

Gordon Mumma photographed by
David Behrman, early 70s



Undercurrents #10: a series of structs the absurdist spectacle of

The sound is dirty. The needle trudges through the gnarled grooves of 30 year old vinyl. Under a sheet of hiss and crackle, the sound of amplified pots and pans being beaten with a pipe. A murmuring crowd and the sound of footsteps across a stage are signs that this document records only the audible traces of a largely visual, theatrical event. Aided by the photographs printed on the insert, one can dimly imagine the visual scene: tangled in wires, a troupe of scruffy hippies on their hands and knees rub odd objects together or twiddle the knobs of jerry-built consoles. "Live Electronic Music Improvised", the cover reads, "From Rome: MEV, From London: AMM".

The scene is worlds apart from those images that illustrate stock accounts of electronic music's origins: photos of technicians in suits and ties grinning beside shiny behemoths deep inside private universities or state-owned radio stations. As the traditional histories tell it, electronic music's founding opposition was the struggle between *musique concrète* and *elektronische Musik*, between the devotees of found sound and the advocates of sonic synthesis. But within a few years this tension had been resolved and replaced by a new and deeper one: the opposition between the studio and the stage, between crafted electronic composition and live electronic improvisation. This is the great divide, the rift between the founding fathers and their unruly children, the break between the twilight of modernism and the dawn of postmodernity

a few

ushered in by a federation of maverick electronic collectives, among them The ONCE Group, The Sonic Arts Union, AMM, *Musica Elettronica Viva* . . .

Control

The first electronic music studios had been set up in the 1950s, funded by foundations and corporations interested in the development of communication and information technology. Musically, the studios were led by a cadre of academic serialists who saw electronic sound synthesis as a means of increasing control over their musical product. By building and programming tones from scratch, the composer could regulate and

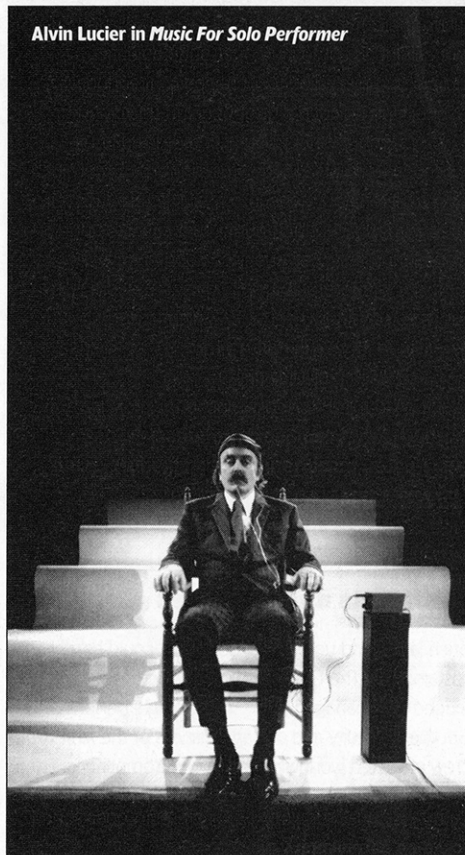
articles uncovering the hidden wiring of 20th century music. This month Christoph Cox recon-avant garde composers going live, taking in David Tudor, MEV and Sonic Arts Union

serialise every parameter of the musical field, from pitch to rhythm and dynamics. Responding to the dwindling audience for their music, 'total serialists' like Herbert Eimert, Milton Babbitt and Pierre Boulez took to the studios hoping to dispense with performance altogether and to forge a post-human music that no longer had to concern itself with the competencies and tastes of instrumentalists and listeners. "The notion of having complete control over one's composition, of being complete master of all you survey," remarked Babbitt, "seemed to be a practical solution, a musical solution, a conceptual solution, and it removed one from the inappropriate milieu of presenting it to people who were not prepared or not interested."

Letting sounds be themselves

While Babbitt and Boulez were busy electronically systematising the variables of musical form, John Cage was becoming a Buddhist, learning to withdraw his hand from the musical situation and to let sounds be. For Cage's Zen sensibilities, this release of control was a spiritual and ethical, even a political, imperative; one that led him to abdicate the role of composer in order to become an improviser and collaborator. "When you get right down to it," Cage said, "a composer is simply someone who tells other people what to do. I'd like our activities to be more social — and anarchically so."

Electronics played a vital role in Cage's programme to



interpret indeterminate scores prompted the composer Roman Haubenstock-Ramati to remark that he "could play the raisins in a slice of fruitcake". But Tudor found his own voice with live electronics, and over the course of the 1960s, gradually ended his career as a pianist.

Collaborating with Cage during the 50s, Tudor turned to electronics as a way of realising pieces, such as Cage's *Variations* series, that were scored "for any sound-producing means". He took to the medium with the same obsessive attitude he had earlier brought to his piano interpretations. Attempting to bridge the ever-widening gap between the engineer and the musician, he taught himself electronics from the inside out, soldering his own circuits and housing them in makeshift containers. Compared with Babbitt's RCA Synthesizer, Tudor's 'lunch boxes' were rudimentary indeed. But they were modular, portable and could be easily altered as the occasion demanded — necessary requirements for Tudor's peculiar electronic art.

Along with Cage, Tudor had worked with The Merce Cunningham Dance Company since its inception in 1953; and much of his electronic music was composed for them. Specifying only a given piece's duration, Cunningham left all further musical decisions to his composers, maintaining that the musical side should not be mere accompaniment but its own parallel and independent activity. He insisted only that it be live and that it should contribute to the total theatrical situation.

Tudor never disappointed. As one critic noted,

bright sparks

liberate sound from the composer's clutches. In 1939 he premiered his *Imaginary Landscape No 1*, the first electroacoustic composition. Nearly a decade before Pierre Schaeffer's *concrète* studies, and four decades before "The Adventures Of Grandmaster Flash On The Wheels Of Steel", the piece featured two turntables spinning studio test tones transformed into sirens and pops by a variety of turntablist tactics. Significantly, the piece was devised as live theatre music for Jean Cocteau's *Marriage At The Eiffel Tower*, an oddball play narrated by two actors costumed as phonographs. Indeed, for Cage and the generation he inspired, electronic music was all about the vicissitudes of live performance and the total audiovisual spectacle. It was

precisely the unpredictability of simple electronic devices that attracted him, the unexpected events that could transpire when audio signals were let loose into space.

Tinkering

Cage's aesthetic disposition and his affirmation of live music, collaboration and multimedia spurred the activities of the live electronic collectives. But they found their musical tools in the technological practice of Cage's associate David Tudor. A legendary vanguard pianist, Tudor had given the first performances of works by Boulez, Cage, Karlheinz Stockhausen, Sylvano Bussotti, La Monte Young and others. Tudor's astonishing ability to

"Anyone who has ever... seen Cage and Tudor threading their way about a stage cluttered with cables, amplifiers, speakers and electrically wired instruments, can testify at least that the spectacle does not induce drowsiness." Tudor's magnum opus, 1968's *Rainforest*, was particularly memorable. As the Cunningham dancers glided among Andy Warhol's hovering mylar balloons, Tudor animated a jungle of resonant objects strung from the ceiling and fitted with contact microphones. Set into vibration with an oscillator, the objects' amplified tones were broadcast across the stage, fed back into Tudor's electronic filters and sent out again into the space, generating a recycling chorus of synthetic monkeys, parrots and insects.



Sonic Arts Union, 1972

ONCE bitten

Gordon Mumma had also written music for the Cunningham ensemble and assisted Tudor with the construction of *Rainforest*. An electronics geek who had spent time around broadcast engineers, Mumma's abilities as a bricoleur rivaled Tudor's; and his vast knowledge of transistors, capacitors, electrodes and the like was mined by associates such as David Behrman and Richard Teitelbaum. In 1958, at the age of 23, Mumma, along with Robert Ashley, set up the Cooperative Studio for Electronic Music, inaugurating a phenomenal period of experimental activity in Ann Arbor, a university town less than an hour outside of Detroit. A few years later, Mumma and Ashley hooked up with a network of film makers, artists, dancers, actors and architects to hold a multimedia blowout, which established itself as an annual event for the next seven years, oddly enough, seeing how it was called The ONCE Festival.

ONCE activities ranged from the sparest items of conceptual art — such as Mary Ashley's *Hole (A Sculpture)*, which consisted of the instruction: "Walk backwards all day Saturday" — to audiovisual extravaganzas of almost ridiculous magnitude, epitomised by Mumma's *Megaton For William Burroughs*. In total darkness, the piece began with four minutes of a dense and deafening electronic drone. As the drone faded, stage lights slowly illuminated an electroacoustic sculpture surrounded by five performers. Communicating with one another via aircraft headsets, the performers drew from the sculpture an array of squeaks and squeals, while flashing projectiles sped by on overhead wires. Minutes later, all of this was drowned out by the taped sounds of an aircraft squadron and the voices of bomber crews carrying out a raid. A blast of heroic movie music and the tape ended, leaving the spotlight to fall on a lone drummer methodically riding a cymbal and snare.

PHOTO OF DAVID TUDOR: STAN RIES

Sonic arts and sciences

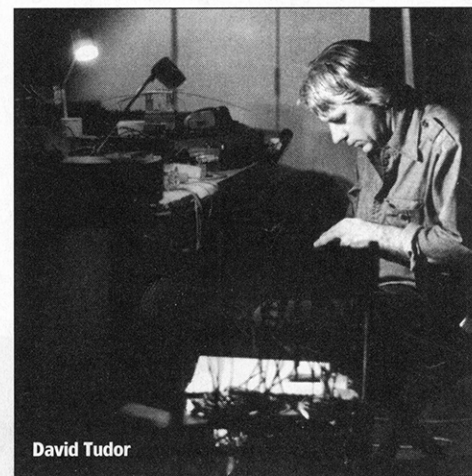
Such lavish and unwieldy productions could hardly be sustained on The ONCE Group's shoestring budget. Indeed few managed more than a single performance. But the ingenuity and outrageousness of the Ann Arbor crew attracted worldwide attention, prompting visits by experimental artists from all over the US, Europe and Japan. Among the festival's guests were Alvin Lucier and David Behrman, who struck up a friendship with Mumma and Ashley. Sharing similar interests in live electronics and theatre, the four began to work together and to develop a repertoire of modest, small scale pieces. Called The Sonic Arts Union on a 1966 concert programme, the quartet toured throughout the US and Europe.

"Our performances explored aspects of music and performance that were outside the bounds of what contemporary music generally accepted," remembers Behrman. "Partly that had to do with homemade electronics, partly with exploration of the nature of acoustics, partly with crossing the lines between theatre, visual arts, poetry and music." Lucier adds, "I think we did such different work that sometimes it just bypassed people's perceptions. Sometimes the audiences just couldn't process it as music."

In the hands of Lucier, a Sonic Arts performance could appear to be a bizarre medical procedure, or a high school science experiment gone awry. In *Music For Solo Performer* (1965), Lucier sat calmly while an assistant attached electrodes to his scalp with paste and gauze. After a period of meditation, his alpha brainwaves transmitted signals through amplifiers to resonate percussion instruments scattered about the room. Another favourite, *Vespers*, celebrated the sensory hierarchy of the common bat (*Vespertilionidae*). The piece required a dark room and a set of performers supplied with handheld echo-location devices emitting

rapid clicking pulses. Wandering around the space, the performers attempted to orient themselves by monitoring the rate and timbre of sound as it bounced off surrounding objects.

Featuring his own homemade electronics, Behrman's pieces were no less odd or dramatic. *Runthrough* was for two performers operating battery powered wave generators and modulators and two holding flashlights. Turning dials and flipping switches, one pair sent out eerie waves and twitches of synthetic sound while the other two modified the volume and direction of the signals by shining their flashlights on light-sensitive sound distributors. Manifesting his populist, hands-on aesthetic, Behrman commented: "No special skills or training are helpful in turning knobs or shining flashlights, so whatever music can emerge from the equipment is available to non-musicians as to musicians. Because there is neither a score nor directions, any sound which results... remains part of the 'piece'. (Whatever you do with a surfboard in the surf remains part of surfboarding...) Things are going well when all the players have the sensation they are



David Tudor

riding a sound they like in harmony together, and when each is appreciative of what the others are doing." It is telling that Behrman often used surfing analogies; his pieces were conceived not as attempts to control wanton natural forces but as a means of being carried along by them.

Indulging his enthusiasm for theatre, Ashley often assumed the guise of a mysterious nightclub singer for performances of *The Wolfman*. In a lone spotlight, his hair slicked back and wearing dark glasses, Ashley stood silently, the taped sounds of nightclub chatter playing softly in the background. Mouth pressed against the microphone, he began to groan louder and louder until voice and feedback became indistinguishable and human utterance was transformed into an electronic monstrosity.

Mumma's slightly more high-tech productions also experimented with the electronic modification of acoustic phenomena. *Hornpipe* featured his 'cybersonic console', a box of circuits built to monitor the resonance of an instrument and offer electronic tones to match.

With the console attached to his belt, Mumma introduced *Hornpipe* with a few minutes of virtuosic solo Improv on French horn until the animated circuits spat out an electronic complement, turning the piece into a full-fledged duet between the horn and its uncanny electronic other.

Politics and the electronic double

While The Sonic Arts Union was fulfilling Cage's programme for the exploration and liberation of sound, a group of American expatriates in Rome calling themselves Musica Elettronica Viva (MEV) set out to realise his social and political vision. After studies at Harvard and Princeton, Frederic Rzewski travelled to Italy on a Fulbright fellowship in 1960, where he gained a reputation as a gifted avant garde pianist. Rzewski's concerts attracted an arty crowd; and a group of experimental musicians soon formed around him. "We were all Ivy League dropouts who were denied access to studios," recalls the outfit's synthesizer whiz Richard Teitelbaum. "We just decided we'd buy or build our own equipment and make electronic music."

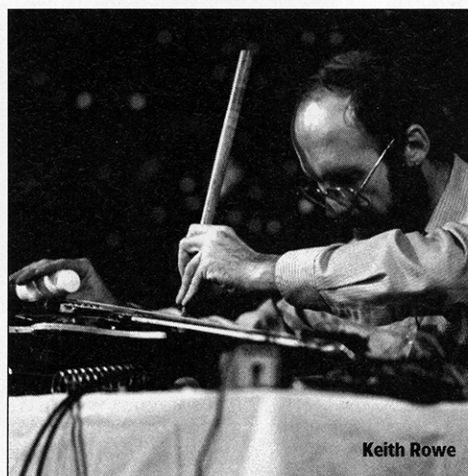
Formed in 1966, MEV's original project was modest: to perform concerts of experimental music by the likes of Behrman, Lucier, Cage and Cornelius Cardew. But the following year the quartet began adding a session of collective improvisation to their shows. Soon, composition was entirely displaced by "music created directly in the moment of performance using electronic instruments". For these iconoclastic noisemakers, "electronic instruments" meant everything from amplified glass plates, steel springs and olive oil cans, to homemade oscillators and Moog synthesizers. Thus armed, the group produced a throbbing, clanging maelstrom that sounded like documentary recordings from a steel factory or construction site.

Sonically, the group seemed to be reanimating Marinetti and Russolo's Italian Futurism; but MEV's politics were closer to that of the Italian Marxist Antonio Gramsci. Indeed, in Rzewski's view, each MEV performance was to be a kind of political therapy. As he saw it, the collective membership was involved in the creation of a utopian zone, a 'created space' apart from the 'occupied space' of capitalist individualism that each of us unconsciously inherits. This meant freeing music from the idea of the composer and the score, as well as liberating performers from their own habits and preferences, helping them to overcome conflicts with others and their resistance to collective activity.

For Rzewski and Teitelbaum, electronic sound literally carries performers outside themselves. "The performer's entire body and his sense of identity are affected by such things as intermodulation and feedback," Rzewski noted, referring to the "harmony... created between the individual and his own 'double' — the electronically transformed signal issuing from the loudspeaker membrane." For Teitelbaum, this whole experience had a mystical significance and confirmed the Kabbalistic dictum that, in the state of ecstasy, a

man "suddenly sees the shape of his self before him talking to him and he forgets his self and it is disengaged from him". In such a state, Teitelbaum concluded, "we no longer know who we are or what we do; we are embraced by all without us. 'WITHIN US WITHOUT US.' WE ARE ALL ONE."

In 1969, this longing for unity led MEV to experiment with audience participation. "If the composer had become one with the player," announced Rzewski, "the player had to become one with the listener." Now a large collection of improvisors (including, at times, Steve Lacy and Anthony Braxton), MEV took to the streets of Venice and Rome in the autumn of 1968, inviting the audience to bring instruments and join in. Away from power outlets, the group began leaving the synthesizers and photocell distributors at home, instead favouring more ordinary and portable instruments. Rzewski's position was becoming increasingly populist and romantic in its criticisms of the conceptual and technological elitism of music's avant garde. "Now that machines have become such a dominant part of our environment," he



Keith Rowe

remarked in 1969, "we are beginning to become aware of the need for rediscovering our bodies, which have become atrophied by dependence on machines and from which machines have alienated us. Our music has to be a demonstration of something simple, physical, universal, and liberating. Machines, electronics, and fancy technology get in the way of this demonstration."

Power failure and resurgence

Rzewski's about-face was extreme; but his attitude was symptomatic of a general turning point. By the early 1970s the energy had been drained from the power sources of live electronic music. The ONCE Group had disbanded, The Sonic Arts Union was decreasingly active, and improvising collectives like MEV and AMM no longer found it de rigueur to perform with transistor radios, contact microphones or homemade synthesizers. Many of the individual composers continued to experiment and perform with electronics, but nearly all

did so from positions of security as professors of music at colleges and universities scattered around the US. Commercial synthesizers and effects pedals with preset patches had become cheap and easy to use, drying up the market for old-style parts and do-it-yourself kits. The age of popular mechanics and the experimental collective appeared to be over.

But more than 25 years later, the current is once again surging through the circuits of experimental music and live electronic improvisation. Scanner's on-the-spot channelling of voices from the ether updates Cage's live radio experiments. John Butcher and Phil Durrant both cite Tudor as an important antecedent for their brand of real-time electronic manipulation with homemade gadgetry. Jim O'Rourke has recently taken up residence with The Merce Cunningham Dance Company, twiddling knobs beside his childhood heroes Behrman and Takehisa Kosugi (the Japanese violinist and former leader of Taj Mahal Travellers). And the acoustic/electronic pile-up created by the Norwegian Improv outfit Supersilent draws comparisons with MEV.

But the new live electronic music doesn't just look



Frederic Rzewski

back. If the sluggishness of hard drives and the rigidity of music software formerly made live performance on computers a tortuous and tiresome affair, the hyperspeed and portability of Mac G3s and the real-time fluidity of programs like MAX, LiSa, and Super Collider have put live electronics into the hands of Powerbook powerhouses such as Christian Fennesz and Peter 'Pita' Rehberg. In truth, there is little distance between electronic tinkerers like Durrant and data crunchers like Rehberg. Indeed, the two join mimes in the spectacular new live electronic orchestra MIMEO, whose astonishing debut has just been released by Chicago's Perdicion Plastics label. A 12 piece led by AMM's Keith Rowe, MIMEO brings together generations of electronic experimentalists to battle it out on radios, tapes, samplers, analogue synthesizers, Powerbooks and other electronic paraphernalia. Chalk it up to the mysterious and unpredictable life of the electronic signal, which, released from its source, reappears transformed in strange and beautiful new guises. □