I. Seeds (1956-1961; for flute, clarinet (in A), bassoon, horn, violin and 'cello)

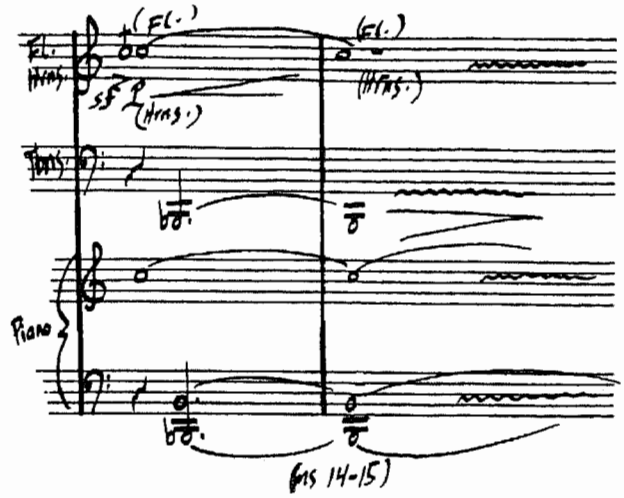
Before discussing the larger work, Seeds , I would briefly mention another work which originates in this period (later revised, in 1971), and which has much in common with it. Thirteen Ways of Looking at a Blackbird , based on a poem by Wallace Stevens, and originally scored for two flutes, violin, viola, 'cello, and tenor voice (later rescored for flute/alto flute, oboe, viola, 'cello , bass and bass voice) is a fine example of Tenney's early writing. Though not quite as developed in contrapuntal and orchestrational technique as Seeds , it remains a fresh and beautiful piece, and should certainly be performed more often than it is (almost never that I know of, with the exception of one performance at Cal. Arts, the source of the recording I've heard). If time and space permitted analysis of it here, I think we would discover many of the same intervallic, formal and contrapuntal explorations that Tenney was later to use in Seeds, Monody, and other works.

Seeds , one of Tenney's earliest works (though it was revised over a five year period), remains one of his most satisfying. In one sense, it is a six movement study in the use of simple melodic motives (notably the minor second and unison) to generate dense, yet lyrical musical structures. There are several techniques used consistently throughout the work, and indeed, these techniques become the "seeds" of many of his later musical ideas. For example, the use of klangfarbenmelodie, especially in the case of one instrument attacking and a second sustaining a given pitch (the "clang" spoken of above) is found in several later pieces, including the Swell Pieces , the Harmonia, Clang, Hey When I Sing..., Crystal Canon , and in a way the Chorales and Three Indigenous Songs. This idea is also something of a distinguishing feature in the music of Varèse, as can be seen in this example from Deserts (Example I.1; note the use of minor seconds as well).

Each of the six movements, especially the first three, is a rather singular, focused development of a simple idea, although in IV - VI this idea is not so easy to put into words, and is perhaps better understood aurally. This monothematic trend in Tenney's music grows more and more pervasive later on, finally becoming one of the central points of Tenney's aesthetic. A strong interest in timbre, and, in a related way, vertical harmonic relationships is present in Seeds , and this also presages much of Tenney's future exploration.

Seeds clearly shows Tenney's earliest musical influences: Webern (whose complete works were first appearing on record in the late 1950's), and Varèse (whom Tenney came to know personally, and who must certainly be considered Tenney's most dominant influence. In fact, Tenney is, at the present time, assisting in new editions of Varèse's

Example I.1



music). There are four rather specific musical ideas central to this work:

1) the frequent use of the minor second (minor ninth, major seventh) which indirectly, as in the case of Varèse and Ruggles, generates quasi-serial structures with little pitch class repetition.

2) short, transparent motives, continually transformed (as in Webern)

3) the special case of klangfarbenmelodie where a unison is passed from one timbre to the next ("note-passing").

4) very little extended melodic development of any kind, combined with a delicately interwoven contrapuntal texture. (Both of #3 and #4 are characteristic of Varèse as well).

Formally, Tenney seems to have set up a rather deliberate restriction for himself: the brevity of each movement does not allow him to work with extended forms. In fact, I

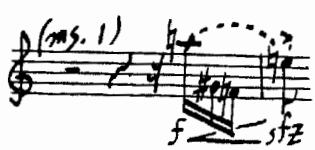
can think of no work, with the possible exception of the earliest pieces (like Thirteen Ways..., Essay for Chamber Orchestra, Sonata for 10 Wind Instruments) in which Tenney has been interested in the type of "dramatic" development conventionally associated with a large scale musical form. Although this avoidance of a certain mode of composition has become more common in the last twenty years, in the late 1950's and early 1960's it was not so - John Cage and others had begun to experiment with the removal of the composer from composition, but Tenney was one of the first to devote his explorations to what might be called "self-generating" pieces. Tenney's debt to and friendship with Cage are profound and long-lasting, and I believe he was one of the earliest composers to fully embrace and understand the latter's ideas, and then to develop and expand upon them.

The brevity is, I think, clearly out of interest and intent. In these short movements, Tenney is not thinking "formally," but in terms of musical essence: stripping the music down to motives, timbres (aggregates?), and what he later called clangs. Where traditional formal notions appear (sectionality, recapitulatory ideas, drama), they are straightfoward and elegant. There is as well a certain toying with serial procedures, though I think that Tenney devises his own concepts of seriality in much the same way Wolpe and Ruggles did - using a defined set of compositional and motivic primitives to organize the pitch material. This is not serialism per se, but rather the result of a systematic avoidance of pitch class repetition to negate tonal tendencies.

(The following analyses/description should, in an ideal world, accompany the score and/or a recording of Seeds. In the absence of these, this chapter might appear relatively dense, but still (I hope) comprehensible to the reader. I have attempted a more traditionally detailed analysis in this chapter because of the similar intent of the work itself.)

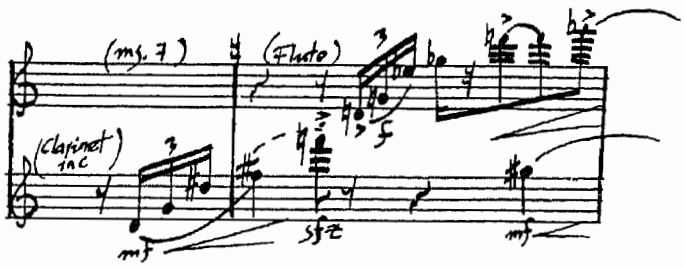
Movement I utilizes all of the above mentioned techniques. The opening flute motive (Example I.2), a series of "minor-second" intervals, generates nearly the entire movement. It reappears exactly four times, the last bringing in a sort of recapitulation at measure 12 (accompanied by a

Example I.2

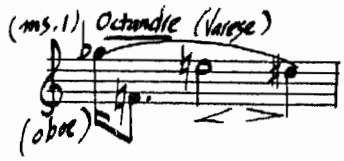


return to the initial tempo). Although it is split up, inverted, condensed, etc. throughout, its most perceptible variations occur in ms. 7-8 (Example I.3). Note the Varèse-like quality of this opening solo flute entrance (as in Example I.4, taken from Octandre). Note-passing is common as well, beginning in the first measure where the final E in the flute is preceded by a sixteenth-note anticipation in the 'cello, which holds the pitch through measure two. These passings occur in almost every measure, and the structure of the overall timbre is in some ways simply a network of the minor second and note-passing sounds. A third motif in this movement is a vertical texture derived from interlocking minor seconds, first heard in measure 5 with the entrance of all the instruments for the first time (Example I.5). The sonority recurs, like a chime tolling the musical progress, every few measures. Another interesting aspect of note-passing, or timbral melody, is the passing of the minor second motive through different instruments in complex ways. Often, the source of the first note in a half-step pair is in another instrument, as in the E in the violin to the D# in the flute in measure six. (This measure shows several uses of all these ideas). Measure six also marks the end of

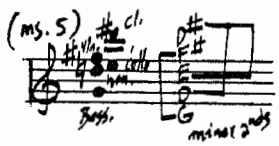
Example I.3



Example I.4



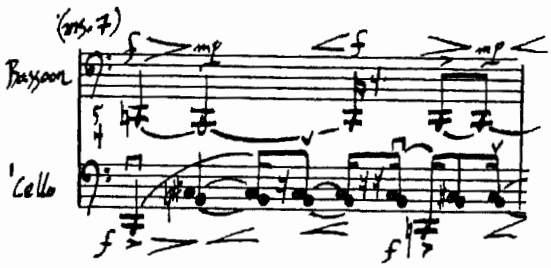
Example I.5



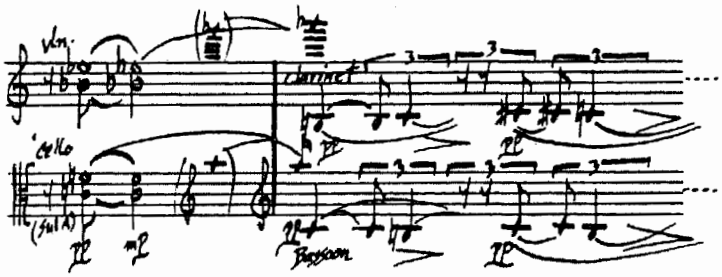
the first "section", and the low 'cello and bassoon theme in the next measure begins the next, characterized by sustained minor seconds (Example I.6a; I.6b) and more extended melodic passages, (such as the already cited figure in measure 8). Measures 10-11, a slow duet for clarinet and bassoon in minor seconds and rhythmic unison, return the piece to the initial theme, in measure 12, a kind of third section similar to the first in texture and motivic figuration.

Note that in measures 10-11 (see example I.6b), the clarinet is several times voiced under the bassoon, in much the same way as Varèse does so often; for example, the frequent voicing of the piccolo under the Eb clarinet in the second movement of Octandre, and in the final measure voicing of the clarinet under the bassoon in that same movement. Example I.7 shows this same type of voicing in a common chord from Intégrales. Much later on, in "A History of

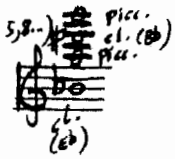
Example I.6a



Example I.6b



Example I.7



'Consonance' and 'Dissonance'", Tenney himself analyzes this same voicing in Varèse in a discussion of Helmholtz's idea that the instrumental voicings of certain dyads affect the degree of dissonance because of the particular spectral configurations of each instrument. Helmholtz declares that, for acoustical reasons, a major third will "sound better" between a clarinet and oboe when the clarinet takes D and the oboe F# (because of the coincidence of the 5th partial of the clarinet with the fourth of the oboe). If it were voiced the other way, the clarinet's lack of even partials would alter this sonority. Tenney relates this nicely to Varèse:

> "Now the question as to which of these two arrangements sounds "better" than the other obviously depends on what I have called "esthetic attitudes" toward consonance and dissonance, and it is possible to cite musical examples - especially from the 20th-century literature - in which the same acoustical considerations (and perhaps, therefore, the same form of the CDC) may well have determined the composer's decisions regarding instrumentation, even though the esthetic attitudes have been reversed. Thus, for example, the wonderfully searing dissonance (in the sense of CDC-5) created by the piccolo and Eb clarinet at rehearsal number 1 (measure 16 in the revised edition) near the beginning of the second movement of Varèse's Octandre would have been far less effective (assuming, as we may, that a strong dissonance is what Varèse wanted here) if the parts had been arranged in the more "normal" way, with the piccolo above the clarinet, since the latter instrument has very little if any energy in its second partial (i.e. at the octave) for the production of beats with the high F, whereas most of the energy in the piccolo's tone is probably concentrated precisely in that second partial."
> (p. 113)

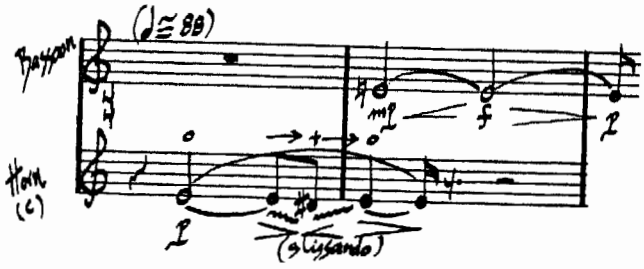
Movement II, is, for lack of a better phrase, a kind of textural rondo. It begins with a single note being "passed" through all the instruments (horn, clarinet, bassoon, 'cello, flute, and violin), a kind of natural extension of one of the generating motifs of the piece (like the famous "single-note" movement of Carter's Eight Etudes and a Fantasy for woodwind quintet (1952)). This D above middle C is the sole pitch of the first six measures. At measure 7, there is a unison flute and violin theme, consisting of the three notes E, Bb, and Eb, and this two measure duet can be seen as either a release from the first six measures or as a seperate variation in itself. The following three measures (9-11) are again middle D, with the order and rhythmic material being almost the same as the first three measures

(though the late entrances of the flute and violin are shifted in earlier, each more or less takes on the rhythm the other had before). The next section, at measure thirteen, is similar to the flute/violin variation. The 'cello's theme B-F-C descending, is the inversion of the earlier theme, and the bassoon's C#-C ascending is followed closely in canon by the 'cello. Note that when these "variations" of the unison theme occur, they are in half step relationship, or at least heavily based on half steps to the D natural. Measure 14 marks the beginning of the final section, which commences with the D being passed once again, but now all the other themes enter above it: the flute and violin theme in measure 16, the C#-C 'cello and bassoon idea of ms. 14-15. In measures 17-18, there is a sort of climax of sustained D's, earlier motives, and the use of minor ninths. At measure 19 (through 22) there is a sudden thinning of texture, and once again each instrument in its turn sounds the D natural, ending softly in the 'cello.

This movement seems to have the most transparent form of the six, yet the subtleties of rhythmic, dynamic and orchestrational manipulation are quite brilliant. An astonishing variety of musical ideas is packed into a two minute (22 measure) span, and in terms of overall elegance of design and sheer beauty of form and technique, this movement must certainly be considered one of the most interesting examples of the miniature form.

Movement III comes close to using a row, though it does not seem to employ any other standard serial techniques. The opening four-and-one-half measures (ending in ms. 5 with the C#/D sonority in the bassoon and 'cello) state the pitch sequence E-D#-G-Ab-F#-F natural-B-C, with some minor overlappings (like the bassoon repeat of E). The timbral shifts are quite beautiful and inventive, as in the first two measures between the horn and bassoon (Example I.8). Also, for the first time there seems to be a use of the "natural"

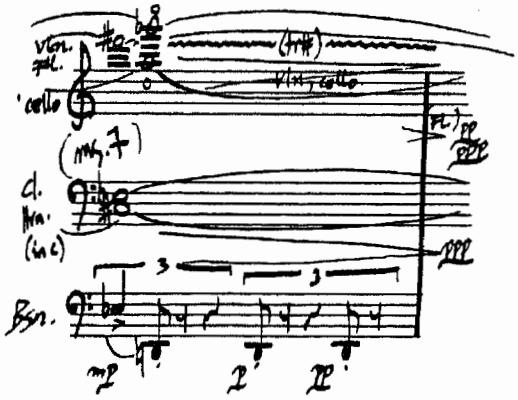
Example I.8



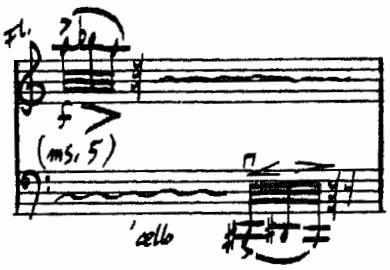
pairings of the instruments: violin/'cello, horn/bassoon and flute/clarinet. In contrast to the quite airy and spacious textures of the first four measures, the second presentation of the "row" happens quite rapidly, in the next two measures (5-6), beginning on the clarinet D#, in almost the same sequence. The last two measures consist of one sustained chord (Example I.9), with an underlying soft pulsating bassoon, whose intervallic structure is predominantly half-step relations. The tri-sectional form of this movement is rendered transparent by the contrasting textures of each part, yet there is an underlying coherence to it all, effected by the pitch system and by very ingenious transitional timbres at the "seams" (e.g. the violin glissando at the end of measure four and the sustained notes in the flute, 'cello, and violin arising from measure six). As in the other movements, there is an economy of rhythmic material that is easy to see in the score, and obvious to the ear, but hard to define. Certain simple motives are used consistently, as in Example I.10a,b and c, and in the midst of all the other complex contrapuntal activity this helps to retain (in all of the movements) a sense of stability and directness not unlike that achieved by the use of a fixed set of skeletal rhythmic prototypes in Webern's Concerto (opus 24).

Although the "essentials" - the germinating ideas and motives - are substantially the same, the forms of the first three movements are relatively precise and well defined, while in the last three these same primitives are used to generate larger and freer structures. Movements four

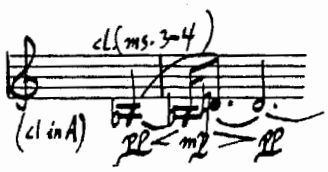
Example I.9



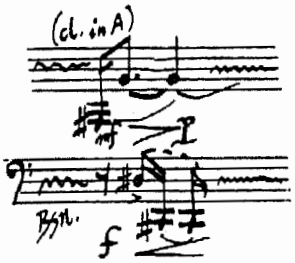
Example I.10a



Example I.10b

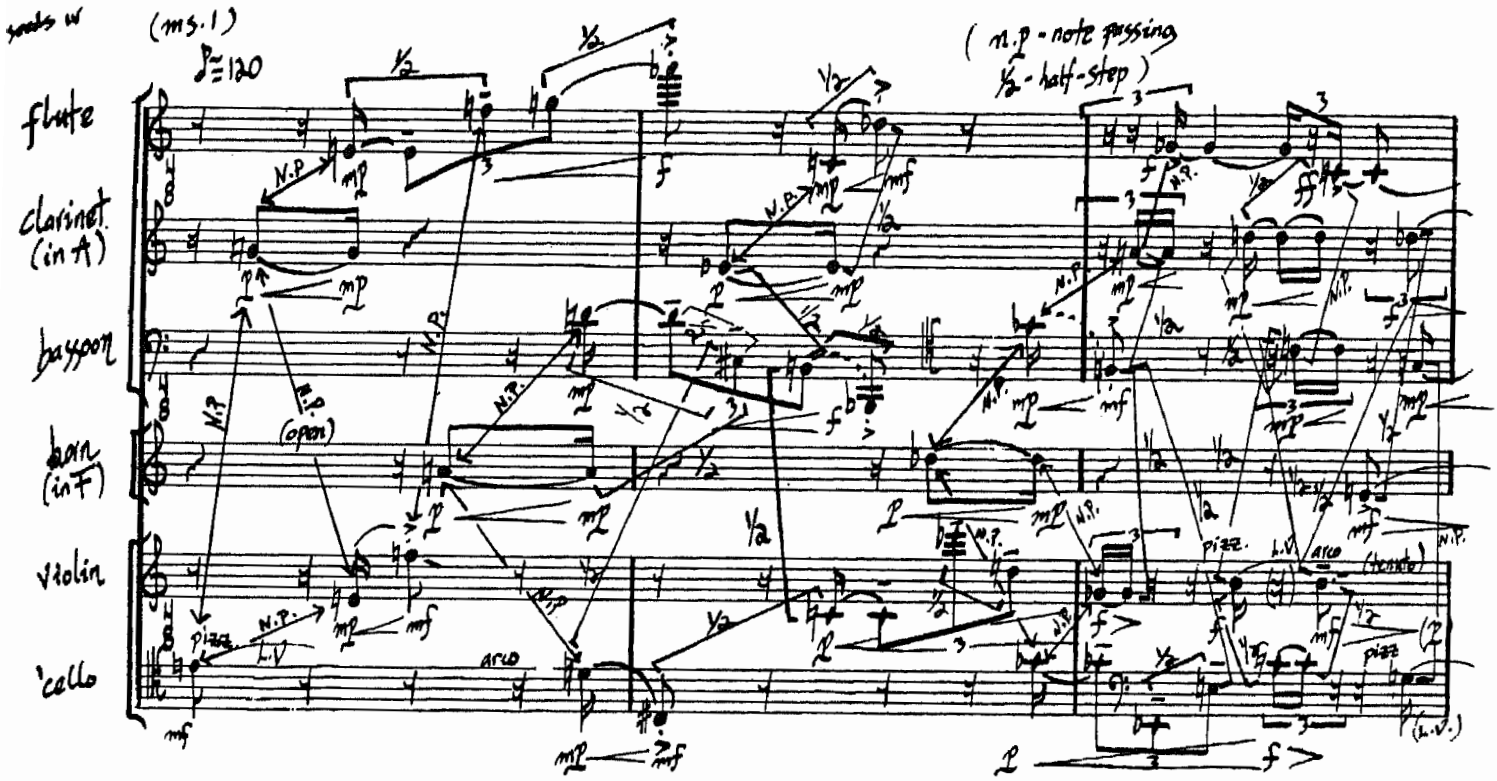


Example I.10c



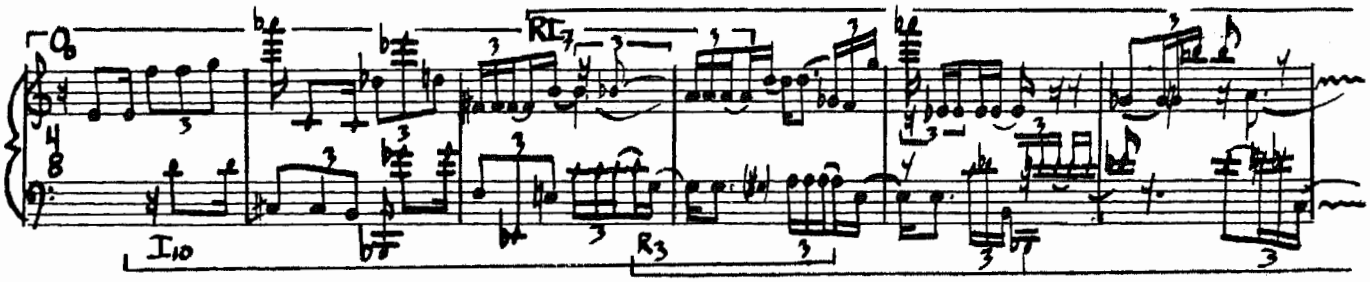
through six are more "improvisatory" and less easily analyzed. The first two measures of Movement IV give some idea of the complex intricacies that Tenney creates out of these few ideas (Example I.11a). In the example, I have indicated "note-passing" by a line with arrows and "n.p", and half-step relations by a bracket and "1/2". It can be seen that there is not a pitch in the first three measures which is not at least singly related to another pitch by these criteria (with the possible exception of the "missing" precedent for the high Eb in the violin, measure 2). I hope I can be excused for this rather extreme example of note-chasing, but my intent is to give the reader at least a small example of the type of compositional care taken in the crafting of these pieces. Although these first two measures

Example I.11



show this network of relations quite clearly, such a web is to be found in almost any given place in any of the movements. Tenney is also working serially here, in a rather strict fashion. If the flute, clarinet and violin are taken as one voice, the bassoon, horn and 'cello another, then in the first six measures we can see a strict canon on the 12-tone row: E-F-G-Ab-C-Db-Eb-D- F#-B-Bb-A, using the row transforms I0 and RI7 in the top voice, I10 and R3 in the bottom. This is shown in Example I.11b, in a skeletal form. (I am indebted to Tenney for pointing this canon out to me).

Example I.11b



There are two other structural factors operating in the first section. First, there is a kind of density envelope over the whole section, rising to an instrumental texture in measure four that is perhaps denser than any previous section in the first three movements. Second, in measures 5-6, there is the quite interesting and natural motion of several instruments gradually settling into a rhythmic regularity, although all of the patterns actually remain independent. The combination of parametric movements in density and in what we might call rhythmic entropy, combine to produce an overall sonority and form that is decidedly subtle, and although we can clearly perceive a structural directedness, I for one had to closely inspect the score to see just how it was achieved. I am reminded of a comment made by Tenney in a roundtable discussion of Nancarrow's music (transcribed in New Performance, page 36):

> "Yet they (the scores) have been extremely important, at least for me, in providing additional access to the music beyond what my ear can tell me. My ear is certainly sufficient to enjoy the music, but the scores make it possible to get inside the thing a little bit."

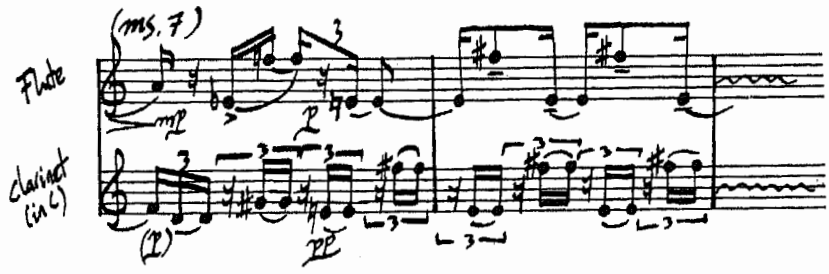
This gradual ordering of chaos becomes the basis for the second half of the piece, in which the introduction of order leads to the gradual "decay" of the system into the slow, sparse and quiet F-F♯-E natural chord which ends the piece. Measures 7-9 are a delicately intricate connection of regular patterns in the flute and clarinet (Example I.12) against semi-regular ones in the other instruments,

producing the same sorts of "note-passings" and half-step relationships as before, in a perhaps more controlled fabric. Gradually, by measure 10, the music simplifies into only three pitches: F natural (in the 'cello, bassoon and horn), and E and F# (in the remaining high register instruments), with all but the violin, 'cello, and flute remaining at the end.

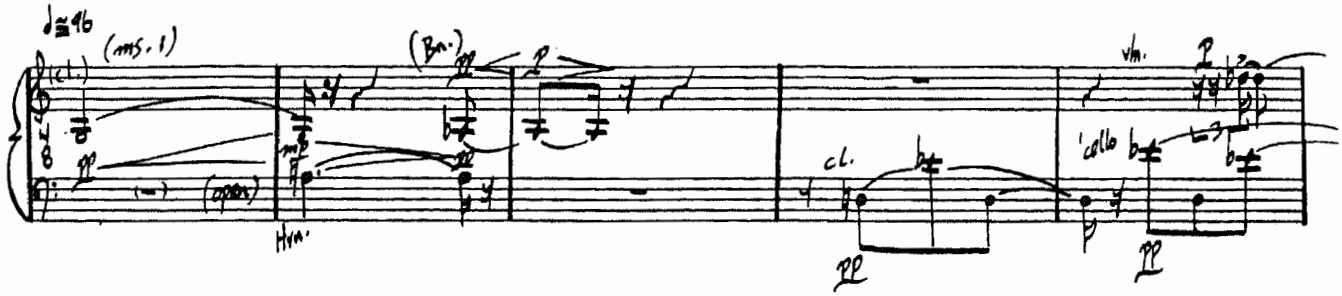
One is tempted to hear in this movement, as in much of Tenney's work, a kind of cosmological model: with the explosion at the beginning, the introduction of order, and the final decay into nothingness (or a kind of grand "clang" or "swell"). I think that these "information theoretic" ideas, which would eventually become so important to him, were early on, very present in Tenney's musical thinking. Although their more precise formulation awaits later works (MMH, the computer pieces...), they perhaps constitute one more "seed" in this work.

Movement V contains two prevalent motives, one rhythmic/melodic, and the other dynamic. They are often used in conjunction, and can both be seen in Example I.13, a reduction of the first five measures. Both of these "shapes" are closely related to and are special configurations of the generating ideas of the previous movements, but here Tenney focuses on these motives and develops them orchestrationally to a greater degree. Sometimes the motive's intervals are octave reduced (as in the resultant between the clarinet, horn and bassoon in the first three measures, Example I.14), or inverted, and sometimes they are combined and interwoven, as in the flute and clarinet passage shown in Example I.15. This type of complex resultant sonority is precisely the sort of thing that led Tenney into some of the theoretical thinking of META/HODOS and subsequent work, which provide a kind of post facto theoretical basis for works like Seeds. Note that there is a sort of serial presentation in this movement as well. The opening

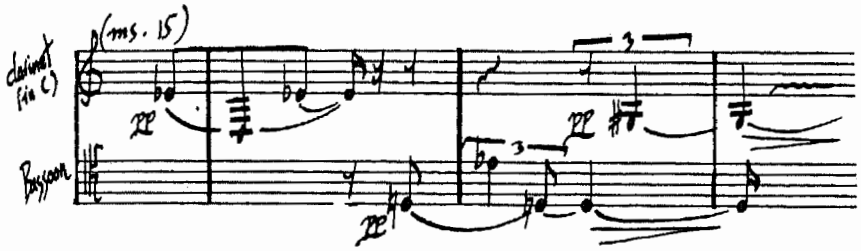
Example I.12



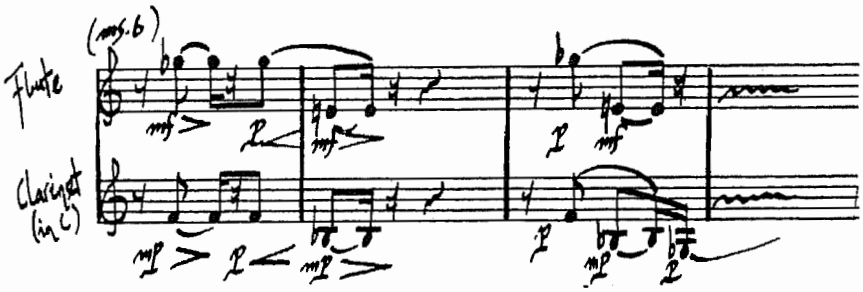
Example 1.13



Example I.14



Example I.15



pitch sequence is G-A-Ab-D-Eb-Gb-C/F-Bb/E/B, with some note-passing between the initial five and subsequent seven note group (in measure 5). Once again, this quasi-row is, I think, generated out of a simple desire not to repeat pitches, rather than out of any pre-existant dogma.

The second section has a clear figure and ground structure, with the half-note motive occurring between the four

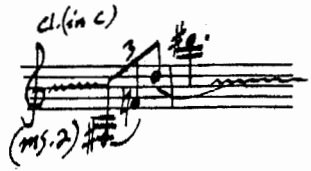
winds in various interconnected ways, and with the 'cello and violin presenting a rhythmic unison accompanied in vertical half-steps. One interesting thing about the winds is that here the motive is dovetailed in every incident. That is, the first note of any three note figure is also the middle of another. The third section is a return to the ideas and textures of the first, ending on a rather unique type of chord for this piece, composed of the notes Eb-C-Gb-D-Ab-F, which stands out in this context because of its more triadic tendencies, in spite of its unusual voicing.

Movement VI, the last, is the most extended, and in a traditional way, the climax of the work. Many of the ideas of the previous movements are quoted, combined, extended and embellished to produce a movement that is more musically dramatic than the others. Its form is more rambling, through composed and less determined, but in its five "sections" there is a kind of abstract rondo (as in II).

It begins in much the same way as several of its predecessors, with a presentation of a non-repeating pitch sequence (in the context of minor second jumps and unison timbral shifts). There is a lyrical quality to many of the instrumental lines which contributes to a more spacious polyphonic texture than in previous movements. Minor ninth leaps (Example I.16) abound, and Tenney recalls certain themes from earlier movements (compare Example I.17 to the opening flute motive in Movement I, Example I.2). In the second "section", the tempo is increased (quarter note = 88 to quarter = 112), and there is a more linear, stratified feel. There is also an important use of klangfarbenmelodie, as an E natural is passed from the horn to the bassoon, then to the violin, clarinet and 'cello. In measure six, the flute and clarinet recall the accompanying violin/'cello passage in the previous movement, playing in rhythmic unison

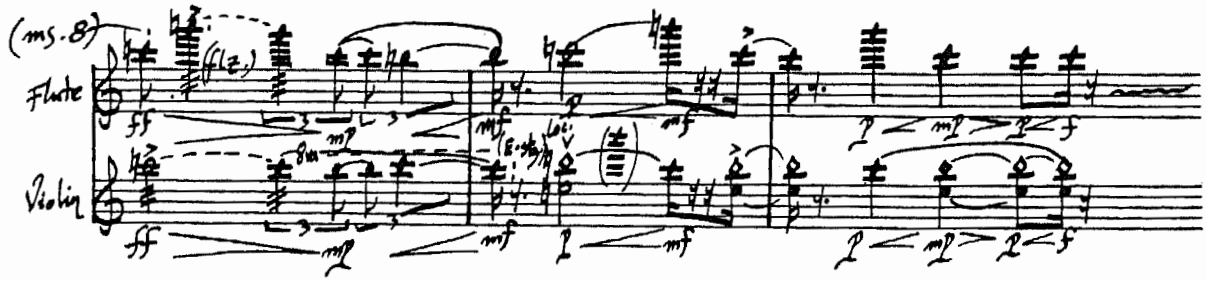
Example I.16

Example I.17

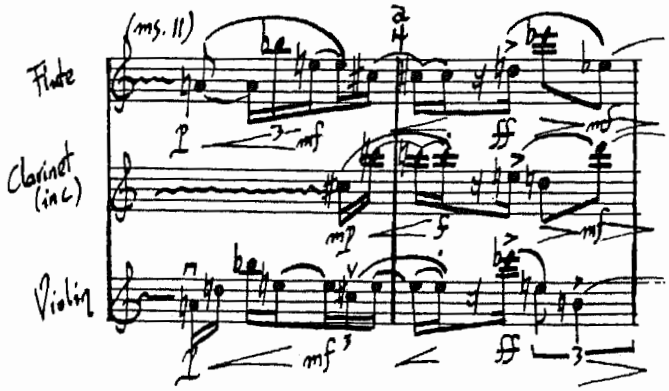


at the half-step. The third section (ms. 8-11), is introduced by an ascending, complex arpeggio in the horn, clarinet and flute up to a sustained flutter-tongued/tremolo chord in strings and flute, breaking into a a miniature inverted canon at the half step for flute and violin (Example I.18), (which is at the same time the half-step accompaniment figure). This section ends in a restatement of the opening pitch material (Ab-Gb-F-G#/A-Eb-D-Bb-E-C#). The fourth section is characterized by a greater polyphonic and rhythmic complexity and the continuation of the flute and violin rhythmic unison, now joined by the clarinet at a third half-step (Example I.19). Note that for five measures the flute and violin play as <u>one</u> instrument, with a minor

Example I.18



Example I.19



second timbre, on only a very few pitches (C and B for three measures; A, Bb, E, C# and D for two more). This section dovetails into the closing passage, almost a coda, with a remarkable one measure open horn solo (Example I.2Ø). The activity gradually winds down, with brief unison intersections from the clarinet and the bassoon. The entire piece ends on a major/minor sonority (C-E natural-Eb, in the 'cello, flute and clarinet). In general, this movement makes more use of tertial relationships than the others, and so this final sonority, which combines the half step motif with the two types of thirds, is quite expected by the ear.

Of course, no analysis/description can adequately capture the musical interest of such a work as Seeds, and it deserves much finer and more detailed attention than space allows me here. It is curious that the work has never been published, and very rarely played (no disc recording exists), for it is a classic of its genre, and an extremely important work in the evolution of Tenney's style.

Example I.20