

On May 9, 1952, a Columbia University music-major-to-be slipped into a back seat of the McMillan (now Miller) Theater on upper Broadway in New York City to hear a most extraordinary event: a musical performance in which there were no musical performers. Instead, a dark-haired, serious, youngish man with horn-rimmed glasses, evidently the creator of what we were about to hear, turned on a tape recorder (the “tapesichord” someone dubbed it) and a series of previously unheard, unsuspected sounds, organized in musical form, gushed forth. It was Day One of a new musical era.

The tape-recorder operator was Vladimir Ussachevsky, who had joined the Columbia music faculty only five years earlier and who was shortly to co-found the Columbia Experimental Music Studio, later the Columbia Tape Music Studio and eventually to become, as the Columbia-Princeton Electronic Music Center, one of the world’s major studios for computer and electronic music. The would-be music major was the undersigned who afterward studied with both Ussachevsky and Otto Luening in the Columbia music department.

Unknown to Ussachevsky, the first experiments in tape and electronic music had begun two or three years earlier in France with the *musique concrète* of Pierre Schaeffer and Pierre Henry and, one year before, in Germany with the founding of the Cologne electronic-music studio by Herbert Eimert. Ussachevsky’s first experiments began in 1951 when the Columbia Music Department acquired an Ampex 400 tape recorder, which together with a microphone, a pair of earphones, and a borrowed Magnecord recorder, constituted the entire equipment of the first American electronic-music studio.

These early experiments, by Ussachevsky alone and also with Otto Luening, were presented at Columbia and later that summer at Bennington College and in Woodstock, New York—not yet famous for rock music but the summer home of that inveterate experimenter and new-musical resource maven Henry Cowell. They involved tape manipulations—changes of speed, feedback effects between two tape recorders, and some razor blade editing—of recorded vocal and instrumental sounds.

On November 22, also in 1952 and also in the presence of this writer, some of these new works were presented in the auditorium of the Museum of Modern Art by another apostle of new musical ideas, Leopold Stokowski. The term “tape music” came to be applied to this work, in contradistinction to the French *musique concrète* and the German *elektronische musik*. Some of the original Ussachevsky works from this period (*Transposition, Reverberation, Experiment, Composition, Underwater Valse, and Sonic Contours*) were subsequently issued on Folkways and Desto LP albums.

By 1955, grants from the Rockefeller Foundation and support from Columbia University enabled Ussachevsky and Luening to enlarge their nascent studio and move it from their apartments to a small Victorian building on the Columbia campus. This was (fittingly, according to some) the last, shortly-to-be-demolished relic of the original Bloomingdale Asylum for the Insane, which had occupied the site before Columbia took it over. By the end of the fifties, with the addition of equipment from RCA and Bell Labs in Princeton, the enterprise expanded into the Columbia-Princeton Center with studios both at McMillan and in the Prentis Building at 125th Street; Ussachevsky was, from the beginning, Chairman of the Committee of Direction. All of the tape pieces on this recording, including the original versions of the *Creation Prologue* and *Interlude*, date from this period of transition and transformation.

It is perhaps not far-fetched to describe Ussachevsky as one of the most enigmatic and self-effacing figures in new American music after World War II. He was an intensely personal man who combined Old World charm and courtliness with humor and American get-up-and-go. He talked little about himself or the fact that he had been brought up in an unusual time and place that had already ceased to exist.

**Vladimir Alexei Ussachevsky** (*d* 1990) was born on October 21, 1911, possibly in a place called Hailar or Hailearh which, depending on your politics or what authority you consult, was located in China, Manchuria, Mongolia, or Inner Mongolia; it was, in any case, near the Siberian border. In the wake of the

Russo-Japanese war of 1905, the composer's father, Alexei Ussachevsky, an officer in the Russian army, had been sent by the Tsar as commander of Russian border forces and to oversee construction of the branch of the Trans-Siberian Railroad, which extended into China.

There is some reason to think that at the time of Vladimir's birth, the family actually lived on the Russian side of the border. In any case, Alexei seems to have been active as a Russian organizer of Chinese/Manchurian armed forces possibly as a bulwark against continuing threats from the Japanese. For these services, the Tsar designated Alexei as a Prince of Mongolia, a hereditary title which presumably should have descended afterward to his son. Vladimir loved to pooh-pooh the story but never actually denied it!

In 1914, World War I broke out in Europe and three years later the Tsar was deposed, the Bolsheviks took over, and Russia became the Soviet Union. The Ussachevskys were now settled in Hailar which, as a focal point for White Russian refugees from the Communist regime, became a middle-class Russian enclave. The family home was said to have been the site of extensive musical (instrumental and vocal) and theatrical activity. Vladimir's mother, Maria Mihailovna Panoff, was a trained pianist and piano teacher and his four brothers and sisters were all musical. He himself served as a psalm reader and altar boy in the local Russian Orthodox Church, which he recalled as having an excellent choir with a wide repertoire of Russian sacred music from the traditional to Tchaikovsky and Rachmaninoff. Apparently social life in Hailar involved more than church-going and home musicales, as the young Vladimir also improvised accompaniments for silent films and played in local dance bands.

The next part of the story is shrouded in mystery. Unrest in the area and the threat or actuality of Japanese invasion seems to have put an end to this idyllic exile. It appears that by 1930, the family had broken up; Ussachevsky never talked about the details, and the circumstances are difficult if not impossible to reconstruct. Part of the family went back to Russia; Alexei is said to have died in the Gulag. Maria Mihailovna and her sons made their way across China and the Pacific to the United States, settling in California.

One can only imagine what a change of environment and life style it was to go from a Russian enclave in Manchuria to a still relatively bucolic southern California, where the teen-aged Vladimir resolved to pursue a career as a musician. It was here that he was introduced to the music of Johann Sebastian Bach and had his first experiences of hearing live orchestral music. He studied at Pasadena Junior College and Pomona College, both in the Los Angeles area, and at the Eastman School of Music in Rochester, New York, where he worked with Howard Hanson, Bernard Rogers, and Burrill Phillips, earning both a masters and doctorate in composition.

After a brief career in the early 1940s as a music teacher in Vermont and an assistant choral conductor in southern California, Ussachevsky was drafted into the United States Army, which recognized the usefulness of his knowledge of Russian and Chinese and assigned him to the Office of Strategic Services, the Secret Service of the day. In 1943, he was sent by the Army for additional training at the University of Washington in Seattle, where he met and married Elizabeth Denison Kray. In later years, Betty Ussachevsky was herself a well-known figure on the New York artistic and literary scene and served as Executive Director of the Academy of American Poets in New York.

After World War II and another teaching stint in Vermont, Ussachevsky was appointed as a lecturer on the Columbia music faculty, eventually rising through the ranks to become a full professor. Although he was associated with Columbia for the rest of his life, he also served several terms as composer-in-residence at the University of Utah in Salt Lake City. He received two Guggenheim Fellowships, membership in the National Institute of Arts and Letters, awards and grants from the National Endowment for the Arts, Creative Artists Public Service Program, National Endowment for the Humanities, University of Rochester, and Pomona College. He was president of the American Composers

Alliance between 1968 and 1970 and served as both a board and advisory panel member of Composers Recordings, Inc. (CRI).

Several of Ussachevsky's works are collaborations with other composers, notably with his colleague at Columbia, Otto Luening: *Incantation for Tape Recording* (1953), *Ballet of Identity* (1954), *Rhapsodic Variations* for orchestra and tape recorder (1954), *Poem in Cycles and Bells* for tape recorder and orchestra (1954), and *Concerted Piece for Tape Recorder and Orchestra* (1960). Later collaborators included the younger Columbia composers Pril Smiley and Alice Shields.

In addition to the pieces presented here, his major solo compositions include *Piece for Tape Recorder* (1955), *Metamorphosis for Tape Recorder* (1955), *Studies in Sound, Plus* (1958), *Conflict* (1971), *Colloquy for Orchestra, Tape Recorder, and Various Chairs* (1976), and *Celebration for String Orchestra and Electronic Valve Instrument* (1980). An important part of his work consisted of theater, film, and television scores including, remarkably, tape interludes for at least two major operas by other composers, Robert Ward's *The Crucible* (1961) and Marvin David Levy's *Mourning Becomes Electra* (1967).

Although tape manipulation of recorded musical and vocal sounds was the hallmark of his early electro-acoustic music, later works also incorporated recorded environmental sounds *à la musique concrète* as well as analog and digital electronic sound sources. Also, in addition to tape manipulation and splicing, he later used electronic and digital techniques of sound modification, anticipating many later developments in synthesizer and computer music. Ussachevsky died in New York in 1990.

The earliest works on this recording, *Metamorphosis* (1957) and *Linear Contrasts* (1958), date from the days of the Columbia Tape Music Studio and were originally released on Son Nova records. Both pieces use sound sources recorded onto magnetic tape and then altered by the use of various techniques including speed variation and feedback between multiple tape recorders, filters, reverberation, and a device known as the *klangumwandler*, which alters the ratios between the harmonics of given tones. In 1976, these pieces were remixed by the composer from the original materials and reissued by CRI as part of an album entitled "Electronic Pioneers" (CRI SD 356).

*Wireless Fantasy* (1960) has a notable historical background. It was commissioned by a group of early radio buffs and researchers known as the De Forrest Pioneers, named for Lee De Forrest, whose invention of the vacuum tube made modern radio and recording possible. The piece is meant to evoke the early period of radio communication by using wireless code as a primary sound source. For this purpose, Ussachevsky recorded signals tapped out by an early radio pioneer, Ed G. Raser, on old spark generators in his W2ZI Historical Wireless Museum in Trenton, New Jersey. The following signals can be heard extensively in the piece: QST, a stand-by call meant to alert listeners to a forthcoming broadcast or announcement of note; DF, the ID call of the Manhattan Beach radio station, one of the best known of the early broadcasters, with a range from Nova Scotia to the Caribbean; WA NY for the Waldorf-Astoria Station, which started broadcasting in 1910; DOC DF, De Forrest's own code nickname; and, finally, AR for "end of message" and "GN" for good night. Under the montage of wireless signals, we hear a fragment of Wagner's *Parsifal*, electronically treated to sound like a short-wave transmission. With this, Ussachevsky is evoking the fact that Lee De Forrest used the music-drama, then being heard for the first time outside of Germany, for his first musical broadcast.

*Of Wood and Brass* (1965) is named for the original recorded sound materials that are used: trombone, trumpet, xylophone, trombone again, and Korean gong. These are mixed with electronic sounds and altered by the various tape and tape recorder techniques that were the composer's hallmark, with results that are often far removed from the original acoustic sounds.

*Wireless Fantasy* and *Of Wood and Brass* were some of the first pieces to be produced at the new Columbia-Princeton Electronic Music Center, which officially went into operation in early 1959. The

pieces were originally issued on a CRI recording (CRI SD 227) in the mid-1960s with the aid of funds from the American Academy of Arts and Letters.

*Computer Piece No. 1* and *Two Sketches for a Computer Piece* represent still another phase in Ussachevsky's work. They were both made using digital sound sources from Bell Telephone Labs in Princeton, then the world's major center for experimental computer and digital sound synthesis. These sounds were then manipulated and shaped by Ussachevsky, using analog devices in the Columbia-Princeton studio.

Dating from 1968, *Computer Piece No. 1* employs three types of material. The opening and closing of the piece is a highly transformed version of sounds originally generated on the digital computer GE 635 by physicist-composer Jean-Claude Risset. A succession of four-note sound clusters was synthesized for Ussachevsky by F.R. Moore and also used in the work together with recorded musical sources (gong, distorted speech, electronic organ, etc.). Everything was stored digitally and then recalled and converted (or reconverted) to analog form where it was subject to further manipulations in the studio.

The *Two Sketches* were produced with a DDP224 computer and a program called GRØØVE developed by Max Matthews and F.R. Moore. This was essentially an early form of MIDI; that is, a tunable succession of pitches was produced by playing a keyboard attached to the computer, which in turn sent voltages to (or through) generators, amplifiers, and a band-pass filter. In addition, the piece employs a random set of untuned pitches generated in both random and rigid rhythms and loudnesses plus some other keyboard-controlled percussion. The sounds of this piece were therefore mostly produced in real time, making it an early predecessor of synthesizer keyboard music.

The *Computer Piece No. 1* and *Two Sketches* were originally issued as part of the *Columbia-Princeton Electronic Music Center Tenth Anniversary Album* (CRI SD 268), a boxed set that was funded with the help of several foundations and donors that became a collector's item.

The final two works on this CD make extensive use of the human voice. The first of these, *Three Scenes from The Creation*, has a complex history. The *Prologue* and *Interlude*, created in 1960, had their original premieres in May 1961, at the first concert of music from the new Columbia-Princeton Electronic Music Center. The choral part had been recorded in two-to four-measure segments earlier that year by Ian Morton and the Macalester College Chamber Choir in St. Paul, Minnesota. The texts come from Ovid's *Metamorphosis* and the Akkadian creation epic *Enuma Elish*, telling the story of the primordial gods and their struggle to create order out of chaos. The recorded choral tracks were edited, assembled, and manipulated "with electronic accompaniment" in the studio. The *Prologue* was played in concert and also issued on a Columbia recording. The *Interlude*, originally *Interlude and Conflict*, dates from the same time and used recorded soprano and bass voices with electronic and *concrète* sounds and a live mezzo-soprano.

In 1973, Ussachevsky came back to these pieces, reworking them for a new recording (*Choral Music of Vladimir Ussachevsky*, CRI SD 297) and adding a choral Epilogue based on the poem "Spell of Creation" by the English poet Kathleen Raine. He had to re-edit and re-synchronize the original tracks, keeping the freshness that remained in the twelve-year-old recordings and reconciling them with newly recorded material (including the mezzo-soprano part which was newly recorded by Alice Shields). In addition to the vocal and electronic sounds, recordings of piano, bell, and Chinese dinner plate sound are used, modified with the studio techniques that the composer had developed over the years.

In the early 1970s, Ussachevsky returned to acoustic music after nearly two decades of immersion in the electronic medium. It was natural for him to use choral music as the medium of this return. The composer wrote that "growing up as I did in the Russian Orthodox Church, serving as reader and altar boy, the sound of the choir singing the traditional service and works by all the best nineteenth-century Russian

composers left an indelible impression. . . .” In addition, as we have seen, solo and choral vocal sounds play an important part in some of his electronic and tape music work and are the main elements of *Creation*.

The *Missa Brevis*, fulfilling an earlier commission from Broadcast Music, Inc., was begun in 1971 during one of the composer’s residencies at the University of Utah. It was completed in early 1972 at his farm in Shannock, Rhode Island, and orchestrated for ten brass instruments later the same year in Salt Lake City. The work uses the traditional core texts of the mass—Kyrie, Sanctus, Benedictus, and Agnus Dei—without any particular reference to electronic music.

—Eric Salzman

## SELECTED DISCOGRAPHY

### Vladimir Ussachevsky

*Film Music*. New World Records 80389-2.

*Pioneers of Electronic Music*. New World Records 80644-2.

### Electronic/Electro-acoustic music titles on New World Records

Milton Babbitt. *Philomel*. New World Records 80466-2.

*Columbia-Princeton Electronic Music Center 1961–1973*. New World Records 80521-2.

Alvin Curran. *Maritime Rites*. New World Records 80625-2.

Kenneth Gaburo. *Five Works for Voices, Instruments, and Electronics*. New World Records 80585-2.

Alvin Lucier. *Vespers and Other Early Works*. New World Records 80604-2.

Ingram Marshall. *Ikon and Other Early Works*. New World Records 80577-2.

Richard Maxfield. *The Oak of the Golden Dreams*. New World Records 80555-2.

Gordon Mumma. *Electronic Music of Theatre and Public Activity*. New World Records 80632-2.

*New Music for Electronic and Recorded Media: Women in Electronic Music–1977*. New World Records 80653-2.

James Tenney. *Selected Works 1961–1969*. New World Records 80570-2.

David Tudor. *Rainforest* (two versions). New World Records 80651-2.

David Tudor/John Cage. *Rainforest 3/Mureau* (simultaneous performance). New World Records 80540-2.

## SELECTED BIBLIOGRAPHY

Gann, Kyle. *American Music in the Twentieth Century*. New York: Schirmer Books, 1998: 256–261.

Holmes, Thom. *Electronic and Experimental Music: Pioneers in Technology and Composition*. 2nd edition. New York: Routledge, 2002: 105–112.

Shields, Alice. “Columbia-Princeton Electronic Music Center,” liner note essay in *Columbia-Princeton Electronic Music Center 1961–1973*. New World Records 80521-2.

Digitally remastered by Joseph R. Dalton and Robert Wolff, engineer, at Sony Music Studios, NYC.

Digital mastering of reissue: Paul Zinman, SoundByte Productions, NYC

Cover design: Bob Defrin Design, Inc., NYC

*Of Wood and Brass* and *Wireless Fantasy* from CRI SD 277 (1965). *Three Scenes from The Creation* and *Missa Brevis* from CRI SD 297 (1973), produced by Carter Harman and Vladimir Ussachevsky; original recording supported by a grant from the American Composers Alliance. *Metamorphosis* and *Linear Contrasts* from CRI SD 356 (1976), produced by Carter Harman, originally released with assistance from the Alice M. Ditson Fund of Columbia University. *Computer Piece No. 1* and *Two Sketches for a Computer Piece* from CRI SD 268.

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ELECTRONIC AND ACOUSTIC WORKS 1957–1972

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1. *Metamorphosis* (1957) 5:22
2. *Linear Contrasts* (1958) 3:42
3. *Wireless Fantasy* (1960) 4:36
4. *Of Wood and Brass* (1965) 4:21
5. *Computer Piece No. 1* (1968) 3:42

*Two Sketches for a Computer Piece* (1971)

6. I. Sketch 1 :57
7. II. Sketch 2 2:11

Works for electronic tape realized at the Columbia-Princeton Electronic Music Center, New York City.

*Three Scenes from The Creation* (1960; rev. 1973) 20:46

8. I. Prologue: Enuma Elish 8:34

Macalester College Chamber Chorus, Ian Morton, conductor

9. II. Interlude 3:48

Alice Shields, mezzo-soprano

10. III. Epilogue: Spell of Creation 8:24

University of Utah A Capella Chorus, Newell Weight, conductor

Electronic sounds and modification of voices realized at the Columbia-Princeton Electronic Music Center, New York City.

*Missa Brevis* (1972) 17:30

11. I. Kyrie 2:08
12. II. Sanctus 6:37
13. III. Benedictus 4:25
14. IV. Agnus Dei 4:20

Jo Ann Ottley, soprano; chorus of the University of Utah; brasses from the Utah Symphony; Newell Weight, conductor

Total Time: 63:55

This recording was originally issued as CRI 813.

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