

# twentieth-century analysis: essays in miniature

by lothar klein

EDGARD VARÈSE. In describing Edgard Varèse as a musical engineer, no aspersion is intended. Speaking of his compositional approach, the composer often referred to himself as "a worker in rhythms, frequencies, and intensities." This confession was not one of modesty, but of fact. No composer has sought a union of science and musical creation more fervently than Edgard Varèse. One glance into the studio of this musical pioneer would quickly dispel the popular notion of what a composer's sanctuary is like. Graphs, acoustical apparatus, tape recorders, percussive paraphernalia, gave Varèse's studio the appearance of a workshop where things are measured and made.

Paris-born in 1883, the son of an engineer and paternally destined to follow in his father's footsteps, Varèse is a unique figure whose adolescence experienced the *fin-de-siècle* death of a culture and the advancing religiosity of science. Like many of his contemporaries—Stravinsky, Bartok, and Webern—Varèse was simply bored with the traditions of Western musical procedure. With Debussy, who encouraged the young engineer turned musician, Varèse studied the Orient for inspiration. Exotic scales and imported *Chinoiserie* did not, however, attract Varèse as they had Debussy. Imbued with scientific logic, the engineer-musician's mind inevitably seized on the acoustical concepts of Oriental music as a rejuvenating source for Western music. No early twentieth-century innovation—Stravinsky's rhythmic savagery or Bartok's glorification of folk music as a basis for symphonic

gesture—dared attack the tempered tuning system. Varèse courageously envisioned a music emancipated from tempered tuning, offering micro divisions of pitches, new scale formations, and the keenest possible differentiation of timbre. Traditional instruments, all consenting to tempered tuning, could not successfully produce such aural adumbrations. From his historical vantage point of 1917 (many key

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This article is the fifth in a series of "Essays in Miniature" featuring important musical compositions and developments of the twentieth century. The series includes analyses of works by Schoenberg, Hindemith, Stravinsky, Stockhausen, Cage, and others. The author is Assistant Professor of Theory-Composition, Department of Music, The University of Texas, Austin.

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twentieth-century masterworks had already been composed) Varèse stated: "Science alone can infuse music with new vigor." The prophecy that "musician and scientist must collaborate" reveals the direction Varèse's thought was to take. While this scientism, embraced by many composers today, may strike one as a bit naive, Varèse remained a lifelong romantic at heart, one who in later years still admitted to choking up when hearing *Parsifal*.

Varèse, the man, did nothing half-heartedly. Aware that old orders were passing away, this zealous explorer forsook Europe, the culture and the continent, for America. Greenwich Village was to be his new home. During this forty-year residence, Varèse wrote those works and formulated those ideas which now find response in the ears and minds of younger com-

posers the world over. Without Varèse, idealistically and practically, our most recent musical developments would be inconceivable. New music's course in America is heavily indebted to his guiding spirit for, as founder of the International Composer's Guild in 1921, Varèse introduced almost every influential figure of early twentieth-century music to American shores.

Every great composer redefines music, consciously or subconsciously, in his own terms. Varèse's overhauling of music couples scientific terminology with a philosophical mystique regarding the nature of sound. This quasi-Buddhist view explained "sound as living matter" and "musical space as open rather than bounded." In the primary or technical sense, rhythm and form assumed the greatest significance in Varèse's definitions. Rhythm was, for him, "a simultaneous interplay of unrelated events that intervene at calculated, but not regular time lapses." While examples concretely illustrating this idea can be found in Webern and some Schoenberg, form is given a more startling conceptualization. The creation of form evolving is likened to the scientific process of crystallization. A crystal's external, finished form is the result of its internal composition; the build up of indigenous, interacting, and repelling atom units eventually forms the crystal. Crystal form results from the interaction and ordering of repulsive forces. The analogy of musical form creating itself becomes apparent if one regards musical elements as interacting, shaping forces. Considered this way, form becomes an eventual result rather than a preconceived matrix awaiting fulfillment. Atom-

<sup>1</sup>All quotations are from various lectures of Varèse. See *Perspectives of New Music*, Fall-Winter 1966, 11-19.

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ized musical elements, zones of intensities characterized by various timbres and volumes become, for Varèse, sound masses. As timbre has density, so density may multiply to form a sound mass. Although sound masses might be compared to multi-textural harmonic blocks, harmony, in word and concept, seldom occurs in Varèse. While harmony can also be interpreted as texture, this music is anti-harmonic in purposely negating acoustical relations of harmonic expansion. Compositional working procedure assembles strata of densities to form sound masses; it is the ordered interpenetration of these masses which forms the composition. The effect of music so conceived is analogous to the collision of cloud formations. Melody was to be the total integration of the entire work. Varèse's music is music heard in refraction, with all events spaced in their own oxygenation. One might expect such sound-for-sound's-sake music to reflect a sensuously impressionistic hue, but purity of structure and the free will of sound are Varèse's objectives.

The human involvement in such an approach might seem one of detached frigidity. Handled by imitators, Varèse's ideas often beget little else than test-tube music, for ideas are seldom better than the talents behind them. With Varèse, dry mechanics are propelled by individual urgency and primitive power. The composer despises rococo grace and delicacy as an artistic betrayal of the spirit of our age. No music better illustrates this than *Ionization* (1930), a work exhibiting more radical musical departures than any comparable work of that decade, for *Ionization* is music minus pitch. Demanding thirteen percussionists playing thirty-five instruments, *Ionization* hurls planes of rhythm and timbre into space like a jutting monolith suddenly come to life. By adding and subtracting timbres with sound masses, interlocking planes achieve a sense of spatial construction. (While harmonically postulated music gives a sense of movement, a distanced opposition of timbres creates the illusion of space.) Out of this seething, metallic, membraned wilderness, a siren curve shrieks into the void. Varèse has bequeathed the world of percussion

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new honor as a twentieth-century protagonist. The clangorous epilogue, introducing chimes and piano, is one luminous reverberation broken loose from the preceding chaotic crescendo.

In his quest for "an open rather than bounded" musical space, Varèse attempted to liberate sound from mechanical limitations. Instrumental capabilities proved insufficient in realizing an ideal, legato sound continuum in which quality, pitch, and intensity could be perfectly controlled; to obtain this, Varèse could only continue to work via electronic means. Repeated unsuccessful requests to prominent firms and foundations for assistance in founding an electronic studio prevented Varèse from continuing his research for twenty years. Finally, in 1958, the composer provided electronic music for the Philips Pavilion designed by Le Corbusier at the Brussels World's Fair. This work, *Poème Electronique* makes an immediate impact. In all of Varèse's computations there is always an identifiable human element. The climax of this, Varèse's last complete work, occurs when a single human scream rises above electronic roars and the tolling of bells. Varèse's sound-for-sound's-sake ideal has given way to a personal indictment; the composer's credo, "art must keep pace with science," has turned into a love-hate relationship. Primitive force, as old as life itself, is powerless against this age; science rebels against itself.

Edgard Varèse, eighty-one years old, died in 1965. Music, *sans organisés*, was for him a ritual, celebrating the kinship of art and science. Methodology, in the sense of our present-day desire for standardization, did not interest him; only perfection of an auditory dream mattered. Learned in his own cabalistic mysteries, he sought, like an alchemist of old, to liberate the human spirit through the magic transcendence of sound. For many years a prophet denied honor in his adopted land, recognition is slowly coming to Varèse. Shortly before his death, Varèse made a comment to which he was well entitled. "The avant-garde? There is no avant-garde, only people who are a little late."

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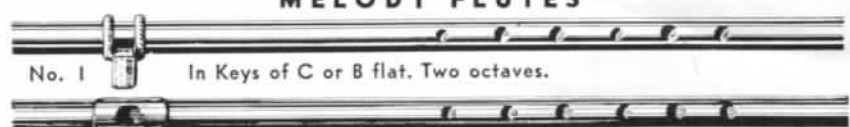
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