

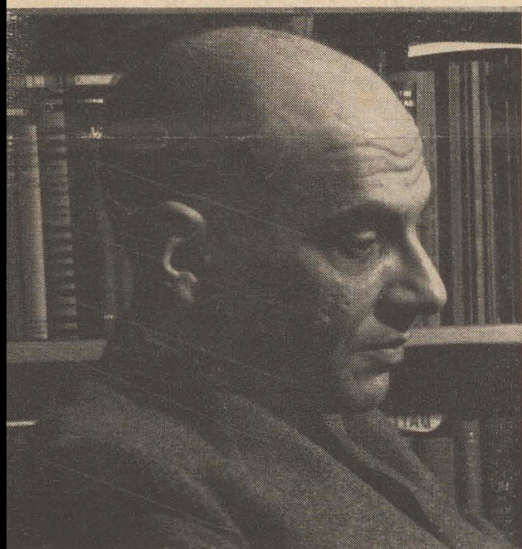


Coast-to-coast interest intensifies this year in electronic music; now it is being taught in our universities

Music of the future?

Baffling, irritating, compelling—the sounds of electronic music, which has limitless sources, are new to the ear. Every authority defines it a little differently but all agree the composer is limited only by his imagination and the noises his equipment can record; tape, which can be cut, spliced, run backward or upside down, has made sound manageable. Electronically generated sounds are put on tape, then integrated into music by the composer; or existing sounds (sometimes altered by electronics) are spliced together, forming compositions. Like all music, the effects depend on the success with which sound is organized—by acoustical laws existing since the music of the spheres.

- ◀ **Aural confectionery.** Columbia's Vladimir Ussachevsky and Otto Luening approach electronic music by manipulating the voices of conventional musical instruments—a piano note



scissored down to its percussive attack, a flute's note made to reverberate produce effects hitherto unimagined in music.

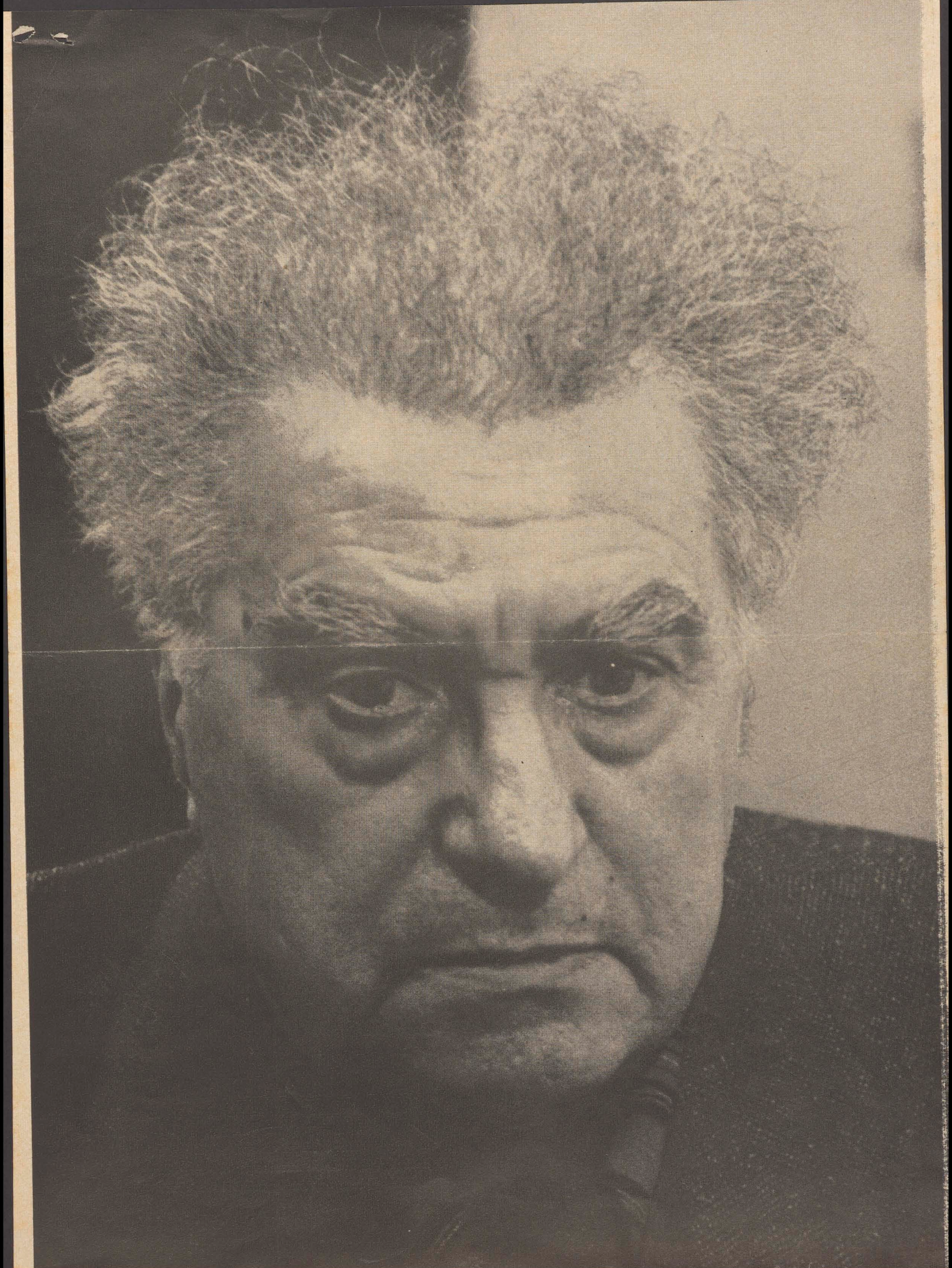
- ◀ **Cool computer.** Milton Babbitt is the operator of the RCA Electronic Synthesizer, which can uncannily duplicate *any* natural sound. With Roger Sessions, Luening and Ussachevsky, he is running a Columbia-Princeton electronic music studio, Rockefeller-sponsored. (Computer composition costs \$3,000 an hour.)

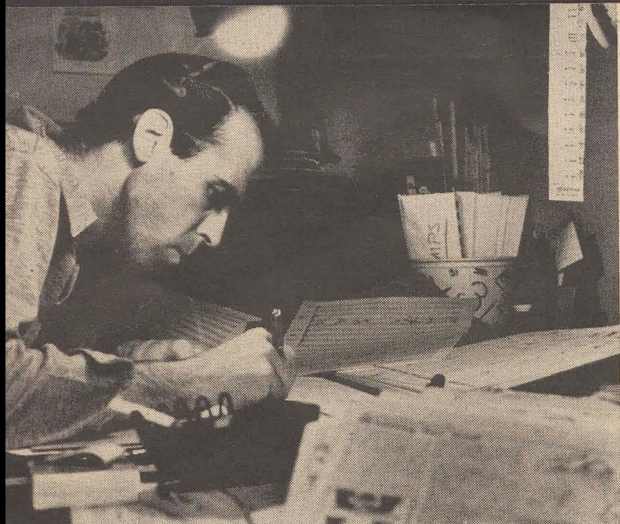
A prophet. It was said of Edgard Varèse that if music could be censored, he would be the first to suffer. One of the greatest musical pioneers since Monteverdi, he has devoted a formidable technique to a half-century search for the original sources of pure sound. It is natural that his should be the first great musical mind to grasp the materials of electronic sound, which he put to sensational use in *Poème Électrique*, written for the Brussels World's Fair pavilion that Le Corbusier designed. While huge pictures flashed on the walls, the sonorities of Varèse's music issued like an intergalactic storm from 400 loudspeakers. Crowds came away looking stunned, angered or unnerved. Varèse has always frightened his audiences. Avoiding conscious emotive and sensory associations, his music (whether electronic or conventional) summons up states before which human individuality cowers: life making its first appearance on earth, the depths and distances of a cosmos that has ceased to be an idea only.

- ◀ **Tortured electrons.** Louis and Bebe Barron create film scores with electrons, activated into electronic circuits that seem to express emotional characteristics. When stimulated, the circuits respond with meaningful sounds, as if alive; the film track is composed by altering and editing them on tape. The eerie results communicate emotions without the intervention of symbols.



Photographs by Kay Harris

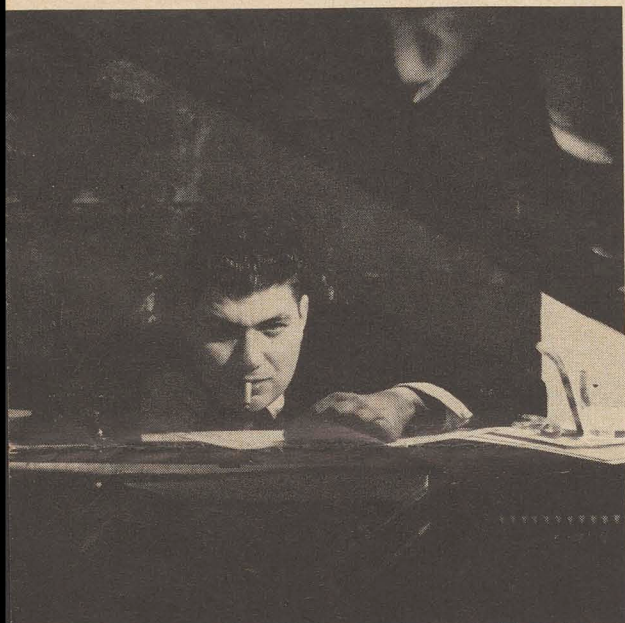




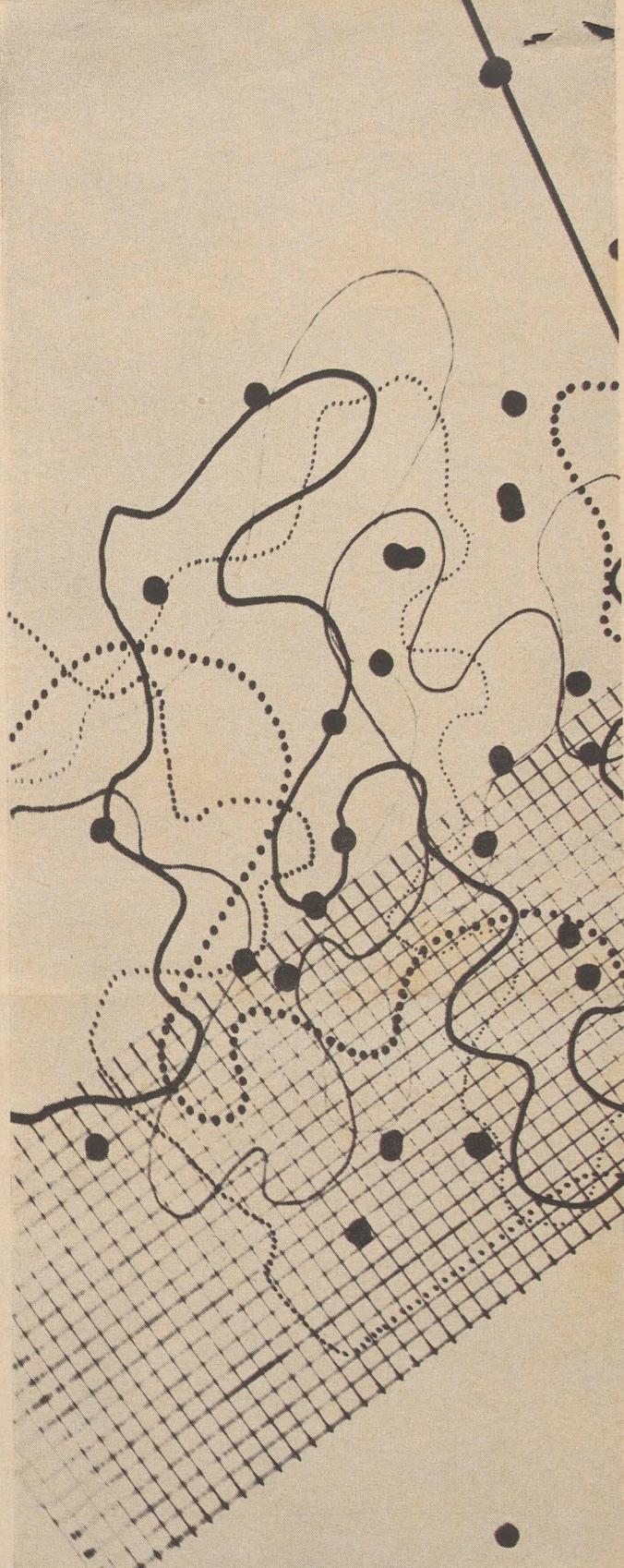
Music of the future?

Continued

▲ A lively sensibility always speaks out in the "music for tape" of Earle Brown. Like many young composers of electronic music, he has been much influenced by Webern's twelve-tone scale



▲ While Brown, writing for eight tape recorders, remains fluent and relaxed, Morton Feldman produces quite different results. He cautiously presses a sore spot until the pain becomes abstract



Photographs by Kay Harris

◀ **Kontrapunkte.** Cologne, Germany, is headquarters for the electronic purists, and the solemn, boyish Karlheinz Stockhausen is their leader. He produces music by regulating signal generators that mix and filter pure tones, impulses and "white noise" (the background hush we mistake for silence). The result is intellectual, technically brilliant but monotonous



▲ A game of chance. John Cage has been an enfant terrible of American music since he first “prepared” pianos and wrote scores for them that cannot be played the same way twice. The meandering diagram above is a blowup of the score for his electronic fantasy, *Fontana Mix*—achieved by dropping transparent 8” by 10” charts one on top of another. “Music for tape” has given Cage a new vocabulary

of noises—from traffic to mosquitoes. What he makes of them demonstrates again the triumph of personal style over mind-staggering computer activity. Meantime, the ripples of electronic music spread: a Swedish space opera, *Aniara*, by Blomdahl, uses it; in Tokyo, it echoes the music of Noh drama; in San Francisco, the Vortex group stages cosmic auditory spectacles in the Morrison Planetarium.