MUSIC TECHNOLOGY AS A FORM OF PARASITE

David Zicarelli
 Opcode Systems, Inc.
 3950 Fabian Way
 Palo Alto, California 94303
 email: zicarelli@well.sf.ca.us, ddr@csms.stanford.edu

What is interest? Our wise language says it unequivocally: it is that which resides between, situates itself in the interval. Between me and whatever is out there resides interest. The bowl is interesting, it stands between the mouth and water: chalice, beaker, precious vase, pedestal, & moves. Who is the king? The most interesting person in the world! Power is that much greater in that it intervenes everywhere. And if one becomes the greatest, then there is no place, no time when one does not intervene. Power is therefore what is most interesting.1

— Michel Serres, Detachment

Computers are located in the space between a subject and an object, between subjects, or between objects. They tend to address relations rather than substance. As the bandwidth of human-computer communication increases, the computer occupies more and more of this space, culminating in the almost total sensory interruption achieved in virtual reality.

The occupation of a space for the purpose of redirecting the relations that flow through it is one of the attributes that describe a parasite as defined by the French philosopher Michel Serres. I am interested in how Serres’ theory of the parasite might address the structure and effects of the movement of computer technology into music. In his book The Parasite and other works, Serres constructs a logic common to the three contexts in which the word parasite is used in French: biological, social, and as static or noise. We will concentrate on the first two meanings in this paper: the last has been developed elsewhere.2 Serres’ use of the term is admittedly ambivalent, but he sees the parasite as a necessary ingredient in stirring things up, acting both pathologically and as a source of a system’s evolution and renewal.3

This ambivalent logic reflects a common sentiment about music technology: on an individual level it generally seems exciting and indispensable, but on the level of the collective it seems unsatisfying, even disturbing. Some have argued that to think properly about technology one should only consider collective effects, discounting that technology is necessarily seductive on an individual level.4

PARASITE:LOGIC

Think of the space between intention and realization (or subject and object) as a cultural gap. The parasite moves in to occupy many such gaps. Or actions of past parasites have biased or inclined states of affairs, opening gaps for new parasites to fill. The action of the parasite is always local, but with unanticipated non-local effects. Indeed this locality of focus is what creates the complexity of the collective, and why the goal of a totally ordered system is to “clean the space” of parasites. Serres sees chains of parasites, always chasing each other out of a space. There are a number of techniques for doing so: one involves making a space unbearable for others, such as the production of a loud noise or an objectionable odor.5 A phenomenon well-known to urban Americans is the sound of cars equipped with sub-woofers in resonant cavities. The space inside the car and its immediate vicinity might be unbearable loud, but it is undeniably thanks car owner’s territory.

One can also occupy a space of power through improvements in productivity. After an easier method is introduced, the old way becomes unbearable. As a result, you submit to the new method if at all possible. Have you ever had to go back to using a slower computer, and wondered how you could have possibly survived with it?

In many cultures, music is not considered a difficult activity (just as we take it for granted that people will learn to speak a language), but the historical action of parasites moved Western society to a point in the late nineteenth century where the opportunity for firsthand involvement with music was relatively rare. Such a situation—a clean space—fueled the development of the recorded music industry, which intercepted this desire and directed it toward the purchase of copies of local experiences. But the collective effect of local consumption was the production of a different look: the contrast between the apparent perfection of the recorded performance and one’s own faltering technique. This gap is now being filled with

69
computer-based music technology which provides the experience of playing one's "own music" at relatively low cost, both in terms of time and money. The gradient of commitment now directs musicians away from high-investment "low tech" instruments such as the saxophone and toward low-investment home keyboards and personal computers. The space of commitment formerly occupied by teachers, instrument builders, and most of all, performing musicians has been taken over by technologists working in offices. When you see how "easy" it is to make music with current technology, the prospect of spending ten years just to get a good sound on the saxophone becomes unbearable. One parasite chases another out.

If we step back a moment, it seems strange that our society would move in a direction of "replacing" musical work with office work. There need not be an "office" interest group fighting a "music" interest group—musicians continue to pay their instruments, but it has become more difficult for them to participate in the game that makes their work the basis of an exchange relation. People want to hear music, but they have created care whether or not musicians play it.

The more important work is not directed at music-making, but what might be called "musician-making," the assumption of an increasing share of the musician's commitment. This transformation of what counts as musical work extends even to the musical performance itself, as evidenced by a recent tour by the rock band U2.

The Zoo TV tour, numbers at least 108... It takes this crew approximately 12 hours to set up the stage, so if the next show is the next day, a separate crew is already at work in the next town, setting up a duplicate set of rigging at 3:00 AM, while the crew in the previous town is engaged in packing it away... A good portion of that 100-person crew is comprised of management, accountants, publicists, private security, wardrobe staff, carpenters, drivers, and so on. All these are jockeyed in as many makeup offices as a given venue will have space for.

The image of the office extends to the kinds of "instruments" the technological musician uses today: so-called "workstations" or "desktop music production centers." The effect of moving of the site of musical work to the desk is to reduce the physical effort required for music making to that of word processing. The atention of one's body to the instrument used to be the incitation that musicians could leverage to be the guests of culture, but technology increasingly seeks to make its work, essentially computer programming, which makes the collective desire as a basis of exchange. At a technology company, musical labor is only valued to the extent it can demonstrate, test, or design products: this is the direction technology endeavors to take the culture at a whole. This is the parasitic logic where the "host becomes the guest of the guest."8

Are technological musicians more productive? Serrès argues that "production" is a relatively rare event in history. Perhaps what has happened is that reproduction has gotten easier. Use of sampling, sequencing, and access to data bases of sequenced music or synthesizer patches eliminates more and more of the need for origination in the "real music" end product. Those who argue that musicians should do more of this work themselves begin to be seen as hopeless romantics. How many parasites in the chain must you eliminate to that your work becomes completely original? Clearly, no musical work can even begin if the musician is required to design and build his own equipment and software. With "professionals" now devoting their careers to these problems, individual pursuit of one's technological means becomes "dabbling" or "a hobby."

Sampling is an instance of the asymmetry of parasitic exchanges. The biasing effect of such an exchange disrupts the established craft territories: in economic terms, fewer musicians are needed to make the same "volume" of music, leading to high unemployment levels among instrumentalists. Musicians who face this situation by becoming technologists are clearly compromising to the refinement of the technological art while technology does not necessarily refine the musical art—given its undermining of the musician's cultural exchange value. The parasite makes the host work to the parasite’s advantage, which may or may not be in the host's advantage. Technology is self-perpetuating to the extent that is capable of creating asymmetries, gaps, and biases, which can most logically be filled by more technology.

AMATEURS AND COMMITMENT

Technology makes it possible to organize music so that fans of specialists can treat it as a product. Creative input is stripped to its most minimal terms, freeing the new "professional" artist to pursue an MTV or acting career. Given the level of productivity such a team can achieve with the parasitic technology mentioned above, "music" becomes more mobile and moves into more and more spaces, becoming a "data type" and a signifier, and less a form of cultural organization.

70
A situation in which there are a large number of amateurs composing their own music has been identified as a future stage of musical organization, and some find this an important cultural evolution. In any case, the obvious beneficiaries of such a trend are the makers of the tools needed to mediate such activity. Given the sales of items such as music software, home keyboards and four-track cassette recorders, it is pretty clear that the new generation of amateurs are generally not learning to approximate the flute repertoire; rather, they are composing with the technology, and composing is not a big deal; it is now casual "fooling around." This poses a challenge to the established system of publishing rights which is heavily inclined toward the composer (the previous parasite) at the expense of specific performances.

Technology has become what is "interesting" about music to amateurs, because it stands between them and their desire to emulate recordings. They might be interested in directly touching music, but technology allows them a step toward their goals without any sort of commitment to a life of musical practice, so technology is all that is touched. Music-for-amateurs is a short timid step beyond, say, learning to play a Nintendo game. Sure there may be skills involved, but they are worthless without surrounding oneself with the accumulation of technology needed to exercise them.

This can be summarized by the following role: the more technological context needed for a skill, the less the skill transforms the person having it outside of that context. Put another way, the commitment involved in musical praxis is pretty much a constant. The greater the commitment of people, resources, and effort on the technological side, the less you will find on the "musicians" side. As we shift to bureaucratic, office-based music techniques, music's "effort" includes the effort that goes into getting a robot to assemble a plastic keyboard.

Keyboard assembly factories are certainly committed to their own agenda, which includes standardization and profitable use of resources. Does this agenda coincide with that of musicians? The logic of the parasite tells us that the musician's agenda is just a non-argument. As long as there is enough overlap between hosts and guests so that people buy the factory's keyboards, this is sufficient. Thus, while the musician's "use" of technology may be couched in terms of "greater control" whatever control he has left at the end is perhaps less than he had before employing technology. But the ratio of control to personal commitment is now higher.

THE PARASITE'S DISGUISE

Much of the effort expended in the music technology field is directed toward imitation of "existing sounds" or a certain musical capability such as expressive performance or improvisation. By making a computable form of imitation, there is to be an advantage in terms of malleability or management. Serres reminds us that imitation is crucial to the operation of the parasite.

To avoid the unavoidable reactions of rejection, the (biological) parasite makes or secretes tissue identical to that of its host at the location of contact points with the host's body. The parasitized, abused, cheated body no longer reacts; it accepts; it bends to its demands. The parasite plays a game of mimicry. It does not play at being another; it plays at being the same.

Does technological imitation of the "pre-technological" serve an analogous purpose? Is it seems only natural that anybody developing a technology would take something already musical as a starting point. And it is not difficult to see our computers as chains of impossibly "languages", "desktops", even allusions to previous technologies such as "patches." Imitation allows imitation—the lack of rejection by the host. We have already mentioned that the host is the consumer. On the local level, the consumer likes the guests, but this again is the mark of the parasite's trickery at playing the game of imitation. The consumer feels he has his own agenda, that the technology is serving him, but this refers to the consumer's "immediate" needs; the point of contact: the parasite does a sufficiently good job at playing the "being the same" game, and the musician is tricked into devaluing his own work in favor of technical work.

The parasite is now in a position to "cut off dialogue" and "intercept relations." Much of the attraction in computer-mediated productivity is a movement toward autonomy: I don't need to depend on someone else to perform my music, type my memoirs, copy my parts. It is often easier to manage a machine-like process than to deal with other people. This may result from machine parasites which are doing a better job at "playing at being the same" that those who were living off you before.
Composers explain their attraction to the computer by saying they can get their music played without having to deal with the hassles of rehearsal, poor performances, or inept recordings. Perhaps they will employ just one other person will play an instrument: the will be played by the composer plus his accumulation of many professionals' work and commitment condensed into the tape accompaniment.

The musician's new relation with technology are not necessarily free of frustrations. It seems to bother more than a few people that systems are not flexible, appeal to the demands of the pop musician, or are not properly "supported" by the manufacturer. With technical support a remaining point of resistance, the ultimate goal for technology must be to become the perfect parasite—"invisible" in the words of Alan Kay. Invisibility meant that an other has become so incorporated into the body that it is excluded from externality. There would be nothing to support, because there is literally nothing that figures into one's use that seems like an artifact. In other words, the artificial has become natural.

Many such artifacts—musical instruments come to mind—are much admired. One might argue that computer music technology will achieve "maturity" when it becomes as natural as musical instruments. Does this means simply to produce digital imitations of existing musical instruments which are played manually, such as the Casio DH-100 saxophone? Or will it be the multiple use of computers that technologists strive to naturalize; those uses that most resemble the work of the office—control, record keeping, automation? Depending on one's perspective, there is either a challenge, or a double-bind. Should office work be hidden inside artifacts that resemble musical instruments, or should musical work be hidden inside artifacts that resemble office equipment? In either case, the logic of the parasite is at work.

**CHAO S OR STABILITY?**

Is the parasite the instigator of order or disorder? Paradoxically, it is both. For the parasite does not transform a system as much as borrow it through differentiation and inclusion. If the infection is toward order, then there is the establishment of stability, represented by the changing of parasites from a space (by another parasite). But once the space is clear, the opportunities for multiplication and growth of a mimetic and disruptive "parasite" are increased.

In considering the theory as it applies to music technology, we can see both types of interest at work simultaneously. On the one hand, there are the locally exhilarating disruptions of the musical order, which seemingly accelerate the proliferation and integration of musical styles. On the other hand, we have the assertion of a bureaucratic methodology which undermines the wider cultural value any particular "style" can have, subordinating music to the regime of official interests. We might wish to favor the disruption and renewal of the multi-cultural playground while seeking to eliminate the bland order of the office, but it is indeclicable which of these alternatives our well-intentioned but necessarily parasitic actions will favor in the end.

**NOTES**

5. Serres, The parasite, pp. 139-146.