To preface this explanation of Superior Seven and Tract, I should say that I have always thought of the orchestra as an instrument with which I am not experienced. Sometimes I wish it could be otherwise, although I am not sure that a lifetime of experience with the orchestra would have been compatible with a lifetime of experience with the kind of music I make. There are only so many things that one can do. I have known scientists, say (or writers or businessmen, whatever), who had a reputation for being good musicians, but their musicianship usually lacked something (by this I mean, simply, it was not powerfully interesting), in my opinion. I am happy with the idea that everybody should have some knowledge of music, should play a musical instrument, should recognize that music is as important to our lives as food—and that everyone should support music and musicians. (I am happy with amateur ensembles; I wish they would play more contemporary music.) But to be a musician or a composer of music is a full-time job. It seems to allow for no hobbies, no secondary area of expertise, no wisdom outside of music. This is the problem that teachers and many other serious musicians face, and certainly there are exceptions to the rule, but it is a rule that all musicians live with as best they can. In the finest and most famous examples of musicianship, it would seem even to preclude an understanding of the social world. Our musical heroes have been in many cases social deviants, if not failures. My musical heroes have been, almost to the person, socially “weird.” Nice people, maybe, to be with—sometimes; sometimes witty and handsome, sometimes good cooks, but generally “out there,” when you introduce them to persons who are socially acceptable. I didn’t understand this fact for most of my life. I thought about it a lot, but I didn’t understand. Finally, now that I am a senior citizen of sorts, I have come to recognize it as a fact of life. Specialization is where the fun is. I am a specialist, but I am not a specialist in the orchestra, because there were never orchestras in my life. I didn’t hear one from the outside—I was a bassoonist on the inside in high school—until I was eighteen years old. I must confess that when I first heard one, I cried. It was so beautiful.

I suspect that I share this schedule of experience with many composers of my age.

There was an agreement among journalists after about 1970, when America took a sharp turn to the right, to call all music that did not use traditional instruments—the orchestra or combinations of orchestral instruments—“experimental.” This was a greater disappointment to me than most things that journalists do, because it showed a deep misunderstanding of the way things were. There were noble aspirations among a few younger conductors to revive the relationship between the composer and the orchestra, but there were no orchestras to speak of—that is, orchestra players were not taught about what the orchestra might become in the composer’s imagination after the composer’s experience with, say, Debussy; orchestra players were not taught what kinds of ideas were being tried then in Europe (which is where the concept of the orchestra came from and where, in a limited but encouraging way, it continued to “grow”); there were no commissions of the sort that might be valuable to the composer, in the sense that a commission involves some sort of discussion between the composer and the orchestra; and most important of all, there was never any rehearsal time, in case an idea did not work. Orchestra commissions of the time always sounded like they were being sight-read, which in fact they were. I am sorry to say that this is still largely the case.

Anecdote Number One: A friend of mine asked Toru Takemitsu after the performance of a work commissioned and premiered by the San Francisco Orchestra how he felt about the performance. Takemitsu answered, “It was better than the rehearsal.”
I think that even for the best composer (better than I am), ideas don’t always work. That is why the orchestra piece without lots of rehearsal is in some way doomed. And dreaded by the composer.

Anecdote Number Two: The same friend told me that a distinguished violinist told him that in his youth he had played *La Mer* with Ernest Ansermet’s Orchestre de la Suisse Romande, and had remarked to Ansermet that the violin part was not the same that he had known with other orchestras. Ansermet replied that Debussy said that he had always regretted the published violin part, and so with Ansermet’s approval had written a new violin part. (Which one do we hear now?)

So, in this situation it is actually the American *orchestra* music that is truly “experimental.” When you have thought about other kinds of musical ideas, and worked with, say, electronic music for most of your composing life, the composition is anything but experimental. It is the epitome of expertise. It may be aleatoric or purposefully unpredictable in its specific sounds, or purposefully exploratory of a sound, but experimental is the wrong word, and its use has more or less divided composers among themselves. (I think John Cage coined the term “experimental” in one of his parables in *Silence* to describe his sympathy with the “objective” nature of the creative act, but I am sure he would not have coined a label, and he may even have regretted later that he told the parable at all.) Scientists do experiments. Composers make music. The making of music is an act of absolute confidence. It could not be otherwise.

Thus, *Superior Seven* and *Tract* would be experimental if they had been recorded by orchestras without my being there to change things when they had to be changed. It is a problem to write orchestra pieces that can be played after one or two rehearsals. I can’t even learn my own compositions in a six-hour rehearsal. (Recently I was listening to a performance of *La Mer* on the radio and remarking to myself on its difficulty and it occurred to me that if a composer wrote *La Mer* today, no orchestra could play it. Not enough rehearsal time.) If it were not for this drastic restriction, orchestras and orchestra literature would not be in such dire straits. And there would probably be a very different idea about electronic music, and so probably a different kind of electronic music. As Marie Antoinette said, “If tortillas were free, who would make bread?”

It is hard to take a political position on the question of electronic music, because it is so wonderful in all of its forms, and we are a lucky bunch. However, there was a lot of suffering to get here.

So, for practical purposes today, *Superior Seven* is unplayable. It requires a new approach to directing the orchestra and a new way of coordinating the parts. (*Tract* is not un-sight-readable; it has bar-lines that coordinate the parts, and there is nothing in its notation or instrumental ranges that would upset the players. But I don’t know what I would do about the “orchestration” that would not cause anxiety all around.)

When *Superior Seven* was composed (1986), the MIDI system (an acronym for Musical Instrument Digital Interface) was a barely workable technology, and I must say that because I did not own a computer then and because I was not much interested in “computer-music,” the idea of a composition that is so appropriate to MIDI could not have occurred to me. But *Superior Seven* is very appropriate to realization in MIDI, and MIDI—not an orchestra of acoustical instruments—is the technology of this recording. This is not an example of an artist being ahead of his time. And I think it is not a coincidence. MIDI and *Superior Seven* came from a larger idea that was common among composers (MIDI was invented by composers) without anyone being aware of what anyone else was
thinking or doing.

I won’t try to explain MIDI, but one basic principle is that of cause and effect: When this happens, that happens. “This” is a message from the computer; “that” is a sound from a synthesizer. The MIDI nature of Superior Seven comes in the relationship of the instrumental parts to cue lines played in the piano part. The cue lines play all of the notes of the composition (with the exception of the embellishments in the flute part.) Other instruments of the orchestra play some of those notes in exact synchronization with the cue lines and in the same register. Thus, the cue lines serve the same function as a sequence of note-instructions from the computer, and the cue lines “conduct” the entrances of all the instruments in the orchestra. There are, of course, other rules for duration, loudness, attack quality, and such, but these are equally controllable by the computer sequence.

Superior Seven was commissioned by the flutist Barbara Held, who played it a number of times in different chamber music-size versions. (The orchestra uses seven independent ensembles of various numbers of instruments. This full complement would be the orchestral mix. The work can be played in different sizes by adding ensembles in a specified order. The smallest version can be simply piano, flute, viola and electronic organ.) I had not composed for flute before Superior Seven, so I am especially indebted to Barbara Held for how the piece evolved.

Were Superior Seven to be performed by an orchestra, the conductor’s role would be similar to that of the mixer at a recording console. Each ensemble within the orchestra (of which there are seven) would be rehearsed independently for its synchronization to the cue lines and for its contribution to the sound of the final mix. Then, in performance the conductor would literally mix these ensembles in terms of loudness and timbre. This role is radically different, I think, from the kind of conducting wherein the sound of the orchestra is primarily controlled through the physical language of the beat. The conductor’s role is different, and there is not rehearsal time comparable to the amount of time a mixing engineer would require and expect in the preparation of a performance. In that respect alone the orchestra and electronic music are in two dramatically different worlds. The orchestra costs too much, and so it is unavailable to the composer as an instrument of change. And nothing dramatic has changed for the orchestra in the past four decades comparable to the changes in our ideas that have come about through electronics.

So were Superior Seven to be performed by an orchestra, there would be no need for the conductor to beat time and cue entrances. The cue lines in the piano serve that function. I should say here that in an orchestral performance, the tempo of the cue lines is allowed to be infinitely variable from moment to moment and that the pianist, in turn, is instructed to follow the decisions of the flutist, both with regard to moment-to-moment tempo and, more important, with regard to the flutist’s decisions about how elaborate—thus, how long in duration—the embellishments of the flute part will be. And so Superior Seven is a kind of “concerto” for flute, allowing the flutist a virtually unlimited freedom to display virtuosity in the embellishments and to control the overall length and mood of the performance. In this computer-designed realization of Superior Seven, tempo variations in the cue lines were not used, because the realization did not depend on the decisions of a performing flutist nor on the reaction of a live orchestra. I can only hope that someday I will be able to hear that aspect of the composition in an orchestra performance.

Tract has a different kind of history. It was composed and abandoned for its impracticalities nearly forty years ago, around 1955. The idea that was driving my musical imagination then was that pitches, as distinct members of a harmonic “aura” (without reference to harmonic “architecture”—
that is, without reference to what a succession of harmonies could produce as a musical form), could be thought of independently of their sound on a particular instrument. In other words, while the sum of the notated pitches indicated a background harmony, their actual realization on particular instruments, taking into account overtone structures and other aspects of color, made an essentially different composition for different combinations of instruments. I think this idea is peculiarly American—it addresses a poverty of real resources—and it is peculiarly a foreshadowing of electronic techniques. It is, moreover, indebted to the notion of composition that composers got from the most advanced thinking in jazz at that time.

The idea of Tract is that there is an implicit harmony in the combined five-line polyphony of pitches, but that the harmony is not necessarily “there,” and that at any moment in the composition any number of those pitches (including all of them) could be dissonant to the implied harmony. In the technique of Tract those dissonances are always unresolved suspensions; that is, they point to a consonant resolution, whether or not the implicit harmony has in fact changed by the time of the resolution. Obviously, there are other ways of thinking of this matter of a harmonic aura, for instance dissonance for its own sake, as part of the aura, but Tract is simply a score for five voices in counterpoint.

I am deeply indebted to Thomas Buckner for encouraging me to see this idea through, even though it is so different from my current musical concerns. I had considered it, along with other pieces from that time, as “the one that got away,” and I remembered it with a kind of unresolved sadness. Hours of discussions between us, helped by Tom’s love of jazz and knowledge about how these ideas might be related to jazz (although Tract is not a jazz composition), persuaded me to try a realization with the help of electronic technology. Even then, though, the obstacles were formidable. What an instrumentalist can do with a sophisticated change of embouchure to identify the harmonic neighborhood of a specific pitch has to be discovered and spelled out for the synthesizer. Ingredients have to be added to the tone. After we had begun the piece, with the pitches programmed into the computer, I started looking forward with dread to another forty years of trying to make the thing work. Finally, I decided to surrender to the circumstances and simply add the implied harmony (the “aura”) to the mix. I think this decision has not destroyed the piece. It is something of a setback for the theory, but then the piece wasn’t written to prove a theory. It was written because that’s the way I heard things then.

Superior Seven and Tract were performed at the same concert in New York City in 1992 as part of the Interpretations series, produced each year by Thomas Buckner. Tom suggested that the concert be called “Works Without Text,” in order to allay fears, I think, that I could not write music unless the music was attached to a text, such was the state of my reputation at the time (and maybe still is.)

What I could not say in the program notes about these two instrumental works then, because I was committed to what the concert was about and determined to live up to my obligations, is that in fact,—and Tom knew this, of course—they are both based on words. The pitches of Superior Seven are an encoded version of a text, written with that name as a title, and all of the decisions of orchestration are made on the basis of grammatical and syntactical aspects of that text.

Tract originally had words for the vocal part. They were excerpts from poems by Wallace Stevens. But in the changes my thinking had gone through since the piece was composed, I had become unhappy with the notion of “excerpts,” and unhappy with the quality of “collage” that the assembly of excerpts gave to the work. So somewhere in the long road from then to now, Tract had become
an instrumental work in my imagination.

Superior Seven is, of course, fiercely instrumental in spite of its origins, and Tract, even with the voice as one of its orchestral timbres, is a piece for orchestra. I am finally able to say that I write for orchestra—even if I have to make the orchestra myself.

—Robert Ashley

ROBERT ASHLEY was born in Ann Arbor, Michigan, in 1930, and was educated at the University of Michigan and the Manhattan School of Music. At the University of Michigan he worked at the Speech Research Laboratories (psycho-acoustics and cultural speech patterns), and was employed as a research assistant in acoustics at the Architectural Research Laboratory. During the 1960s, he organized the ONCE Festival, an annual festival of contemporary performing arts in Ann Arbor that from 1961 to 1969 presented most of the decade’s pioneers in the performing arts. He also directed the ONCE Group, a music-theater ensemble that toured the United States from 1964 to 1969. During those years Ashley developed and produced the first of his mixed-media operas, notably That Morning Thing and In Memoriam...Kit Carson, and he composed the soundtracks for films by George Manupelli. In 1969, Ashley was appointed Director of the Center for Contemporary Music at Mills College in Oakland, California, where he organized the first public access music and media facility. From 1966 to 1976 he toured the United States and Europe with the Sonic Arts Union, the composers’ collective that included David Behrman, Alvin Lucier, and Gordon Mumma. Staged versions of the operas Perfect Lives, Atalanta (Acts of God), and the tetralogy Now Eleanor’s Idea have toured throughout Europe, Asia, and the United States. Ashley and his company have been presented at the Avignon Festival, the Festival d’Automne à Paris, Musica Strasbourg, the Almeida Festival, New Music America, the Inventionen Festival, and the Hebbel Theater; and by the Gaudeamus Foundation, the USIS Interlink Festival, the Next Wave Festival, and Site Santa Fe. Ashley has provided music for the dance companies of Trisha Brown, Merce Cunningham, Douglas Dunn, and Steve Paxton. He has recorded for Lovely Music, Nonesuch/Elektra, Mainstream, CBS Odyssey, O.O. Discs, Koch International, and Einstein Records.

Thomas Buckner has won a special niche as a performer and producer of avant-garde music. A baritone with a wide range of experience in a variety of genres, he is best known for his work with contemporary composers and improvisers. In association with Robert Ashley, he has performed as a lead singer in the opera Atalanta (Acts of God), which toured throughout Europe and the United States. He currently (1995) tours with eL/Aficionado (which was written for him by Ashley), Improvement, Foreign Experiences, and Now Eleanor’s Idea. Mr. Buckner has worked regularly with the composer Roscoe Mitchell, first in the trio Space, and with the Roscoe Mitchell New Chamber Ensemble. He appeared singing his own compositions at the Asian Contemporary Music Festival in South Korea, and at the “Other Minds” Festival in San Francisco. Buckner’s two recent solo CDs on Lovely Music, Full Spectrum Voice and Sign of the Times, both feature works commissioned especially for him. His performances have also been recorded on 1750 Arch, Musical Heritage, Black Saint, Nonesuch/Elektra, and Mode. Performances include Mahler’s Songs of a Wayfarer with the Philippine Philharmonic Orchestra and the world premiere of Francisco Feliciano’s opera Ashen Wings in Manila. He is a member of the improvising quartet Act of Finding. In Berkeley, California, where he resided from 1967–83, Buckner founded 1750 Arch Concerts, which presented more than 100 events a year for eight years, and 1750 Arch Records, which released over 50 record albums. He was vocal soloist and co-director of the 23-piece Arch Ensemble, which performed and recorded the
work of twentieth-century masters and has premiered many works by American composers. Since 1989, he has curated the World Music Institute's Interpretations series in New York.

**Tom Hamilton** has maintained careers simultaneously in audio design and music. He tours with the Robert Ashley ensemble, and has mixed CDs of the Ashley operas *Improvement* and *el./Aficionado*, as well as recordings for David Behrman, Alvin Lucier, Phill Niblock, and "Blue" Gene Tyranny. As a composer/performer of electronic music, Hamilton regularly appears in New York, and has played at new music festivals in Holland and Newfoundland. He performs with Thomas Buckner in the improvisational group *Act of Finding*.

**Barbara Held** is a flutist and composer based in New York City and Barcelona. Her performances range from collaborations with choreographer Nancy Zendora, visual artists Francesca Llopis and Eugenia Balcells, composers Yasunao Tone, Jin Hi Kim, Nils Vigeland, Brenda Hutchinson, and Alvin Lucier, to the Spanish premiere of Joaquin Rodrigo's *Concierto Pastorale* with the Spanish National Orchestra in Madrid. She has recorded for various American and European radio stations, and recorded a CD of new music for solo flute for Lovely Music, Ltd. Recent projects include a performance of Yasunao Tone's complete works for flute at last year's Biennale di Venezia Fluxus show, a recital at the Varadero Electronic Music Festival in Cuba, and a concert/installation at the Miro Foundation in Barcelona.

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*She Was a Visitor*. Brandeis University Chamber Chorus; Alvin Lucier, conductor. Odyssey 3216-0156.

**Superior Seven**

**concerto for flute and orchestra (for Barbara Held)**
The MIDI sequencer programming was done by Tom Hamilton and Barbara Held.
Synthesizer orchestra voices were designed by Robert Ashley and Tom Hamilton.
The CD realization of *Superior Seven* was processed and mixed by Tom Hamilton.

**Tract**

**for orchestra and voice**
The recording engineer for Thomas Buckner's voice was Tom Hamilton.
The MIDI sequencer programming was done by Nathaniel Reichmann and Robert Ashley.

Synthesizer orchestra voices were designed by Robert Ashley, Tom Hamilton, and Nathaniel Reichmann.
The CD realization of *Tract* was processed and mixed by Tom Hamilton.

*Superior Seven* and *Tract* were produced by Robert Ashley.

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Programming, processing, and mixing were done at 10 Beach Street using:
Macintosh™ computers (Macintosh II™ and Macintosh IIci™);
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Performer 4.2 and Performer 5.02 Sequencer Software™;
Logic Audio 2.0 Sequencer Software™;
Georg Neumann U87Ai Condenser Microphone™;
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Fostex 4030/4035 Synchronizer/Controller™;
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ROBERT ASHLEY (b. 1930) 80460-2
1. Superior Seven (30:17)  
concerto for flute and orchestra  
(for Barbara Held)

Computer programming: Tom Hamilton and Barbara Held.  
Synthesizer voices designed by Robert Ashley and Tom Hamilton.  
Processed and mixed by Tom Hamilton.

2. Tract (23:49)  
for orchestra and voice

Baritone voice: Thomas Buckner.  
Computer programming: Nathanial Reichmann and Robert Ashley.  
Synthesizer voices designed by Robert Ashley, Tom Hamilton, and Nathanial Reichmann.  
Processed and mixed by Tom Hamilton.

Produced by Robert Ashley.

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