

LAETITIA SONAMI: *HAS/HAD*
(1997)

Has/Had is a live performance computer piece that uses the *lady's glove* controller of my design to map my hand and body gestures to the control of sound material and rhythmic structures.

The musical chore of *Has/Had* is based on unstable rhythms; a playful wink at the stability and predictability of techno music and its variants which now dominate the popular music scene. These rhythms are on the verge of collapse and go through various transformations until they finally disintegrate only to reappear towards the end as a vague memory passing by and accompanied by broken words ("a/avait" in French for "Has/Had", a reference to the impermanence of perceptions) and followed by remnant messages which gush in as a final and desperate attempt to say something and imprint messages when these are irrelevant and empty. The same way the mind tried to re-create stability in the rhythmic material, it tries to hold on and perceive meaning in these empty messages. The form of *Has/had* is a long structural decay. The energy at its beginning is the spring board that launches the unraveling in time of its disintegration.

The performance aspect of the piece is based on the idea of control and/or lack of. After having been asked repeatedly and sometimes ironically whether the controller I had designed allowed me perfect control and answering by suggesting that tightness of control was only relative to the musical material used, I decided to create a piece which would exaggerate this tension. I wanted, as well, to play with our natural tendency to ascribe structure to events even though they border on chaos and so I applied control to a continuum between order and chaos.

The glove fits tightly to the arm, like a new layer of skin. The slightest motion of one finger affects the sensors on the other fingers and wrist, creating an interdependent system of controls. These are usually isolated in the software but here they are kept as

a web of controls. Thus, while the sensor on one finger joint changes the duration of the notes of one drummer, the others are automatically affected and control secondary musical parameters, which might influence my original intention and force me to adapt to these unforeseen changes.

The rhythmic material in this work is represented in terms of a framework developed at U. C. Berkeley's CNMAT by the rhythm group (see <http://www.cnmatic.berkeley.edu> for technical details). Here I implemented the rhythmic representation in MAX and arranged things so that I had direct real-time control over the perceptually salient features of the rhythmic structures used by each of five virtual "drummers". Various metrical structures were used based on 3, 5, 7, 9 and 12. The *lady's glove* controls these beat patterns for the drummers (as the hand moves down, the patterns are smaller, the same way a ball bounces faster when closer to the ground), the sets of representations are selected with micro-switches on the tips of my fingers, the durations of the notes are controlled by bending the fingers, and the set of instruments these drummers play and their pitches are controlled by the distance between both hands. Extraneous sounds such as the voices, birds, waves of distorted breath, throat sounds are controlled with more evident gestures, for instance, the sharp breath sounds occur when the hand moves away from my mouth, "throwing" these sounds in front of me.

On a technical level, the *lady's glove* with its 16 sensors (including two ultra-sound distance measures, an accelerometer, eight flex sensors, a pressure pad, four Hall effect transducers, and discrete switches) is connected to STEIM's SensorLab which in turn sends MIDI data to MAX software which controls the sampler and FM synthesizer. A set of MIDI foot pedals adds extra switching control. When performing, I stand in center stage, about 9 ft. away from my equipment to which I am connected with one cable from my waist. The only visible piece of equipment is the *lady's glove* I wear and which is highlighted by sharp beams of light.

Has/Had is between 11 and 15 minutes and will eventually be extended into a full hour performance that will incorporate automated objects and MIDI-controllable video. The texts are by Melody Sumner Carnahan, who resides in New Mexico and with whom I have collaborated for the past 15 years.

 Note to the Jury: Please view video N134
first. *Has/Had* is a live performance
computer piece. The video documents a
performance given recently in Berlin. I am
 submitting a **supplementary DAT tape**
because the audio quality of the video is not
up to the standard I obtain in performance.
The audio tape is a studio representation of
an actual performance.