Jon Leidecker (aka Wobbly): Remove The Instrument
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The early Electronic Music project studios emerged in the middle of the 20th century. These studios, filled with the engineering tools designed to capture a recording of a real-time performance, had evolved into complex instruments capable of emitting new sounds and enabling new musical structures: the studio was the instrument at the center of the slow transition from Classical to Popular modes of composition and performance. But there was a hard compromise to make: these studios were not portable. And their complexities required assembly: these compositions could only exist as recordings. Anything was possible, as long as one accepted a form of music where the human contribution to live performance had been entirely automated away.

Over the following decades, those who were unwilling to stay inside this new instrument ended up designing their own. Laetitia Sonami was chosen by electronic music as a teenager, in 1975, at the Boston Museum School of Fine Arts — with her first glimpse of their music lab's VCS3 'Putney': an early, portable, gig-friendly synthesizer, notably featuring a patchable joystick controller, allowing for gestural control of the sound. What would become lifelong questions snapped into focus: how does electricity make sound? Which movements control which sounds? Looking for access to similar equipment after returning home to Paris the next year, she found the doors of the larger studios closed to anyone without Conservatory degrees. Luckily, a friend of the family who worked for Shandar Gallery happened to know someone who happened to own their own synthesizer, and arranged an introduction.

That someone was the composer Eliane Radigue. Sonami remembers her saying: "I don't teach… but I can let you come three times. And we'll see what you like." The teenager was left to her own devices with Radigue's formidable ARP 2500 while the composer went about Tuesday errands, and at the end of the day, they talked about anything but music — Egypt, astrology, Buddhism, life. Eliane's compositions never came up — but, inspired by Eliane as a person, Sonami began to understand herself as a composer as well, and she continued visiting and working in Eliane's studio for another year.

Eventually her mentor advised her not to expect to get very far in Paris: go back to America. After a brief stay at Joel Chadabe's studio in SUNY Albany — a sprawling Moog modular, rack after rack — further advice came from Eliane: go to the other coast, specifically Mills College in Oakland. Accepted without a degree by Robert Ashley, she found herself working on an MFA at Mills' Center for Contemporary Music during one of the most vital periods in its long history with Robert Ashley, David Behrman and Terry Riley. While struggling in CCM's studio to realize 'finished' versions of her pieces, she found herself in live performance: with a four-track cassette mixer on stage, a microphone, and an Aries modular synthesizer, recordings became just impermanent enough — all music still requires a moment in which it is performed. The studio only truly becomes an instrument to the degree that it can be brought onstage in a manner which allows the audience to perceive how such an instrument is used.

Staying on the West Coast, her live setup integrated a mix of both consumer and specialized gear: a Paia homemade synth, a Yamaha portasound keyboard, a Casio VL-Tone, a Prophet 5, an Ensoniq EPS Sampler, and eventually, Yamaha's rack mountable (and MIDI-compatible) powerhouse, the TG77. Infinitely programmable, and lacking any fixed interface, the potential of this device was unlocked when a friend at Paris' IRCAM Institute gave her an advance copy of the software program MAX in the late 80's, enabling her to design her own graphical interface to exploit the most interesting aspects of the TG77's FM synthesis engine. Sonami purchased a computer to run MAX, and began exploring means to create her own virtual instruments.

Through the 1980's, digital synthesizers gained a foothold on commercial pop music, but as their engines became more powerful and complex, their interfaces had simplified. With hundreds of sonic parameters now available, manufacturers stopped designing surfaces with dedicated knobs and faders. The assignable single-fader layout of Yamaha's DX7, though visually elegant, also forced users to think like programmers, thereby discouraging any real-time control over the sound. And while MIDI had allowed for the design of new physical controllers, most still resembled traditional instruments, such as guitars, drums, or flutes. The age in which synthesizers entrenched their commercial dominance was a dark age for their physical design, which ignored any idiomatic potential of their underlying engines; an age where few made it beyond their presets.

For Sonami, the solution came into focus by virtualizing the interface entirely: when one removes the instrument outright, the audience is left entirely with the performer and their gestures. In 1991, while working with Paul DeMarinis on a collaborative live performance, she added switches to a pair of kitchen rubber gloves. DeMarinis designed a box that converted those switches' outputs to MIDI, resulting in the first version of the *lady's glove*. She then started inserting the sensors from a Mattel Power Glove, a mass-produced device designed as a video game controller. The bending of the hand, and the angles between the fingers: these gestures supplied continuous data streams. Things got more complex; two ultrasounds were added, mapping the distance between both hands, as well as the distance to the floor. Two accelerometers measured the speed and tilting of each hand. Hall effects tracked the distance between fingers, and light and pressure sensors added further refinements. The switches fixed on the tip of the fingers allowed Sonami to trigger scene changes in the software. From all of these gestures, the sensors derive a stream of data, which is then received by Sonami's MAX patch, then sent out via MIDI to her sound engine (which, in the early years, was usually the Yamaha TG77). In 1994, Amsterdam's STEIM sponsored a complete reconstruction. With the help of engineer Bert Bongers (who respected Sonami's refusal to compromise on issues of visual design), the first three versions of the gloves were replaced with a visually striking lace fabric: if there was only what was worn to look at, it became not superficial, but essential, that what was worn look beautiful.

Without an apparent, distinct instrument for the audience to observe, only the performer and their gestures are left to focus on. But just as an audience can quickly pick up on the connections between the tiniest movement of a guitarist's hands upon their fretboard and the resulting sound, the fact that Sonami's varied and minute movements are in fact causing audible shifts in the sound quickly becomes apparent to any observer. Even if the precise relationship between a gestural pattern and the influence on the sound is initially unclear — the reality of that

connection is so apparent that most audiences are instantly brought into the present moment. The secret cost of accepting the unseen 'Studio' as the Instrument for anyone in the audience is that even the most exotic sounds become alienated from the present, or associated with mere playback. Even in Sonami's performances where the *lady's glove* is used to trigger and manipulate sounds, those sounds remain subject to the gesture, the resulting sounds unique to the moment of performance. The *glove*'s switches are frequently reused to remap her gestures to completely different parameters: even for those audiences paying enough attention to connect and associate her motions with their impact, the instrument's virtuality is reasserted with each new change of scene. But with this connection to gesture, even that which is random never becomes arbitrary, and sounds remain connected to the physics of the moment in which they occurred.

Sonami's voice appears in many of these pieces, a narrative thread spinning cohesion out of the disjunctive and contrasting sonic landscape. While her early pieces frequently used rearranged, fragmented fairy tales, the works on this present collection are written by Melody Sumner Carnahan, whose words would be collaboratively edited by the two of them to find a balanced flow between text and music. In performance, Sonami's gestures not only reenforce the storytelling, but underline, punctuate or add nuance to the character. Is the story making sense, or is the sound making sense? Eventually, once Sonami felt that her storytelling had begun carrying too much of the weight, she turned her attention to the sounds, until they regained power and authority. This process continued, with a refinement of the sounds themselves, and the *lady's glove* remaining her one instrument, until 2013 — until it all began to seem too easy. The *glove* was retired, leaving only the recordings compiled on these discs.

Her focus has turned to new instruments. In 2011, she met Rebecca Fiebrink, author of the Wekinator, software that simulates how neural nets learn, allowing for complex, dynamic mapping between inputs and synthesis. Sonami created the Spring Spyre as an instrument to drive Fiebrink's software — three acoustic steel strings, threaded across a steel circle, strummable and playable as any stringed instrument, within sight of the audience, but never acoustically heard by them. They merely provide data streams of an analog nature, too unstable and unpredictable for the neural nets to ever correctly or completely learn. The Spring Spyre lends itself to a performance style more reflective, throughline, linear — it does have chaos, but of a more continuous, less disruptable nature. Her old mentor Eliane Radigue, who had retired from electronic composition to write pieces for acoustic ensembles, learned the vocabulary of the Spring Spyre to contribute the first work for this instrument: 'OCCAM IX'.

While the Spyre remains a focus of her attention in her compositions for live solo performance, a quest for even further levels of simplicity led her in the years of COVID lockdown to a configuration she currently calls the 'lady's ball(s)': a foot switch, one accelerometer, gently held, while both hands manipulate a coiled ball of wires. The audience (and the performer) finally has a physical object upon which to focus all of their attention, but the object is only a distraction: the sensor is doing all of the work, and the gesture remains the instrument. Used as the primary instrument in her duo with James Fei, everything learned from decades spent keeping the tiniest gestures in direct relationship with abstract and beautiful sounds are still in play — the same riddle, presented in an even more elegant and laconic form.

A hypothetically immortal fly on the wall at every one of Sonami's concerts through the years has heard her asked as to why she had never seen fit to commercially releasing her solo work in album form. The sounds in and of themselves, beautiful enough, electronic music and recordings, so entangled as to be indistinguishable for most people, surely the recordings had to exist. Was she being lazy, or puritan in insisting that this was work that had to be experienced in person to be understood? The studio is in and of itself, not the instrument: those who refuse to mistake the recording for the music, who have refused to live on the other side of the looking-glass, and who have made a point to bring back instruments into the field of live performances for the sake of an actual audience, might understand the reticence, and sometimes decades have to pass into memory before one can hear a recording for what it is. Listening now, she remarks: "The logic of the gesture, what it made me do… the music could only happen because of what I could do with my hands. Now, when I listen, and accept that I can't see it, I can still hear the logic inscribed, the gestures in the logic of the pieces. They couldn't have been made in any other way. Now, this only happens because of the body. It can't happen in any other way."