

# **FleshMotor**

## **by Dawn Stoppiello with Mark Coniglio**

### **/ (Slash)**

When considering how to describe my work here, I am immediately drawn to use a term that my collaborator Mark Coniglio invented several years ago: Slash (/) Artist. The term grew from a time when all of the artists that we met seemed to describe themselves as a "dancer slash performance artist" or "poet slash technologist slash actor" or some other similar string of métiers separated by the all integrating slash. What these people were trying to say was that they were attempting to hybridize multiple forms into Some-Other-Thing that they could not, as yet, put words to. This is the way I have felt as I have attempted to bring my primary métier of dance together with media and technology over the last ten years.

Through this process my choreography has changed in response to my close contact with computers and computer controlled devices. As a choreographer and dancer, my relationship to the world begins with my relationship to my body. As an artist working with computer technology, my relationship to the world is filtered through a hyper-river of bits performing multiple operations in parallel as they flow madly through computer space/time. This duality has infiltrated my choreographic sensibility. It manifests itself as accumulative phrases that are orderly, repetitive and organized, like a program, but that are interrupted by material that is completely human in its unpredictability and occasional violence. This duality, between what is most human and what is most machine, has become the inspiration for much of my recent work.

This human/machine dialectic is widely apparent in our time. Insulating technologies such as computers and the internet have become integral parts of our lives. My generation is the first to grow up with the television always on. We have seen the body projected into space, we have seen it explode, we have seen inside it, we have seen it completely altered. We have looked out from TV-space and seen that same body slumped motionless, in near decay on the couch. We have been enticed by the perfect TV body - no smells, no secretions, no flaws. We live with the neurosis of wanting to obtain that simulated perfection through intellectual escape into screenal lands where such a body can exist. We try to keep up with that image by absorbing products that relieve us of smell, hair and fat in some vain attempt at immortality. Technologies that allow us to connect without touching keep us in blissful denial of our bodily imperfection. Yet, every cell knows that it will eventually rot, decompose and return to the earth from which it came. I have concern for this confused and displaced body.

So, I am a choreographer slash computer media artist. The slash, the intersection of flesh and silicon, blood and television, body and computer is the place that I find my work at the end of the twentieth century.

### **+ (Plus)**

Of the several works that I have collaborated on with composer/computer media artist Mark Coniglio over the past several years, perhaps the most important for us both was In Plane. This

piece was seminal in the development of our thinking about the relationship of the body to technology as an aesthetic idea, as well as the technological innovation required to realize it.

We have used many varieties of homemade and commercially available sensing systems in our performances but the most sophisticated is MidiDancer. Mark first had the idea for this device while we were both students at California Institute of the Arts. He had been inspired by "Hungers" a collaboration between his mentor Mort Subotnick and video-artist Ed Emshwiller. In that piece, singer Joan LaBarbara controlled MIDI synthesizers using a small baton that responded to the way that she moved it through the air. Mark was immediately inspired to attach this device to the leg of a dancer, but was discouraged by the wires needed to get the information to the computer. So he envisioned, and shortly thereafter implemented, a wireless device that would allow a dancer to make music with the movement of her body.

The first MidiDancer system was built for a collaborative project at CalArts in which Mark and I took part. The original device was quite primitive. It was made from radio controlled car transmitters. Attached to each transmitter were two sensors in the form of metal levers that we taped (at the loss of much body hair) to our arms and legs. Each sensor measured the flexion of a joint, and sent that information via the radio transmitter to a computer where it could be used to control music synthesizers.

The piece we made was for four performers, each of whom was wearing two sensors, one on the elbow and one on the knee (four individual MidiDancer systems in all.) The idea was to give each dancer two sounds to control, one on each sensor, that would stay the same during the course of the piece. Our hope in keeping this fixed relationship was to create a kind of sonic identity for each dancer that the audience could recognize. After creating material separately, we came together to work with the dancers and quickly realized that this one to one relationship, one gesture producing one (and only one) sound, did not make for a rich composition either as dance or music. We came to call this technique the "bleep-bloop" method, as this is all that the first attempt ended up being, i.e., a series of bleeps and bloops in conjunction with the robotic choreography required to trigger the system. We were disappointed that the piece lacked the kind of complexity and subtlety that we had envisioned and knew right away that we were going to have to try again.

What we didn't know at the time was that, in that moment, MidiDancer had changed the way we thought about composing. In retrospect it should have been obvious that we had begun to compose for a new and unfamiliar instrument, and that, of course, the artworks that we made with it would be directly influenced by its nature. For one thing, it was clear that we could not work in isolation when creating our materials, but instead needed to work collaboratively on both sound and movement. We didn't know the instrument well enough to imagine the outcome, and we needed to really see and hear it happen. Also, we found that the physical gestures required to play the instrument were not inherently interesting or meaningful as choreography. To understand what I mean, imagine for a moment that you are watching a great violinist play. You may choose to watch her fingers move along the neck of the instrument, but I don't think that you would expect those same finger movements to give you any dramatic information about the piece. We were faced with a challenge: the dancer needed to simultaneously make both meaning

and music with the same movements. This is a problem that became even more complicated as we added other media into the mix.

## **++ (Plus Plus)**

In the summer of 1990 Mark and I first collaborated with Kit Galloway and Sherrie Rabinowitz at The Electronic Café, their performance space/lab in Los Angeles. In this pre-internet world Kit and Sherrie pioneered the use of various kinds of telecommunications links to create live artworks between distantly located sites. At this time one of the most common ways for them to get video between cities was a slow-scan, hand held, black and white video phone. Mark and my experience with that device would begin our next series of insights regarding the combination of dance and media.

Tactile Diaries, our first collaboration with Kit and Sherrie, had performers at The Electronic Café and the NYU Television Studios in Manhattan performing together using slow scan video phones and telephone grade audio connections. One section of the piece was a solo that I performed using the MidiDancer. In this section, Mark programmed the software to trigger the videophone when I made a particular shape with my body. It would capture an image of my performance in Los Angeles and then send that image to New York. At the other end, the still image would arrive on a television monitor, slowly scanning in from top to bottom over a period of five to ten seconds. I carefully chose all of the movements that would trigger the video phone because these would be the only representation of the dance that the New York audience would see. I became very interested in selecting body shapes that, when seen in sequence in New York, would create a different narrative experience from the one that the live audience would have in Los Angeles. It seemed essential to find a way to have the choppy, low-bandwidth video express something different than the full-bandwidth (live) dancer could provide. What was important about this approach was that it emphasized what was distinctive about the technology and provided a different way of seeing the dance.

The use of video in this piece introduced me to a new theatrical element (i.e., beyond sound) that could be manipulated with the MIDI data coming from the MidiDancer. MIDI was no longer just an acronym for Musical Instrument Digital Interface or simply a word in the name of our device, but now represented to me a pathway that would allow my gestures to control basically any media device.

My understanding of how extensive these pathways could become expanded further when I saw Steina Vasulka during a lecture/demonstration at the Electronic Café some months after Tactile Diaries. I was watching Steina use her MIDI Violin to "play" a computer controlled LaserDisc that contained video images of water, fire, bubbling mud and other natural environments. The MIDI information was used to randomly access specific frames on the disc, to play forward or backward at varying speeds or to freeze on a frame with no distortion of the image. The flexibility of the LaserDisc, as demonstrated by Steina, was extraordinary and Mark and I were instantly taken by its possibilities.

Soon after this demonstration, these influences came together as we developed the initial plan for what would become In Plane. Our idea was to make a video tape of me dancing, transfer it to

LaserDisc and then to have me control the playback of that image using the MidiDancer. We wanted to create a duet between me and a "virtual" me stored on the LaserDisc. This duet was appealing because it emphasized something that was of growing importance to us: the duality between the fleshy body and another body which we didn't have a name for at the time, but that we later came to call the Electronic Body. The corpus and its electronic dopplergänger became characters that would find their way into several of our future works.

**\* (Asterisk)**

As I mentioned earlier, In Plane was a seminal work for us. It was not only our most technologically complicated piece but, more importantly, it became the cauldron in which we synthesized the theoretical paths that we had been on for the past four years.

The piece was to be a competition between the corpus and its electronic dopplergänger, a body that bleeds, sweats, gets tired and feels pain versus a body made of light that is not bound by time, space or gravity. I became the fleshy presence, while my video image, stored on the LaserDisc, was my electronic counterpart. Which was the more powerful and beautiful presence? The flesh and blood woman exerting herself to an exquisite extreme with the potential of physical failure at any moment? Or, was it the ethereal video body who flies so gracefully through space, can freeze in mid-air and never tires? This was to be the essential question posed by the piece.

On a technical level, we wanted to my gestures to control the musical score, the playback of images from a LaserDisc, the movement of a robotic video-projector, and the theatrical lighting for the piece. We realized that this was ambitious, but we wanted to see how far we could go. We wanted to find out how much one performer could play.

We began our work by collaborating on choreographic and musical materials that echoed the traits of the two bodies. The music, representing the electronic, was comprised solely of sampled sounds of machines while the choreography, clearly representing the corporeal side of the equation, was constructed from a fundamentally human movement vocabulary consisting of running, jumping, falling, and rolling.

These movements were consistent with my stylistic leanings. I am not too concerned with taking a gesture through all of the compositional gymnastics required to expose it's many possibilities for interpretation. Instead, I want to guide the audience through the energy of the movement itself. I want to see the relationship of the performers on stage. Of course, In Plane is a solo if you only count the number of fleshy bodies on stage. But it is actuality an ensemble piece because I consider video, sound, robotic set pieces - whatever - simply to be additional performers. The beauty of using the MidiDancer system was that the notion of a duet with the video was much more than a conceptual idea but was in fact the result of a tangible physical relationship: body -> sensor -> video.

And, like dancing with a live performer, this was not a one-way street. During the process of creating and rehearsing In Plane I became acutely aware of how information would flow back in the other direction. I would see the video move in response to my gestural control and my

dancing would be influenced by my "playing." Mark prefers the term reactive over interactive because he claims that it is more true to the actual flow of information, his point being that the computer does not have the intelligence of a human being and cannot interact in the truest sense of that word. As a performer who feels the feedback loop that I describe above, I feel certain that I am interacting with something, even if the modulation of image and sound originates solely with my own gestures.

In setting out to create these kinds of performative relationships, one thing was readily apparent: the radio-control car transmitter and dual sensor design was not going to allow us to make the piece we had in our minds. Mark created a new MidiDancer with a significantly smaller transmitter box and eight thin, flexible plastic sensors that could be placed at almost any joint on the body. When I first danced in this new costume, the difference in my movement was immediately obvious. It was less restricted and more fluid because the new design allowed it. We realized how much the sensory device imposes its own limitations on the choreography. Every instrument needs to be played in a particular way to get it to sound, and the MidiDancer was no different.

Traditional instruments respond to gestural input in a consistent way, and the audience can generally come to understand that relationship, even if the instrument is unfamiliar to them. Based on this traditional model, we felt a certain pull to establish a clear relationship between my movement and the media I was controlling. But we both remembered how stifling this fixed relationship was in the first MidiDancer performance we had given at CalArts. Further, this time, I wanted the choreography to serve my aesthetic intention first and the requirements of the sensory device second, something that was already easier to accomplish with the more sensitive MidiDancer. So, we chose to allow the possibility of a joint changing its function during the course of the performance. For example, in the first section of the piece the angle of my elbow directly controlled the volume of a rhythmic musical phrase. In the next section that same elbow movement would trigger the playback of a video sequence. We chose to sacrifice the audience's clear understanding of the instrument in order to keep our expressive options open.

In the end, there were a myriad number of lessons learned as we made *In Plane*. Each day felt a bit like my first dance class, overwhelming because I was not yet familiar enough with the instrument to keep track of all of its parts. But perhaps the most important experience for us both came late in the creation process, when the elements had begun to coalesce. There was one rehearsal in particular in which I felt that the LaserDisc images weren't just some external object to which I was weakly linked via some sensory interface. Instead, they started to feel like a hand, or a torso or some other part of my body. The media wasn't separate from me any longer, it was an extension of me. Which was curious in one sense since my video counterpart, with whom I was supposedly having a fierce competition, was actually under my control all the time. Perhaps this is the hidden message of *In Plane*.

## **= (Equals)**

As a dancer I inherently understand the realm of the body. I had no idea that technology would enter into that understanding until I chose to entwine myself with the machine. I was altered, and so was my body as it expanded to include sound, light and image. The slashes in my art are

inserted between my flesh, the media that moves with it, and the machine that locks the two together. And this puts me at the intersection of flesh and silicon, blood and television, body and computer that our culture is in the midst of splicing together.