

Square Rhythms

By Kyle Gann

Schillinger Technique
Arthur Russell, 1951-92

Musicians of my generation have only a vague idea who Joseph Schillinger was, if they know the name at all. Older ones remember that he invented a system for composing music, which he taught via correspondence, and which was published just before his death in 1943 as *The Schillinger System of Musical Composition* (Da Capo Press, two fat volumes, \$125). Gershwin was his most famous student, and Tin Pan Alley types flocked to Schillinger in search of cut-and-dried methods of churning out Broadway tunes; John Cage once approached him about setting up a music laboratory. On paper the system looks crazy, but it anticipated many serialist techniques and also provided a cohesive rhythmic theory, which 12-tone music has always lacked. And Schillinger's influence on new music still pops up in odd corners.

How crazy was the system? Schillinger insisted that artistic beauty was essentially mathematical, and he was ingenious at finding numerical expressions for the rhythms and pitch-contours of famous melodies. His books, dotted with algebraic equations and graphs, look more like engineering treatises than music texts. Hard to follow, they become easier if you take the trouble to reread backward, starting with the final melo-

dy and retracing the derivation. Schillinger grouped rhythms into families, and suggested that you could derive a rhythm's relative by *squaring* it. For example, $(a + b)^2 = (a^2 + ab + ba + b^2)$, which means that a rhythm of 3 + 1 (dotted eighth note followed by a sixteenth note) squares out to 9 + 3 + 3 + 1. That adds to 16, and will accompany four repetitions of the 3 + 1 with the type of sly syncopation that Schillinger's pop-song students appreciated.

Nuts, huh? Being mathematical, Schillinger's method is largely permutational, and it tends to result in a fixed number of musical elements being juggled statically within each section of a piece. In music that wants to ebb and swell smoothly, that's a limitation. But in music that steps from section to section, texture to texture, or that plays with large chunks of material, it can generate interesting results, as it does in the music of the two most Schillinger-influenced composers I know of, Earle Brown and Mikel Rouse. The former creates aleatory, free-flowing mobile forms, the other tightly structured rock pieces, and their differences salute the diversity that Schillinger's thinking allowed.

Brown was the honoree of this year's North American New Music Festival in Buffalo, April 3 through 11. He learned Schillinger technique at Boston's Schillinger School before teaming up with Cage in the early '50s, and at Buffalo he talked about the influence



LONA FOOTE

Mikel Rouse: tightly structured rock pieces

it still has on his work. Brown conducts improvisationally with ensembles that play prenotated chunks of notes, and though he sometimes writes intuitively or uses 12-tone techniques, he often uses Schillinger thinking to write the notes. In *Calder Piece* from the mid '60s, for example, he showed how he would divide a rhythm into, say, segments A, B, and C. From that, through permutation, he could derive five other rhythms: ACB, BAC, BCA, CAB, and CBA. That's pure Schillinger. In Brown's music, though, the static nature of the processes is disarmed by the fluidity of Brown's elegant, moment-to-moment shaping technique.

Rouse's Broken Consort played his three newest works for rock quartet April 12 at John Schaefer's "New Sounds" concert at Merkin Hall (followed by the Lounge Lizards, who were funny but, to my knowledge, used no mathematical systems). Rouse's

premiere, *Copperhead*, was a classic example of the way Schillinger technique stratifies rhythms into levels: a jumpy, fast tune in 12/8 at beginning and end, with slower and slowest levels in the middle, layered and audibly related. My favorite Rouse piece remains *Leading the Machine*, with a stately theme in 7/4 meter whose symmetrically off-balance internal rhythms make me suspect Schillinger shaping. Rouse sets one static section against another in proportions that bring change just at the ear-pleasing moment. It showed how much Schillinger's streams of equations still have to offer.

In a monotonously loud and commercial decade, Arthur Russell was a quiet, introverted voice. His early ensemble music was minimalist, but peculiarly soulful in its hummable melodies and playful harmonic surprises. Later, most often at Phill Niblock's loft con-

certs, he moved toward solo work with subdued pop elements, playing his cello while singing almost inaudibly. His cello technique was light, scratchy, bouncy, nonchalant yet carefully controlled, and he was a favorite accompanist for Philip Glass, Elodie Lauten, Peter Zummo, Allen Ginsberg, and others. All his music seemed a search for Buddhist calm and respite from pain. As Ginsberg said at Russell's April 12 memorial service, "His ambition seemed to be to write popular music, or bubble gum music, but *Buddhist* bubble gum, to transmit dharma through the most elemental form, or transmit some sense of illumination."

Russell died of AIDS at age 40 on April 4. His recent performances had been so infrequent due to illness, his songs were so personal, that it seems as though he simply vanished into his music. Though Russell once curated music at the Kitchen and was active in new music circles, his inability to finish his music to his satisfaction hindered dissemination of his work. Ginsberg is hoping to release recordings of his 1971 performances of Blake's *Songs of Innocence and Experience*, in which Russell improvised around his chanting. Glass, who plans to bring out Russell's own music on his new Point label, said, "The world isn't made for people like him. I don't think his music's going to be lost, because we're going to bring out some records." You may yet find Russell's music on four old vinyl discs: *Tower of Meaning* (Chatham Square); *Instrumentals 1974, Vol. 2* (Crepuscle, there is no Vol. 1); *World of Echo* (Upside/Rough Trade); *24 to 24 Music* (Sleeping Bag). ■