To complete the logical progression in concreteness from theory to history to analysis, the dissertation closes with an examination of the *Gebet einer Jungfrau* by Badarczewska, an *Air Suisse* of Adam, the Bach-Gounod *Méditation*, and the Liszt transcription of Schumann's *Widmung*. The illustrations are well-chosen and produce an interesting composite reaction—in the modern listener—of irritation, amusement, and incredulity.

Certain features of Dr. Eggli's book are rather too obviously reflective of the schoolroom: the regular alternation of statements and supporting citations, for example, and a heavy reliance on the opinions of others (which are presented in turn with little comment or evaluation) instead of the independent organization of ideas or the clarification of basic issues. But these perennial properties of dissertations possess at least the virtues of honesty and accuracy and are hardly to be considered serious blemishes. For the rest the present study is an excellent example of what musicology should more often be: it has a broad social perspective, it expands the traditional subject matter of musical history from elevated types of music to more humble kinds, and it turns our attention to matters of value in addition to those of style. This is a course most highly to be recommended, both for its own sake and for the light it casts on the very greatest achievements of art. How much more actual the world of Mendelssohn, Chopin, or Schumann becomes when we have read a study of this kind; and how much more we know of these composers of the first rank. For to know their artistic and social world fully, as Dr. Eggli's work will demonstrate, is also to understand their music more completely.

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James Tenney
Meta (+) Hodos: a phenomenology of twentieth-century musical materials and an approach to the study of form

New Orleans: Inter-American Institute for Musical Research, Tulane University, 1964.

John R. White

The *Met-hod* of this paper may be called Martian. Examining the audible fabrications composed, executed, and heard down here, Tenney reports back on our present peculiar habits in disposing sound phenomena, perceiving their arrangements, and as we say we do, making "sense" of them. His descriptions are accurate and insightful, though on the whole he has to take our word that it all means what we say it does.

This is the phenomenological approach: to assume a naive, know-nothing stance and to describe anew and in great detail the factors of a par-

ticular experience. The end in view is a fresh conceptual framework more nearly true to the reality of the experience and undistorted by prejudices and inappropriate habits. That the most interesting 20th-century music and much older music sorely needs this treatment should be obvious. On the elementary level most of our notions are negative and useless, such as "atonal" and "athematic." Advanced discussions along the lines of "How I Wrote My Last Piece" impart information of an entirely different order from the information gained in the auditory experience. Tenny is solely and seriously concerned with what is heard in the newer music and to what effect. He has made an important beginning that deserves wide discussion.

He is admittedly indebted to ideas and approaches in the *Gestalt* psychology of Wertheimer, Koffka, and Koehler. They come to his assistance in the formulation of the main notions of his conceptual package and the devising of a descriptive terminology unclouded by memories of the past. Melody, harmony, accompaniment and such notions, even where they may linger on as remnants in new music, are replaced by "musical parameters." A bit of motivic development in the old-fashioned way becomes a "metamorphic sequence," showing "the relation of partial similarity between two sound-configurations revealing or implying some kind of morphological transformation by means of which one was or might have been derived from the other." Tenney differentiates seven parameters of sound-configuration: pitch, loudness, timbre, duration, temporal density, vertical density, and time-envelope (only the last needs his explanation that it concerns the attack and decay of an elementary tone); but he leaves room for more in special cases, such as pitch-range, degree of parametric articulation, etc. Following through, I think he should have designated these other possibilities "paraparameters."

The extreme liberality and variability of parametric "focus" and parametric "scale" in new music lead Tenney to the central problem of his paper. What is a musical idea in these new terms, and how do these ideas go on? In his words, "we must admit a 'material equivalence'—with respect to their potential function (as musical ideas)—of much greater variety of sounds and sound-configurations than would have been justified or necessary in pre-20th-century music. . . . Whether a given sound or sound-configuration is to be considered merely as an element or as a more self-sufficient musical idea depends almost entirely upon the musical context in which it is heard. There is virtually no objective characteristic of the sound itself which can show the analyst in which of these two categories it ought to be placed. Only its function in the larger design can reveal this."

From here on Tenney's considerations are entirely contextual, translating into terms of a complex auditory situation the *Gestalt*-ideas of Wertheimer's very important *Laws of Organization in Perceptual Forms* (1923). For any given musical experience he takes a running account of parametric profiles (at least seven), any one or several of which will tend to form "sound-units" (cohesion) and to make distinctions between sound-units (segregation) according to laws of (1) "proximity," (2) "similarity," (3) "intensity," (4) "repetition," and the special cases of (5) "objective" and (6) "subjective set." All are self-evident except (5) and (6). The word "set" is used to mean a pre-existent attitude involving expectations or anticipa-

tions which may effectively determine or alter the perception of present and future events. "Objective set" refers to expectations arising during and out of a particular musical experience, while "subjective" set refers to those pre-conditioned attitudes brought from prior experience. These elegantly simple propositions are extremely useful, and a present reader may be attracted to the author's detailed explanations if he will think through the "significance" of a few familiar parametric profiles of some tried and true classic. The beauty of these concepts is that they are valid for all kinds of musical experience. And especially can we better deal with the distractions of "subjective set" when we name it and admit its presence most of the time!

Cohesion and segregation are the "facilitating conditions" that determine the perceptual organization—that is, the internal unification and mutual separation—of musical ideas. To an "idea," a primary musical unity composed of elements (parametric bits) but forming a singular aural *gestalt*, Tenny assigns the term "clang" and holds this to be the core of his conceptual approach. He likes its connotations of complex and dissonant "ringing sound" and is obviously unaware of the distressing overtones it recalls to readers of Riemann's *Harmony Simplified* in English (where overclangs are major chords and underclangs are minor: the contraclang of a principal clang is an underclang). This mid-20th-century "clang" may be a thematic motive in the old-fashioned sense, or a voice in a polyphonic ensemble, or a chord in Schoenberg's Opus 16 No. 3, or rhythm plus timbre in Varèse's *Ionisation*, etc. The only thing common to all clangs is their perceptual immediacy and singularity. A succession of clangs which tend to join up on a larger perceptual level and form a larger but weaker *gestalt* Tenney calls a "sequence." Elements form clangs and clangs form sequences—each step is delineated by the intersections of parametric profiles, by "heard" factors and no others. If indeterminate and accidental, complex musical events are perhaps not "ideas" but nevertheless form elements, clangs, and sequences according to Tenney's propositions of perceptual organization. He is quite as prepared to handle the music of Cage as that of Webern.

As his title indicates, the author approaches a morphology of musical experience through his clangs and sequences, and his paper concludes with some tentative but very pregnant statements about musical form, which is not in his view unity and coherence, relatedness and recapitulation, but quite the opposite: shape and structure, which in a temporal sense will be revealed only by the perception of differences. I choose only a few points: "The form of a musical configuration is primarily determined by the effective differences between its successive parts. . . . All parameters must be considered, and any parameter may function as the primary determinant of form. . . . The formative parameter in a given configuration is generally distinct from the cohesive parameter in that same configuration. . . . All parameter profiles are transposable." Such ideas fall over each other as they crowd in at the end of his paper. I would urge that his concluding pages form the beginning of another, yet more ambitious work. He nowhere quite says so, but the larger aspects of form among ever weakening *gestalten* must fall back on the convenient laws of cohesion and segregation that combine elements into clangs and clangs into sequences.

One may welcome and recommend the reasoned arguments of Tenney's prolegomenon without going along with his musical analyses, drawn from Ives, Ruggles, Schoenberg, Webern, and Varèse. To analyze clangs and sequences in a score (as distinct from a hearing) is to decide on performance articulations, relative weight and direction, and minute differentiations in volume and attack—what was once called "phrasing." One performer's clang may be another performer's element. Tenney's three clangs in the twenty-third measure of Opus 11 No. 3 make "choppy" music to my way of thinking Schoenberg's long Brahmsian phrases in this movement, and measure 23 I see as part of a $2\frac{1}{2}$-measure polyphonic sequence with differentiations of pitch-range requiring the most careful differentiations of "touch" between the pianist's hands.

The longest illustration, to which Tenney gives four pages of discussion, is a complex polyphonic passage from "Emerson," the second and third systems of page 3 of the Arrow score of Ives's *Concord Sonata* through the entrance of the Fifth Symphony motive on system four. All his parametric profiles do not lead him to correcting the misprint in the score. The first left hand A in the lowest stave of system 2 should be A-flat: by similarity with the five preceding repetitions of this "clang" in the right hand and by the fusty observation that the harmonic sense of the whole passage is "dominant-minor-ninth to tonic" stated twice in C and four times in B-flat.

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Hannes Reimann
Die Einführung des Kirchengesangs in der Zürcher Kirche nach der Reformation

Zürich: Zwingli-Verlag, 1959, 127p.

Elwyn A. Wienandt

A dissertation that undertakes an examination of what seems to be only a local development, one that has been copiously examined in the past, would seem to be another example of an author beating a dead horse. In this instance, however, we are treated to the results of a thorough re-appraisal of the events culminating in the restoration of organized singing to the religious service in Zurich. Reimann reviews the literature that has accumulated over a period of nearly a century, adds the results of his investigation of manuscripts from Winterthur and Zurich, and evaluates the matter anew with a fresh approach to the influence of Raphael Egli on the development of the reinstated musical practice.