work submitted as part of a course in computer music. There will also be tutorial articles, which when collected together will give a good overview of the current state of the discipline.

Organised Sound, then, is a journal focusing upon contemporary issues arising from the use and application of technology in music. Its editors will endeavour to ensure that all articles are appropriate for a readership which includes both engineers and musicians. Themes for each issue will be announced, but will account for an estimated 60 per cent of published articles. All appropriate material sent to the editors will be listed in the journal, whether published or not. Announcements and book reviews will be incorporated, but not CD or concert reviews. However, music will be discussed in articles, and appropriate sound examples, excerpts of works, or complete pieces will be included on the annual CD. The CD for the current volume will be sent to subscribers together with the third issue. The editors welcome letters or comments intended for publication: these may be sent by post or email to the addresses given.

In the current issue, *Sounds and Sources* is the nominated theme. In the first of a series of tutorial articles, Hugh Davies gives a broadly interpreted history of sampled sound. There is something of a Canadian emphasis in the issue: Barry Truax (Vancouver) writes about the sources, both sonic and cultural, in his work *Powers of Two*, which received its première at the 1995 International Computer Music Conference in Banff, Alberta. There are articles relating to the venerable Montréal composer Francis Dhomont: Stéphane Roy presents an analysis of Dhomont's 1982 work *Points de fuite*, and Dhomont himself writes about the origins of the Quebec school of electroacoustic composers. In the first student article, Mark Pearson presents his doctoral work on cellular sound synthesis, where natural-sounding acoustical properties emerge from a network of cells linked in a quasi-physical formation. Bruce Cole discusses music technology as an enabling medium, with reference to a workshop-based composition project for people with special needs. Finally, Stephen Pope writes about the object-oriented paradigm in musical computer programming.

The Editors believe this journal represents a step towards better musical and technical intercommunication in our field. We hope that *Organised Sound* will come to be an essential platform for debate, promoting ideas and developments in the years ahead.

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