The Three Indigenous Songs are a rather remarkable acoustical/musical experiment, in which Tenney attempts to "simulate" the human voice through natural instrument sounds. It is a wonderful comment on the nature of technology, artistic experiment, and the current zeal for complex electronic sound generation, but also on the nature and meaning of approximation.

It is scored for two piccolos, flute, bassoon or tuba, and two percussionists (3 wood blocks, two suspended cymbals, and three tom-toms played with either stick or wire The songs are "settings" of three characteristically American texts/musics: No More Good Water (a slow blues with harmonica accompaniment recorded by Jaybird Coleman of Alabama in the late twenties), Walt Whitman's Kosmos, and Hey When I Sing These Four Songs Hey Look What Happens (the same as in the earlier setting from Jerome Rothenberg's translation of an Iroquois chant). In each song, Tenney attempts to "synthesize" the sounds of the human voice by using the instruments to simulate the various formants and noise transients of the different speech sounds. They are transcriptions in the strictest sense, and there is a wonderfully disarming lack of "compositional" technique other than the audacious decision to actually do it. In the first, flutes are used to imitate the antiphonal harmonica interludes that Coleman plays between sung lines. In the second, Tenney recorded himself reading the Whitman poem and presumably used both his own speech rhythms and the timbral idiosyncracies of his own pronunciation for the transcrip-In the third, the rhythm of the earlier SATB setting is used, with instrumental interludes added between each line, corresponding to the soprano "interludes" in the original.

In a way this piece resembles some of the work of Alvin Lucier in its strict adherence to a very simple scientific principle, but of course the particulars of the realization The instruments are presumably chosen are pure Tenney. because of the relatively simple spectra (very little harmonic content) so that each instrument may sound a particular formant region. Tenney's research into the acoustics of instrument tones is far-reaching, and though it most directly relates to Three Indigenous Songs, the effects are felt throughout his music. It can be seen musically in the attention to orchestral detail previously noted in Seeds, Chorales, Clang, and so many other works. In his theoretical works it is also prevalent (e.g., his computer-timbral research, or his analysis of Helmholtz's harmonic theory in "A Natural History of Consonance and Dissonance"). What occurs is not so much an accurate imitation of the voice, but a composition that is solely determined by the

microstructure of speech acoustics. The lines are quite intricate, but are completely analysable in terms of the shifting formants. The percussion is used to imitate various consonants, especially the fricatives and plosives, and the text is written out in the International Phonetic Alphabet in the score. I refrain from printing any examples from the work because of its iminent publication in another issue of Soundings Press.

Tenney's relationship to "indigenous" materials is a complex one, and he has stated it rather provocatively in

Gayle Young's interview:

"GY: Do you think your style has been influenced by American folk music?

JT: No, not an influence so much as a conscious use, a conscious connecting up with, but not an influence in the sense of absorbing aspects of style, aesthetic, or intention, so that, after absorbing it, one's own music comes out determined by those characterisics."

The distinction between "use" and "influence" is important. Tenney is not interested in creating what Henry Cowell called "hybrid" music. The occurrence of traditional elements, as well as materials from other composers (Ives, Varèse, Satie, etc.) are almost always a kind of integrated juxtaposition of a "found" content with Tenney's own elaborate formal systems. He has never appropriated what might be called the style of another music, rather he has used familiar musical referents as "seeds" to his own compostional imagination.

What Tenney is after in these songs, aside from the musical/cultural interest (note that there is one black, one white, one Native American song), is the creation of a perceptual domain which we can be in some sense part of and in another sense relieved of the scientific nature of the musical experiment. We can simply enjoy the very interesting exploration of the question "what if...?". I don't think Tenney is particularly interested in the piece succeeding as voice synthesis, there are simpler ways to go about that, but rather as a kind of sound gestalt which comes from the scientific and artistic at the same time, a theme that has been present in much of his work. To Tenney, as shown by this piece, the artistic experience is both intellectual and emotional, and he is interested in blurring the boundaries in such ingenious ways that we might perhaps cease to simplify those distinctions with such ease. The voice, with its manifold acoustic complexities, is to him as beautiful as the Whitman poem and Iroquois song, and in such a piece he can express that embracing appreciation.