On April 5, 1968 composers Milton Babbitt, Vladimir Ussachevsky and George Balch Wilson came to Dartmouth College in Hanover, New Hampshire to judge the first competition devoted to electronic music. The Dartmouth Arts Council had made available a five hundred dollar prize which was awarded to Olly W. Wilson for his composition "Cetus." Babbitt, Ussachevsky (Directors of the Columbia-Princeton Electronic Music Center) and Wilson (Director of the University of Michigan Electronic Music Studio) singled out five other works which they felt were significant compositions. Over one hundred entries were received from studios around the world and the judges listened to more than sixty of these before selecting the finalists whose works are presented here for the first time. The judging was anonymous and it was a mere coincidence that two of the finalists should have come from the Columbia-Princeton Electronic Music Center and two from the Experimental Studio of the Polish Radio.

This recording is, in one sense, an historic document for it testifies to the breadth of interest in electronic music by composers and the new audiences. It is also significant that these works will reach that audience through this recording and not the concert hall. The following notes were written by the composers themselves.

Jon H. Appleton
Director, Electronic Music Studio
Dartmouth College
Hanover, New Hampshire

OLLY W. WILSON (b. 1937)
CETUS (1967) * Winner *

(Realized in the Studio for Experimental Music of the University of Illinois)

Cetus was completed during the summer of 1967 at the studio for Experimental Music of the University of Illinois. The title refers to an equatorial constellation whose arch-like configuration was suggested to the composer's mind by the form of the work. This musical structure is the result of an evolutionary process in which basically simple timbres, textural combinations, and rhythmic events become more complex before ultimately returning to simpler relationships. For example, the basic timbre of the first selection was produced by amplitude modulation of a single sine wave which evolves into a combination of modulated sound sources, the sum of which is then modulated.

The compositional process characteristic of the "classical tape studio" (the mutation of a few basic electronic signals by means of filters, signal modifiers, and recording processes) was employed in the realization of this work and was enhanced by means of certain instruments which permit improvisation by synthesized sound. *Cetus* contains passages which were improvised by the composer as well as sections realized by classical tape studio procedures. The master of this work was prepared on a two channel tape. Under the ideal circumstances it should be performed with multiple speakers surrounding the auditor.

By Olly Wilson

WILLIAM HELLERMANN (b. 1939)
ARIEL (1967) * 4th Finalist *

(Realized in the Columbia-Princeton Electronic Music Center)

The name *Ariel* is related to Shakespeare's character in *The Tempest:* the music isn't. I chose this name for my piece only because it sounded appropriate to the music. Not because the music was especially poetic or playful, but because Ariel suggests to me a transformation of spirit, the ability to change shape at will.

In listening to *Ariel,* it might also be helpful to know that it was not designed to illustrate any technical process or aesthetic dogma; nor was it intended to create any visual images. It is a composed performance, not a composition. A performance, because all its events are the result of live operations in real time, not the result of careful measuring and splicing. Composed, because many separate performances were then transformed, made to have new significance, by being placed in relation to each other. The performing medium was an electronic music studio: the basic sound source was a gong.

By William Hellermann

EUGENIUSZ RUDNIK (b. 1933)
DIXI (1967) * 3rd Finalist *

(Realized in the Experimental Studio of the Polish Radio, Warsaw)

The material used for this etude consists of electronic sounds of the type of "sonorous mixtures" varying in density and intensiveness. They appear in blocks of different pitches which either diffuse into each other, or are used to create sharp collisions of complex sonority. The latter technique dominates the middle part of the composition. In principle, the entire sound material is of continuous quality. The sequences and pitch relations inside the diffusing blocks depend on the aleatoric events resulting from the accepted technology. I did not intend to compose melodic structures. My idea was to create the impression of the continuity of events of different tone color and intensiveness, as well as to show the references of these "qualities" to each other.

These are the assumptions on which the composition's form is based. The entire work is constructed by the sonorous material itself, depending on its movement and development in time. The intended simplicity and ostensible meagerness of sound material, as well as the alleged scarcity of musical events are to attract the listener's attention to the development of form, rather than to relations between particular events. This also enables the listener to predict forthcoming events, if only to reveal that no such events follow.

The composition has the form of a continuum of the structural type a—b—à, its three parts differing from each other in their emotional impact. It is a kind of triptych in which the third part is a variation of part one. The variation was achieved through a combination of microstructures from which the first part is constructed. This was done by means of known technical operations, such as: musical "crabs", transposition in reverse, transmutation, etc.

The work's dynamics are subservient to its formal structure and therefore it is symmetric in relation to the body of the composition. The body is, at the same time, a dynamic, emotional and sonorous apogee of the whole work. It is also the middle part of the composition as far as performance time is concerned.

By Eugeniusz Rudnik

PRIL SMILEY (b. 1943)
ECLIPSE (1967) * 1st Finalist *

(Realized in the Columbia-Princeton Electronic Music Center)

Eclipse was originally composed for four separate tracks, the composer having worked with a specifically-structured antiphonal distribution of compositional material to be heard from four corners of a room or other appropriate space. This record necessarily represents a reduced two-track version of the piece, and hence (from the composer's point of view) the piece loses some part of its structural significance.

Some sections of *Eclipse* are semi-improvisatory; by and large, the piece was worked out via many sketches and preliminary experiments on tape: all elements such as rhythm, timbre, loudness, and duration of each note were very precisely determined and controlled.

In many ways, the structure of *Eclipse* is related to the composer's use of timbre. There are basically two kinds of sounds in the piece: the low, sustained gong-like sounds (always either increasing or decreasing in loudness) and the short more percussive sounds, which can be thought of as metallic, glassy, or wooden in character. These different kinds of timbres are usually used in contrast to one another, sometimes being set end to end so that one kind of sound interrupts another, and sometimes being dovetailed so that one timbre appears to emerge out of or from beneath another.

Eighty-five percent of the sounds are electronic in origin; the non-electronic sounds are mainly pre-recorded percussion sounds—but subsequently electronically modified so that they are not always recognizable.

By Pril Smiley

For the last three years, Dartmouth College has held an annual competition for electronic music. The winners and finalists' works from the first competition were released by Vox two years ago and we at Dartmouth felt gratified by the warm critical response to the recording. We were also pleased that the competition gave the public an opportunity to hear some of the best works by new and younger composers.

The judges for the second competition were Lars-Gunnar Bodin from Sweden, Charles Dodge and Pril Smiley from the Columbia-Princeton Electronic Music Center and Kenneth Gaburo from the University of California, San Diego. They chose the winning works anonymously after listening to nearly one hundred different entries. The winning composers were Peter Glushanok, an experienced film maker who has a small electronic music studio in his home, and Peter Klausmeyer, a graduate student at the University of Michigan. The two finalists were Walter Kimmel, who is director of the electronic music studio at Moorhead State College, and Raymond Moore, who is a recording engineer for a large record company.

There were over two hundred entries in the 1970 competition which meant nearly a week of listening for judges Sal Martriano from the University of Illinois, Francois Bayle of France and James K. Randall of Princeton University. Again the prize was divided between one of Chile's leading composers, Jose Vicente Asuar and Richard A. Robinson, the director of the Atlanta Electronic Music Center. The finalists were Jean-Claude Risset who works in Marseille, France, but who realized his work at the Bell Laboratories in New Jersey, and Jonathan Weiss, a composer in his early twenties who is in residence at the R.A. Moog Co. in Trumansberg, New York.

The listener to this album will hear enormous diversity in the approach used by the different composers. The following comments about the works were written by the composers themselves.

Jon H. Appleton, Director
Dartmouth Electronic Music Studio

Side I – *22:53 Min.*

IN MEMORIAM FOR MY FRIEND HENRY SAIA – *10:35 Min.*

Completed in early 1969, this piece was begun as an experiment in textures from concrete sources, and was developed as an elegy in memory of my friend Henry Saia who died by suicide just a few months before.

Henry's transient and restless quality, seen through the eyes of his friends who discussed him interminably; his depressions lightened by a sense of humor, and his life which ended without hope despite the jokes and the friends, broke traumatically into our unawareness.

Peter Glushanok

CAMBRIAN SEA – *6:18 Min.*

This piece was put together in the University of Michigan Electronic Music Studio in January, 1968. There is nothing particularly complicated about the material used; all the sounds are electronic in origin.

White noise formed the basis of the first couple of minutes of the piece. The signal was split into several components, filtered through two Krohnhite band-pass filters, re-mixed and shaped by a Moog envelope generator-voltage controlled amplifier combination.

The "metal" sounds were made by modulating a mixture of three sine waves with a white noise signal whose short attack & decay envelope came from the Moog equipment mentioned above. An old tube-type balanced modulator was used here.

The "belch" sounds were made in a fashion similar to that of the metallic sounds, except that a very low sawtooth wave was the modulating signal instead of the white noise, the frequency of one of the sine generators being altered by hand during the decay of the envelope.

With the return of the sea sounds at the end, the piece is closed off in the age-old, time-tested A-B-A fashion.

Peter Klausmeyer

"TRIP THROUGH THE MILKY WAY – AN ELECTRONIC PANORAMA" – *5:57 Min.*

The three basic motives of "Trip Through the Milky Way – An Electronic Panorama" are: a twenty-three-note row in which the interval of a fourth appears thirteen times; a series of thirteen fourths; and a sine wave glide tone whose ups and downs are governed by the interval of a fourth. All of the motives were created with a sine wave oscillator.

Several one-voice lines were created from these three basic motives. They in turn were copied – halving or doubling the tape speed, and hence creating a building block – i.e., a four-voice unit.

These building blocks were then combined so that in the middle of the composition there are sixteen distinct lines on each stereo channel and thirty-two in the center (Two channel version).

Hence, "Trip Through the Milky Way – An Electronic Panorama" is a multi-voiced (64) canon at the octave.

The composition was not a planned trip through the Milky Way but rather after the fact. When it was finished (March 1969), the structure and contour of its sound densities and intensities were not unlike a sound picture (or, if you will, Panorama – in the four channel version) of a trip through the Milky Way.

Since April 1969, there have been performances of the "Trip ...." in Sweden by the Fylkingen, and Rikskonserter groups, by the Swedish Radio and at the opening of the United States Cultural Center, Stockholm, Sweden, in the music-light-dance festival "Action Center U.S.A." In the July 1970 issue of *High Fidelity*, "Trip Through the Milky Way" was awarded Honorable Mention in its Electronic Music Contest of August 1969.

Raymond Moore

Side II – *24:00 Min.*

DIVERTIMENTO – *7:05 Min.*

In works such as "Serenade para mi Voz" (1962) and "Divertimento" (1968), I've tried to bring back, using the electronic medium, recollections of the chamber music of the 18th century not by pretending to revive the classical form but by taking a thought or an idea that could have inspired music at that time and could also do it in our age. The elegance of the classical Divertimento has always interested me for within the Suite form can be outlined the "Variation", the "Dance" or the "Reprise", all in an extroverted mood, full of virtuosity and good humor.

The realization of my Divertimento is wholly electronic while its organization is greatly dependent on mathematics and biology. A kind of bio-chemistry which consists of transforming sound molecules into cells, tissues, organs, and bodies, and feeding them from the same vital tension that gives energy to the whole as well as to each one of its parts. In this way, the composition laws of the sonorous unifying elements have been the determining factor in the structure of the work, since I believe that through electronic music we can establish space-time-structure relations that can be projected in the micro-form as well as in longer time lapses with the same degree of significance. In other words, I believe that the unifying factor of the form-matter (energy-matter) which has been lost, acoustically speaking, in our present-day instrumental music can be found again in the electronic medium, and this is, for me, the main reason for working out the musical-technical problems that are inherent in this form of communication.

José Vicente Asuar

– 6:23 Min.

The source material for Ambience was produced on an "instrument" consisting of three electric bass guitar strings strung lengthwise across a long board, with a bridge and a small magnetic guitar pickup at each end. Two modes of sound production were used. One, in which transversely placed metal pipes were rolled up and down the length of the strings, produced a texture of multiple glissandi. A second, predominantly metric-rhythmic texture was produced by causing a number of pipes of different lengths to "oscillate" or rock across the strings (rather than to roll lengthwise).

This basic recorded material was then extensively transformed electronically by filtering, heterodyning, ring modulation, speed changes, etc., and finally an overall structure was composed of variously complex superimpositions and juxtapositions of the two basic textural types. A light controlled channel-speaker distributing device used in the original quadrasonic version further emphasizes this textural contrast in that gliding textures have a predominantly circling movement around the listening area, while the more active, rhythmic textures move disjunctly.

The intention of the piece, originally conceived for performance with the Atlanta Contemporary Dance Group, is to create an impression of gradually being swept up in a familiar yet mysterious sound-atmosphere or ambience — perhaps somewhat like the experience of driving alone in a car at night — a sense of increasing absorption and identity with the surrounding sounds — the motor, rushing air, tires on pavement, vibrations, etc.

Richard Allan Robinson