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Remarks on Computer Music Culture

Years ago, in the founding days of ASCAP, Richard Rodgers, composer of countless wonderful showtunes, is reputed to have cast "serious" (ASCAP's term to indicate art as opposed to entertainment) composers in the collective role of the research-and-development department of the music industry. And it does seem to be true that in the industry of electronic music, the research-and-development department has influenced the popular music division in different ways. Many pop-culture groups have acknowledged a background in the electronic music classics, many popular-music composers listen seriously to "high-art" electronic music, and many commercially successful ideas and technologies have grown out of the "serious" music world. Sampling is rooted in the tradition of *musique concrète*, for example, and frequency modulation as a sound-generating technique was a product of computer music research.

Lines of influence occasionally seem to point also in the other direction, from popular music to computer music. Some computer music composers have incorporated popular elements such as jazz standards and folk tunes in their music and, far more important, some composers have reinterpreted the dynamics of jazz improvisation into the framework of performance with interactive systems.

In whatever direction influence flows, however, it is not surprising that composers of one type of music might take ideas from other types of music. But at this particular moment in the history of computer music, the flow of ideas between high art and popular art seems to have a particular significance. Indeed, the protective parapet that has long kept high art and popular art mutually exclusive seems to be showing signs of vulnerability. It seems that we are about to enter a new cultural architecture that we cannot yet describe; yet we are aware that technology is changing the world and that it will also change the world of computer music. The first question is, "Where are we now?" The second is, "How is computer music likely to change?"

Computer music (which I would define here as the type of music made with computers by the sort of composers who read *Computer Music Journal*) and popular electronic music (i.e., dance, techno, house, etc.) currently exist within different cultures. They are aimed at fundamentally different publics, and their practitioners exhibit different motivations and methods for achieving success. Music is communication, and every composer communicates with an intended public, real or imaginary, that inhabits the same culture in which the composer lives. It is a composer's culture that determines the nature of that composer's music, the nature of the public that listens to it, the meaning of success, and the methods employed by the composer to achieve success.

What, then, characterizes the current culture of computer music? First, computer music is aimed at an elite group of listeners that constitutes a segment of aristocratic high-art music culture. The elite group of listeners is small in number—smaller than the elite group that appreciates Wagner, for example—because the technology and the artistic concepts that have grown out of computer music are so new that a larger elite group has not yet had the time to grow. Second, computer music is appreciated primarily in aesthetic and intellectual terms. In listening to computer music, an audience must be quiet and attentive. Third, computer music is consumed by its public in concert or concert-like situations, where the public listens without participating, thereby indicating its recognition that a performer (or a surrogate performer in the form of loudspeakers) has a higher level of expertise and virtuosity. Fourth, innovation—both artistic and technical—is highly valued. This does not mean, incidentally, that every computer music composition is innovative. Exceptional composers will produce exceptional work, but the normal practice of computer music,

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as in the normal practice of any art, is normal precisely because it is unexceptional, produces nondistinctive results, and is practiced by a majority of practitioners.

When the focus of particular compositions is on acoustic instruments or chamber music (as in Pierre Boulez' *Repons*, for example), computer music is sometimes performed within the mainstream culture of 20th-century art music and, consequently, addresses an audience larger than the specific public for computer music. In general, the insertion of computer music into other art cultures—for example by creating technology-in-art interactive installations, incorporating elements of jazz or folk music, using sound in the context of acoustic ecology, or using recorded sounds as geographic documents to identify and characterize places—also extends the public for computer music. But at this time in the history of the field, most of the computer-music public consists of practitioners, which means that the relationship between composer and public is more collegial than commercial; that the motivations of composers are oriented not towards commerce but towards a combination of self expression, artistic fulfillment, and collegial recognition; and that composers' methods for achieving success reflect an aristocratic disdain for commercial effort, even if they occasionally involve negotiations within the network of organizations that define the formal structure of the computer music community. From a historical point of view, the net result of these non-commercial dynamics is that composers of computer music do not seem to enjoy subjecting themselves to the pressures of the commercial world any more than is necessary, and they are often able to benefit from the protective environments of universities or other noncommercial institutions within which they can experiment.

Popular electronic music, on the other hand, exists within a commercial entertainment culture. A song or a performing group is in effect a product designed to be immediately successful within a targeted segment of the mass market. Further, immediate success demands involvement and participation by the public. It follows that popular electronic music is consumed by its public primarily in clubs where the public participates by dancing and that it is appreciated more in physical than intellectual terms, as in these remarks by Bennington College students: "You can hear it, but bass allows you to feel it." "You can't deny the physiological effect of a rumbling bass going through your entire being. No one ever asked for more treble." And popular music conveys the sense to a public that "you" could have composed it: "It's predictable. You feel like you're doing it." In such a cultural environment, innovation is undesirable. But the negative value placed on innovation does not mean that every popular song is unexceptional. Innovation may be detrimental to immediate success, but a sound or a rhythm or some aspect of the music that is distinctive enough to get attention is certainly to the point.

The public for popular electronic music is primarily a consumer (as opposed to collegial) public, which means that the relationship between composer and public is commercial; that the motivations of professionals are a combination of fame and financial success; and that professionals feel no disdain for commercial activities, such as promotion and advertising, in pursuit of worldly success. One must remember, however, that the commercial world is not entirely devoid of creativity or artistic satisfaction. Makers of products feel rewarded when they do something they consider beautiful. They feel even more rewarded when their product pleases a large number of people and produces significant financial returns. However, sadly—from my perspective—one might observe that pleasing a large public and producing large financial returns are not the usual rewards of originality in the arts.

Of course, these never-the-twain-shall-meet descriptions of computer music and popular music cultures do not describe every musical culture or every composer. Many composers have migrated from one culture to the other, or jumped back and forth, or established themselves somewhere in between in a kind of "mid-culture" state that represents the type of music that seems like high art to the middle class. Yet the contrasting cultures of high art and popular art reflect the antipodal extremes of a social and cultural order that has been

in existence in the western world since the Renaissance.

Aristocratic culture, traditionally based on exclusive knowledge and skill, is now changing, and computer music is changing with it. It is well understood that by providing universal access to knowledge that earlier was available only to an educated few, technology is having a democratizing effect in the world. What is less well understood is that technology can allow a member of the public to interact in a sophisticated and creative way with a musical process, even without previously acquired musical knowledge or skill. Rather than invest years in learning to play the violin, for example, a member of the public can perform by adding expressive nuance to a computer process which generates notes from a list and plays them sounding like a violin. Alternatively, a computer can translate mouse gestures into controls for algorithms that themselves generate sounds, or it can generate unpredictable musical information with which a member of the public can improvise by, for example, moving a finger on a touchpad.

Computers, in other words, are not surrogate violins. They are interactive devices. Consistent with general technology-driven changes in the world, computers give us an opportunity to democratize high-art music by making it participatory, and, as a normal consequence of participation, to expand the aristocratic culture so that it is no longer aristocratic. The challenge for computer music composers in the near future will be to use their elite knowledge and skill to create situations in which members of the public without that knowledge and skill can participate meaningfully in a musical process. I have no doubt that computer music will take this form in the future, that future composers will be able to think of large numbers of ways to create interactive compositions, and that a major literature of interactive music will form—much of it intelligent, musical, and representative of a new approach to high art.

The potential social benefits that will accrue from this reorientation of computer music culture, in which computer music composers will indeed interact with a large public and deal with commercial concerns, will have more to do with universal musical creativity than with an acceptance of popular electronic music culture. At some point in the future, the antipodal positions of aristocratic and popular culture will no longer describe the music world. We are entering a new cultural landscape, not based on aristocratic and popular traditions, and we have not yet found a language in which to describe it.