

Lac Monte Young

The Well-Tuned Piano

81 X 25

6:17:50 - 11:18:59 PM NYC

Lac Monte Young

The Well-Tuned Piano

81 X 25

6:17:50 - 11:18:59 PM NYC

The Well-Tuned Piano

is dedicated
to Marian

and this performance
81 X 25 (6:17:50 - 11:18:59 PM NYC)

is dedicated
to our guru
Indian Master Vocalist
Pandit Pran Nath

— may the Light always shine
where he sings

Playback Suggestions

The Well-Tuned Piano covers an exceptionally wide dynamic range; some sections are extremely loud and other sections are extremely soft. In order for the soft sections to be loud enough to hear the inner resonances of the piano, it is appropriate to set your volume control so that the loudest sections actually fill the listening space with sound and are as loud as you can comfortably enjoy them. The first few times that you listen to the work, you will find an optimum setting for your volume control which you may eventually want to mark in order to avoid adjusting the volume control as you listen.

About the Recording Process

This five-hour continuous performance was recorded live in concert, utilizing techniques that I have developed over many years of performances. Six Neumann and six AKG condenser microphones were positioned very close to the piano at specific locations. This method produces a recording of the music that sounds very much the way I hear it when I play it, and also avoids mixing the resonances of the concert hall with the resonances of the playback space, thereby providing exceptional acoustical clarity.

All live concerts of *The Well-Tuned Piano* are presented without the use of any amplification in order that the sound can be heard in its purest possible form. The music is presented on this recording just the way it was performed, without reverb or other sound "enhancements," and without editing in any musical material from other concerts or sessions. The steam heating system in the performance space was noisy, however, and we did edit out some of the steam pipe clangs, and one particularly inappropriate cough. There were some steam pipe noises and coughs that could not be removed and these can still be heard. Where possible, we attempted to filter out the sounds of occasional passing trucks, which are now almost unnoticeable.

Since much of my music involves improvisation, recording has become the primary means for the documentation of my work. For me, one good live concert recording is worth a thousand studio recordings!

The composite energy resonance with the audience transports me to a dimension that brings forth my highest level of spontaneous musical inspiration.

The Muse appears!

The tones of *The Well-Tuned Piano* suspend in the air —
illuminated before me
as if emanating from the Universal Source of the Eternal Sound —

OM

— La Monte Young

GRAMAVISION

Gramavision Records, 260 West Broadway, New York, NY 10013.

What is *The Well-Tuned Piano*?

The Well-Tuned Piano, a five-hour long solo performed and composed by La Monte Young, is a celebration of musical resonance. The acoustical materials from which audible sound is made and the multitude of traditional patterns for organizing those materials are here conjoined in a manner that suggests that the "father of minimalism," La Monte Young, has a maximal outlook on musical style. *The Well-Tuned Piano* of La Monte Young is at once a re-invented instrument of tremendous power and brilliance, a composition of inspired elegance, and a performance style of striking originality that pays full homage to the entire world of musical heritage while achieving a new world of individual imagination.

The work is played upon a specially retuned and rebuilt Bösendorfer Imperial Grand piano, a nine-foot, six-inch extended range instrument that possesses the rich tonal quality and sensitive action required by the composer. The entire action and wiring was reconstructed for *The Well-Tuned Piano* by the Bösendorfer technicians in Vienna under the supervision of the composer. Likewise, La Monte Young designed the special tuning for the work and continues to supervise the maintenance of the instrument's tuning by his assistants and apprentices.

The tuning of *The Well-Tuned Piano* is an example of "just intonation" where the actual fundamental frequencies of the instrument are tuned in small whole number ratios with the pitches coinciding with the harmonic content of the strings themselves. These ratios are the same as, or idealized approximations of, those frequency ratios found between the individual partials of complex musical sounds in natural systems, including stretched strings, straight enclosed air columns, and the human voice. Just intonation is the tuning of ancient practice that nature commends for both simplicity of means and wealth of possibility. In *The Well-Tuned Piano*, the total effect of the tuning and the improvised articulation of pre-composed themes, patterns and harmonic "clouds" is to blur all of the expected kinds of melodic, harmonic and timbral experience into a new conception of musical order and fantasy. But not entirely new! The resulting performance is resonant also with a sense of the world of historic and living musical performance practices, including Eastern and Western sacred chant, Hindustani classical music, Afro-American classical music, and the American experimental tradition that includes Charles Ives, Harry Partch, Lou Harrison, John Cage, and now certainly, La Monte Young.

This landmark recording captures only a single performance of *The Well-Tuned Piano*, a work whose improvisational character so resists the concrete recording process. Too, the enclosed photographs convey only the barest sense of the serene activity of Marian Zazeela's *The Magenta Lights*, a sculptural light environment of mobile calligraphic flourishes casting colored shadows about the performance space designed to accompany *The Well-Tuned Piano*. But still, the recording emerges as a miracle of continuous sonic allure that manages to capture the joy, melancholy, strength and spirit of an American original. La Monte Young has made a musical masterwork of the highest order.

— Daniel Wolf

Notes on The Well-Tuned Piano

La Monte Young

In 1964 I tuned the intervals for *The Well-Tuned Piano* at my studio in New York City. I was beginning to understand the musical implications of the overtone series more specifically as a set of rational numbers and that there were ways of getting around in the series by ear. The tuning for *The Well-Tuned Piano* is set in the system known as just intonation. In just intonation, the idealized¹ relationship between every pair of frequencies may be represented as the numerator and denominator of some rational fraction. All the pitches of my tuning are derived from various partials of the overtone series of an inferred low fundamental Eb reference ten octaves below the low Eb₀ on the Bösendorfer Imperial. Throughout this text, the system we are using to designate the octave placement of notes on the piano begins with C₀ (the lowest note on the Bösendorfer Imperial) and specifies the lowest octave as C₀ through B₀, the octave higher as C₁ (the lowest C on the standard piano) through B₁, and so forth, establishing middle C as C₄, A-440 as A₄, and the highest C on the piano as C₈.

Theory and Acoustical Background

In order to have a concept of the measurement of time it is necessary to have a concept of periodicity. If we assume that the measurement of time is dependent on periodicity, then we might also assume that in determining the relationship between two or more frequencies the human mechanism can best analyze information of a periodic nature which, in the case of information transmitted by the auditory neurological network, would include only those sets of intervallic relationships satisfying the condition that every pair of frequency components can be represented by some rational fraction, inasmuch as only combinations of these harmonically related frequencies generate periodic composite sound waveforms.

One of the interesting characteristics of the system of rational numbers is that it is potentially a system for categorizing the relationship between sound and the kind of sensation or "feeling" one has each time a performance in the same musical mode is heard. By "feeling" I do not mean states such as happy, sad, amorous or angry, but rather, the set of periodic patterns that is established in

1. Idealized, inasmuch as in this case the intervals for *The Well-Tuned Piano* must actually be tuned within the limitations imposed by the inharmonicities inherent to stringed instruments.

our nervous system and in our system for analysis, which is the representation of the air pressure patterns that couple with the ear, that is, those patterns of vibrations which are the same or similar each time we hear a work in the same mode.

In the tradition of modal music, a fixed tonic is continued as a drone or is frequently repeated, and a limited set of frequencies with intervallic relationships established in reference to the tonic is repeated in various melodic permutations throughout a performance in a particular mode. Generally a specific mood or psychological state is attributed to each of the modes. The place theory of pitch identification postulates that each time the same frequency is repeated, it is received at the same fixed place on the basilar membrane and transmitted to the same fixed region in the cerebral cortex, presumably by the same fiber or neuron of the auditory nerve. The volley theory of pitch perception assumes that a sequence of electro-chemical impulses is sent travelling along specified neurons of the auditory nerve. For single sine wave frequencies up to about 2000 Hz, these impulses produce a more or less complete reproduction of the vibratory motion of the basilar membrane. A more or less distorted reproduction of the complete waveform occurs for more complex signals. It is presumed that this reproduction will be best for sounds at lower frequencies and less good for higher frequencies, since an individual neuron cannot fire faster than 300 Hz. At lower frequencies, a group of neurons working together would be able to supply several pulses per cycle, whereas at higher frequencies they could only supply one pulse every several cycles.²

Periodic composite waveforms generate an envelope composed of a complex of associated combination frequencies including first and succeeding orders of sum ($f_2 + f_1$) and difference ($f_2 - f_1$) tones, as well as more recently discovered combination tones such as $2f_1 - f_2$ and $3f_1 - 2f_2$ ³ and, for the frequency range below about 1500 Hz, the so-called "missing fundamental" tone.⁴ The "missing fundamental" tone occurs at the same frequency as the difference tone. Roederer has pointed out that this "fundamental frequency" is actually

2. La Monte Young, "Notes on the Continuous Periodic Composite Sound Wave Form Environment Realizations of *Map of 49's Dream The Two Systems of Eleven Sets of Galactic Intervals Ornamental Lightyears Tracery*," in La Monte Young and Marian Zazeela, *Selected Writings*. (Munich: Heiner Friedrich, 1969). (Chap.2)

3. Reinier Plomp, "Detectability threshold for combination tones," *Journal of the Acoustical Society of America* 37 (1965): 1110.

4. Juan G. Roederer, *Introduction to the Physics and Psychophysics of Music*. (New York: Springer-Verlag, 1979) pp. 40-44.

the repetition rate of complete periods of the vibration pattern (composite waveform) of sets of harmonically related tones and that our auditory system turns out to be sensitive to these repetition rates. But it has been demonstrated that the "missing fundamental," or "periodicity pitch"⁵ as it is also called, is not present in the cochlear fluid oscillations, whereas combination tones are, and therefore it is not a combination tone.^{6,7} It is assumed that the "missing fundamental" must be the result of neural processing at a higher level. As long as each generating tone has a relationship to every other generating tone such that their frequency components may be represented as the numerator and denominator of some rational fraction, the frequency components of all of the combination tones and "missing fundamentals" they generate will also have this harmonic rational relationship to the generating frequencies and to each other, and as a result will produce an envelope with a periodic composite waveform that contains even more periodic information.

Thus, although a set of higher harmonically related frequencies might be handled primarily according to the principles of place theory, components of the associated combination tone/ "periodicity pitch" envelope could fall within the range that would designate their frequency transmission according to the more or less on/off neural pulses of volley theory. This would explain why we can often sense pulses slow enough to feel as vibrations even when we are hearing a set of higher, rationally related tones.

And, in the same way that difference tones and fundamental tones fill in the bass for loudspeakers which, because of design limitations, are unable to produce such low frequencies, one can easily imagine how these lower combination tones and "periodicity pitches" might fill in the original higher generating frequencies through succeeding generations of sum tones and other additive combination tones at a later stage of the internal processing network, thus providing the cerebral cortex

5. *Ibid.*, pp. 50-60.

6. A. M. Small, "Periodicity Pitch," in J. V. Tobias, ed., *Foundations of Modern Auditory Theory*. (New York: Academic Press, 1970)

7. A. J. M. Houtsma and J. L. Goldstein, "Perception of musical intervals: Evidence for the central origin of the pitch of complex tones," *Journal of the Acoustical Society of America* 51 (1972): 520.

with a more complete set of vibrational information. Certainly if $f_3 - f_2$ can produce f_4 as a difference tone at the cochlear mechanism stage, and again as a "missing fundamental" at a higher neural processing stage, then, theoretically, $f_1 + f_2$ could again produce f_3 at perhaps a later processing stage, since $C - B = A$ could, under the proper conditions, be converted back into $A + B = C$.

Current psychoacoustical research and the assumptions of place theory and volley theory suggest that when a specific set of harmonically related frequencies is continuous or repeated, as is often the case in my music, it could more definitively produce (or simulate) a psychological state since the set of harmonically related frequencies will continuously trigger a specific set of the auditory neurons which, in turn, will continuously perform the same operation of transmitting a periodic pattern of impulses to the corresponding set of fixed locations in the cerebral cortex.

Actually, then, it seems to me that each harmonically related interval creates its own unique feeling. Only certain of these feelings have been used in music as it has come down to us, however. In the system of Western European classical music, for instance, all of the intervals implied may be represented by fractions having numerators and denominators factorable by the prime numbers 2, 3, or 5, if they are presented or analyzed in just intonation rather than in equal temperament. The intervals and proportions represented by the system of rational numbers have always been in existence, but by allowing intervals which may be represented by fractions with numerators and denominators factorable by primes higher than 2, 3, or 5, and by using progressions and modulations to higher multiples of these factors, we have the opportunity to expand the range of our aural and mental "bypass filter" to include more distant regions of the harmonic series and their correlated feelings. Any system of language is dependent on the fact that information is repeatable, and this is precisely what the system of just intonation provides. Through this system we can, first, catalogue each feeling with its corresponding rational number, and then actually create, store, retrieve and, finally and most importantly, repeat the feeling, relative to the musician's ability to tune the intervals.

It should be observed here that since the intervals in

equal temperament can only be represented by infinitely non-repeating decimals ($\sqrt[12]{\frac{2}{1}} = \frac{1.059463...}{1}$) they will produce infinitely non-repeating composite waveforms; therefore, the chances of hearing the part of the waveform that was heard the time before are very small. The only exception is the special case in which we re-initiate the identical interval with the identical initial phase relationship (e.g. by recording and playing back a tape of the same interval). And although equal tempered intervals can be approximated with digital counters using ratios, such as $\frac{89}{84}$, $\frac{196}{185}$, $\frac{1461}{1379}$, $\frac{1657}{1564}$, $\frac{3119}{2943}$, etc. for $\sqrt[12]{\frac{2}{1}}$, neither the best traditional musicians nor all the electronic equipment of modern science can tune an equal tempered interval *exactly*. In fact it is not even possible for humans to know if an equal tempered interval is exactly in tune, since it would take an infinity to measure its infinitely non-repeating waveform. Therefore, there is no reason to assume we have ever heard the exact same interval twice in equal temperament, let alone the same part of its infinitely non-repeating composite waveform. And although a rational interval can also have an infinity of phase relationships, each one of these phase relationships will produce a periodic composite waveform which, after a reasonable number of samplings, can be presumed to be exact.

Of course, ratios factorable by lower primes and/or with smaller numerators and denominators (or "simple ratios") will produce periodic composite waveforms that repeat in a shorter time period than "non-simple" (or "complex ratios"). As a result, when we use electronic measurement techniques, more simple ratios can be analyzed and confirmed faster than more complex ratios, and we might therefore assume that the human mechanism could also better and more quickly analyze and comprehend simpler ratios. Conversely, imagine an interval represented by a rational frequency ratio in which the numerator and denominator were so large that one complete statement (period) of the composite waveform would last longer than a human lifetime. Obviously, one could not hope to understand or analyze an interval of such slow periodicity that it could not be heard in its entirety, let alone demonstrate sufficient repetitions of its composite waveform to be reasonably sampled.

Apparently then, we are dealing here with a threshold that balances the fact that an interval may be represented by a rational number with the lengths of its numerator and denominator respectively, as qualified by

the numerical values of their factors. While traditional musics of East and West have demonstrated that vast repertoires can be built upon the system limited to factors of 2, 3, and 5 (even 12-pitch equal temperament has its roots in this system), it is becoming increasingly clear that it is also possible to systematically develop the awareness and understanding of more complex whole number ratios.

For almost 250 years the system of equal temperament has played an increasingly important historical role, eventually providing the very foundation for the highly evolved repertoire of Western classical music. But in order to recapture the range and depth of feelings associated with the modes of such ancient classical systems as the musics of Greece, Persia, the Indian subcontinent, and the Far East, and then to move on to new yet unexplored realms of feeling, the system of rational numbers offers an infinite universe of eventual possibilities. Since intervals from the system of rational numbers are the only intervals that can be repeatedly tuned *exactly*, they are the only intervals that have the potential to sound *exactly* the same on repeated hearing. It is for this reason that the feelings produced by rational intervals within a gradually expanding threshold of complexity have the potential to be recognized and remembered and, consequently, develop strong emotional impact. The inherent precision of the measurability and repeatability of intervals within the practical complexity threshold of the set of rational numbers provides the elements for a language/communications system with an ever increasing range of nuance and refinement of vocabulary.⁸

My unpublished theory work, *The Two Systems of Eleven Categories 1:07:40 AM 3 X 67 - ca. 6:00 PM 7 VII 75 from "Vertical Hearing or Hearing In The Present Tense,"* applies to sets of concurrent generating frequencies which may be represented as integral multiples of a common fundamental, and outlines a means for achieving graduated degrees of control over which frequencies will be *excluded from* a complex of such concurrent generating frequencies and their associated combination frequencies. The mathematician Christer Hennix, formerly with the MIT Artificial Intelligence Laboratory,

8. For a psycholinguistic discussion of emotional response to music in relation to the development of language competence, cf., Roederer, *Introduction to the Physics...*, pp. 11-12.

wrote in an introduction to his 1969 paper on *The Two Systems of Eleven Categories*:

The Two Systems of Eleven Categories gives an algorithmically generated pattern, i.e., in establishing a finite collection of frequencies and a finite set of recursive formation rules this work represents the first attempt in music to outline a structure with a potentially infinite set of form-ordering elements that are all well-defined constituents. These rules combine the elements in a way very similar to the formal sentence formations that take place in grammars of Chomsky's type. In this context, it seems natural to assume that the listener's language "competence" is an integral psycho-linguistic/psychoacoustic feature of his comprehension of the music, and that this might account for its archetypal character.⁹ (Cf. Article "La Monte Young," in *Dutton Dictionary of Contemporary Music*, 1974, p. 830).

Further, in Hennix' most recent work (1985, unpublished) on the specificity of *The Two Systems of Eleven Categories*, he employs infinitary languages in formalizing the features of System A (*The Two Systems of Eleven Categories* outlines two systems, A and B):

The axioms chosen for System A express a *reduction* of an arbitrarily complex set of concurrent frequencies to a set of frequencies with a relatively simple structure in terms of the expressive power of infinitary languages. By means of this *formal reduction principle* a system of tuning of frequencies is determined in which an analogue between the concept of tuning and the concept of formal proofs becomes visible. In particular, the relationships between concepts of time, tuning and proof may now be satisfactorily investigated.¹⁰

And while psychoacousticians continue to study and postulate how we actually process and analyze pitch information, the ear seems to have the ability to perceive sound vibration as such and transmit it through the auditory nervous system, including the brain, as information distributed in time. Accepting this premise, we might then think of periodic composite waveforms, and the justly tuned scales, chords and intervals from which they are derived, as classifiable principal vibrational structures which can be experienced in real time primarily through

9. Christer Hennix, "An outline for an analogue model of 'Vertical Hearing or Hearing in the Present Tense' by La Monte Young."

10. Hennix, "An Axiomatization of Some Minimal Admissible Sets of Concurrent Frequencies Determined by La Monte Young's 'Two Systems of Eleven Categories Revised from Vertical Hearing or Hearing in The Present Tense 1967.'"

the medium of sound. As such, periodic sound waveforms may be singularly perceptible models of the fundamental principles of vibrational structure. The sensations of ineffable truths that we sometimes experience when we hear progressions of chords and intervals tuned in just intonation, may indeed be our underlying, subliminal recognition of the broader, more universal implications of these fundamental principles.

The psychoacoustician John Molino, formerly of Columbia University and Wyle Laboratories, stated (1987, verbal communication):

For me, La Monte Young's music provides a unique experiential link to a primordial evolutionary basis for human sensations and perceptions. La Monte has pioneered the exploitation of neural physiological phenomena, such as the "missing fundamental," to create and musically explore novel hearing sensations. One is reminded of the early impressionist painters, who carefully studied the prevalent tri-color and opponent-process theories of color vision so as to create and artistically explore induced colors—colors which are not physically present in the visual stimulus, but which are supplied by the human eye, nervous system and brain. These painters opened a vast realm of experimentation with novel visual sensations and perceptions never before experienced with such profusion and purposeful manipulation in the history of visual art. In a like manner, La Monte Young has carefully studied the current psychoacoustic place and volley theories of hearing, after having created and musically explored "missing fundamental" tones—tones which are not physically present in the auditory stimulus, but which are supplied by the human ear, nervous system and brain. These induced auditory experiences are in turn rooted in millions of years of neurophysiological evolution, representing in their own way certain fundamental constants of human biology.

Within the system of just intonation, the tuning of *The Well-Tuned Piano* presents a unique set of intervals and derived feelings, some of which have perhaps never before played so prominent a role in music. These intervals provide the listener with new feelings which may have been intuited since the primeval beginnings but can now be experienced in a direct and profound way for the first time.

Performance History

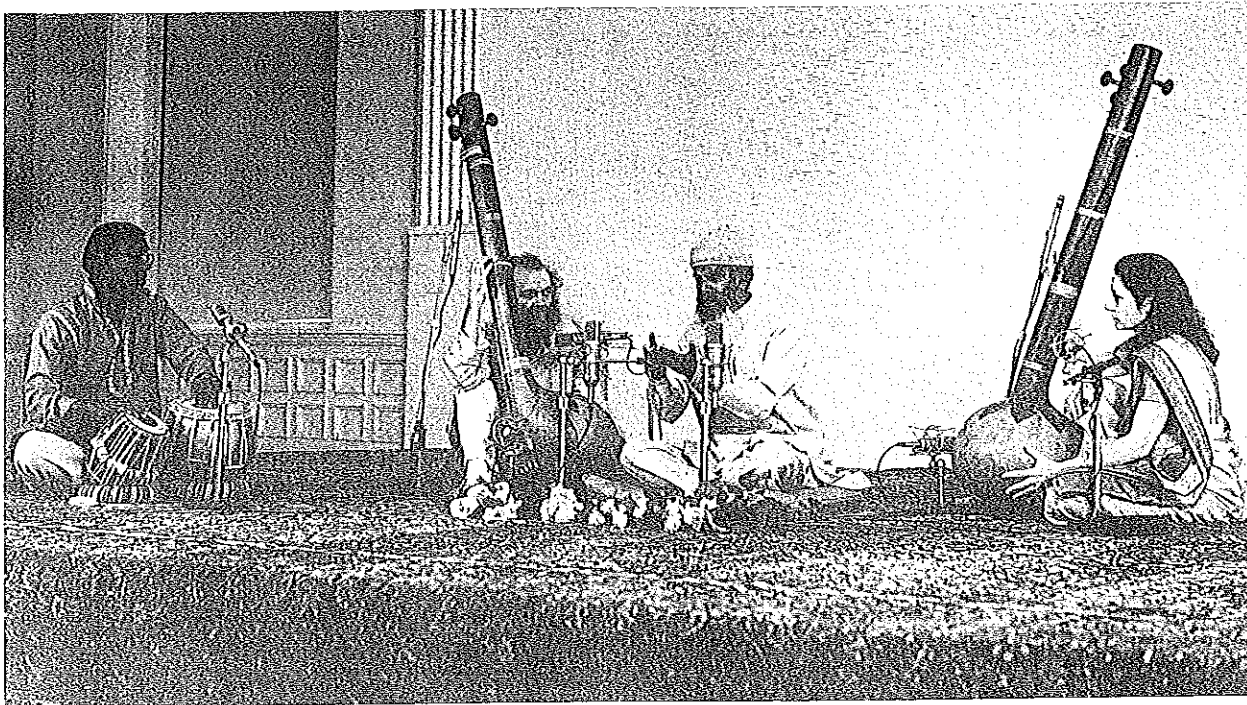
The Well-Tuned Piano had only been performed in public as a tape piece until 1974 when Fabio Sargentini heard the 1964 tape of the work and invited me to present the first live performance in Rome during his East-West

Music Festival at Galleria L'Attico. I had for years assumed that I would never be able to obtain the conditions necessary to play this piece live, as it requires at least a week or two to tune the piano, which must remain exactly where it will be performed, thus rendering the space and the piano practically unusable for other performances during that period. But by that time the *Dream House*, my major installation and performance work since 1969, had developed into such a large-scale production that *The Well-Tuned Piano* project suddenly appeared almost simple by comparison. Therefore, Sargentini's willingness to provide the conditions in his gallery space, as well as a Bösendorfer piano for the performances, convinced me to accept the invitation. Thus began my reinvolvement with the work which has since completely captivated me and has become the source and inspiration for some of my most creative developments.

It is interesting that, until Fabio invited me to perform a few months before the concerts, I had not seriously practiced the piano for many years. Not only had I been deeply involved in rehearsals and presentations of *Dream House*, but since 1970 I had been almost equally immersed in my studies of Indian classical raga singing with Pandit Pran Nath. And, although Pandit Pran Nath taught in the strict traditional way—never offering a comment about how to compose or perform my music—I attribute much of the amazing transformation that took place in *The Well-Tuned Piano* and in my ability to perform it, to the all-encompassing scope of the body of knowledge he represented, and the level on which he was imparting it to me.

The two concerts of the 1974 World Premiere of *The Well-Tuned Piano* in Rome were so well received that Sargentini proposed to preserve the tuning permanently by purchasing the Bösendorfer and having me sign it. He then also commissioned two additional concerts in celebration of the event. *The World Premiere Bösendorfer Parlor Grand*, the first piano signed by me, was then flown to New York for the American premiere at the Dia Art Foundation where I presented eleven live performances of *The Well-Tuned Piano* during the Dream Festival in April and May of 1975.

Tuning is a function of time. Since tuning an interval establishes the relationship of two frequencies in time, the degree of precision is proportional to the duration of the



Pandit Pran Nath, voice, singing *Raga Suha Kannada*, accompanied by K. Paramjyoti, tabla, with La Monte Young and Marian Zazeela, tamburas, 1982. 6 Harrison Street *Dream House*, New York, NY. Photo: John Cliett. Copyright © Pandit Pran Nath 1987.

analysis, i.e. to the duration of tuning. Therefore, it is necessary to sustain or repeat the frequencies for longer periods if higher standards of precision are to be achieved. The fact that this information is not generally known to musicians may be one reason that only a few examples of pitches of long duration such as organum, pedal point, and the drone are to be found in music. On the other hand, astronomers have known for some time that if a measurement or comparison is to be made of two orbits which involve many years of time, the degree of precision of the measurement will be proportional to the duration for which the measurement is made.¹¹

The degree of precision of the tuning of *The Well-Tuned Piano* is very fine and cannot be achieved in just a few days. It is best to perfect the tuning over long periods of time—a minimum of a few weeks. It means that each time the piano is moved the fine nuances of the tuning can be lost. I realized that, were it possible to have a long-term location for the piano with proper temperature and humidity control, it should become possible to develop the tuning to a degree that would surpass anything that had been achieved in any temporary installation. The manner in which I play the piece, and how well, is directly inspired by the nature of the tuning. If the tuning is particularly exquisite, the performance can be comparably exquisite.

Much of my approach to playing the piano essentially grew out of my fingering dexterity with the saxophone, which I had played since the age of seven. I had started working out my harmony exercises and playing blues on my parents' piano in high school, and later had about two years of formal piano studies. In addition, I studied counterpoint under two great pianists, Schoenberg's disciple, Leonard Stein, with whom I also studied composition, and renowned musicologist, Dr. Robert Stevenson, with whom I also studied keyboard harmony. The opportunity to study with these great teachers no doubt refined my sensibility toward the instrument. During the period 1962 to 1964 I had developed the technique of playing extremely fast permutations and combinations of sets of specific tones on the soprano saxophone as a way of creating the impression of a sustained chord, even though the instrument was not designed to sustain chords. These "chords" sometimes covered a very wide range of the instrument, as opposed to the multiphonics technique which usually sustains a few tones over a narrower range. I extended this approach of playing extremely fast combinations and permutations of tones to my performances of *The Well-Tuned Piano* and, with my saxophone dexterity as a base, I gradually invented totally new techniques in order to realize the inspiration of new sections of the work as they evolved.

Since it was possible to have the piano on location for one month prior to the 1975 performance series, I was able to perfect the tuning to rare degrees from time to time over the total two-month period of tuning and concerts. Then, as a result of this careful tuning of my harmonically related intervals and through the application of the special fingering techniques I had developed, a remarkable series of events transpired. As I played some of the longer sections of very fast permutations and combinations of specific sets of pitches, it actually became possible to hear the composite waveform of some of the sets. Extraordinary periodic acoustical beats became suspended in the air like a cloud over the piano, sometimes even filling the entire space during the energy accumulations of the longest passages. It was at this point that I became aware of the development of a phenomenon which to my knowledge no other musician has ever presented. That is, I found that my fingers were synchronizing the rhythms of the hammers with the rhythms of the acoustical beats in such a way that it became a type of resonance system. In this system of resonances, the positive pulses created by the rhythms of the hammers are synchronized to reinforce the positive pulses of the waveform of the frequency of the acoustical beats, which in turn determine the frequency of the rhythm of the hammers. And concomitant with the phenomenon of this system of resonances is the demonstration of a controlled, audible, acoustical synchronization between rhythm and frequency in live performance (without the aid of electronics) for the first time in the history of music.

For the West German premiere of *The Well-Tuned Piano* in 1976, Radio Bremen provided the largest Bösendorfer, the Imperial, for my participation in the Pro Musica Nova Festival. The concerts on the Imperial were so successful that the Dia Art Foundation purchased the piano and had it sent to the Bösendorfer firm in Vienna for custom work under my direction, to make the instrument even more precisely suited to the specifications of *The Well-Tuned Piano*. Upon completion of this work, the piano was brought to New York where in September 1978 I played four concerts in celebration of the creation of the *Dia Custom Bösendorfer Imperial*.

In 1979, the Dia Art Foundation acquired the former Mercantile Exchange building at 6 Harrison Street in lower Manhattan, which served as the permanent location for the *Dia Custom Bösendorfer Imperial* for six

11. Young, op. cit., Chap. 2.

years. In addition to providing me with unlimited access to the instrument as well as long periods of rehearsal, preparation and practice before extended periods of weekly concert performances, this opportunity allowed me to more carefully control and maintain with greater accuracy the conditions necessary to stabilize the tuning and technical capabilities of the instrument. A monitored, thermostatically controlled heating system was installed to maintain more constant temperatures, and humidifiers were used to help stabilize the environment through seasonal changes. This was a major step forward because the degree to which the tuning can be refined is greatly dependent upon the stability of the temperature and humidity surrounding the instrument. During the three most extensive concert periods of Winter '80, Winter '81 and Fall '81, resident tuning technician Michael Harrison refined the tuning several times a week, and Bob Bielecki provided ongoing customization and keyboard regulation, making it possible to continue to perfect the tuning and expand the technical precision of the Bösendorfer Imperial beyond any degree that we had previously achieved. All of the people who were a part of the Harrison Street *Dream House* Project worked closely with me as a team to develop a continuously evolving atmosphere of creativity on the highest level.

As of October 25, 1981 (the date of this recording) I had performed *The Well-Tuned Piano* 55 times. During the extended history of the ten year commission from Dia Art Foundation they sponsored 34 live public concerts, 10 live invitational performances, 32 tape presentations, and 45 recording sessions, a number of which were broadcast in their entirety. The accumulation of all aspects of support by the Foundation provided me with the opportunity to continue to develop, refine and expand my concepts and musical ideas for *The Well-Tuned Piano*, and enabled me to realize these ideas with an exceptional degree of artistic freedom.

This live recording of the 81 X 25 performance was the last in a series of seven concerts. Knowing that this was the last time I would play the piece for some time, this was a very special event for me. I decided before the concert that in every way I would follow the dictates of my muse, no matter how extreme. Although I always play totally according to inspiration, I do in fact, as a rule, keep a small clock at the side of the piano so I can pace myself and thus not spend too long in one section and

then not have enough time and physical stamina to properly unfold the remaining sections of the work. I had often wondered what role the clock played in the duration of my typically 3½ to 4½-hour performances. Was I forcing myself to play a long time because of my interest in extended durations? Therefore, I also determined not to look at the clock for this last performance. To my amazement, when I looked up after playing the last notes of "The Ending," I found I had played just over five hours, my longest concert to date. Further, I had allowed myself to become involved in intricate, subtle variations and reflections on the micro-structure of the work with even less concern for the audience's ability to follow on the first listening (also realizing that some of the listeners had developed a substantial knowledge of the work by then). As a result, in this performance I feel that I have interwoven the thematic material and chordal areas into not just the longest, but the most imaginative and creative realization of *The Well-Tuned Piano* that I have yet played.

La Monte Young playing *Dorian Blues* on Sopranino Saxophone, May, 1963, Allen Kaprow Happening, Yam Festival, George Segal's Farm, New Brunswick, New Jersey. Photo: Peter Moore. Copyright © Peter Moore 1963.



Musical and Thematic Development

It is relevant to note here that the set of twelve frequencies for *The Well-Tuned Piano* which I tuned in 1964 evolved from an identical subset of six frequencies used in *Pre-Tortoise Dream Music* which I had been sustaining on the soprano saxophone with my group, The Theatre of Eternal Music, since earlier that year. Although its roots derive from frequency structures that later evolved into some of my major works such as *The Tortoise, His Dreams and Journeys* performed in *Dream House*, *The Well-Tuned Piano* stands as one of my most important works because it contains musical material which cannot be expressed through any of the other media in which I work. Since I began performing the work live in 1974, it has continued to evolve and expand as the musical and harmonic material has led me to improvise and develop new sections and subsections. The true nature of the performances has been, in fact, continually evolutionary and compositional. Throughout the process of improvising and composing at the piano I have categorized the frequencies of *The Well-Tuned Piano* into various chordal sections to which I eventually gave titles. The frequency structures of all subsections of the work can be thought of as subsets and intersecting sets of three inclusive sets of frequencies: "The Deep in The Rainforest Chord," "The Romantic Chord," and "The Elysian Fields."¹² The sets of frequencies for "The Deep in The Rainforest Chord" and "The Romantic Chord" intersect with one common tone, and the sets of frequencies for "The Romantic Chord" and "The Elysian Fields" intersect with six common tones.

In 1964 the work utilized three main chordal areas: 'The Opening Chord,' 'The Tamiar Dream Chord,' and 'The Early Romantic Chord.' There were also extensions and subsets of these chordal areas: 'The Rodeo Rainforest Chord' which was similar to 'The Opening Chord' but with the bass notes one octave lower, and 'The Coda' which was identical to 'The Early Romantic Chord' but an octave higher. There was also some important transitional material which in an expanded form is still used today in 'The Transition from The Opening Chord to The Magic Chord,' 'The Transition from The Magic Chord

12. Throughout these notes the titles of these three inclusive sets of frequencies and some of their main intersecting sets are enclosed by quotation marks (""), whereas the titles of their subsets are enclosed by apostrophe marks ('').

back to The Opening Chord or to The Magic Opening Chord' and 'The Transition from The Magic Harmonic Rainforest Chord to The Romantic Chord.' 'The Opening Chord' has remained unchanged to this day. 'The Tamiar Dream Chord' has developed into 'The $\frac{189}{98}$ Lost Ancestral Lake Region.' The archetypal cluster for 'The Early Romantic Chord' eventually evolved into "The Romantic Chord."

Although parts of the work remain much as they were in the 1964 version, by changing one note of the tuning in 1973 and as a result of my musical development in the interim, I was able to greatly expand the work with two major new sections: "The Romantic Chord" and 'The Magic Chord.' These new sections along with 'The Opening Chord' expanded into three new chordal areas entitled "The Deep in The Rainforest Chord," 'The Harmonic Opening Chord' and 'The Harmonic Rainforest Chord.' "The Deep in The Rainforest Chord," which was developed in 1978, is the extension of all the pitches from 'The Opening Chord' into all octaves of the keyboard. 'The Harmonic Opening Chord,' which developed in March of 1980, includes those pitches of "The Deep in The Rainforest Chord" that are derived from the harmonic series of the fundamental low Eb₁ on the piano. 'The Harmonic Rainforest Chord,' which was developed in December of 1980 is based on the fundamental one octave lower than that of 'The Harmonic Opening Chord.' (This fundamental, Eb₀, is available only on the Bösendorfer Imperial Piano.) Subsets of "The Romantic Chord" include 'The Magic Chord' and 'The Return of The Magic Chord in The Romantic Section' from 1974, and 'The Theme and Variations on The Magic Chord' from 1975. Other subsets of "The Romantic Chord" include 'The Gamelan Chord' from 1975, 'The Gamelan Theme and Variations' from 1980 and 'The Valentine's Day Chord' from 1980 which serves as a transition to 'The Gamelan Chord.' Many themes developed out of "The Romantic Chord" including 'The Bremen Theme' and 'The Bonn Theme' from 1976, as well as others as yet untitled.

A radical new development in the January-February 1981 concert series was the combination of 'The Opening Chord' with 'The Magic Chord' to create "The Magic Opening Chord." Here, for the first time, I combined and played simultaneously frequencies in the tuning which produced intervals having more distantly related numerators and denominators than I had used

previously. This new combination gave rise to many new subsections including 'The Sunlight Filtering through The Leaves,' which serves as a transition to 'The Pool' and 'The Shimmering Pool Reflecting The $\frac{288}{147}$ Premonition of The Theme of The Dawn of Eternal Time Recalled in The $\frac{189}{98}$ Lost Ancestral Lake Region.' A similar development was the combination of 'The Harmonic Rainforest Chord' with 'The Magic Chord' to create "The Magic Harmonic Rainforest Chord." Subsets of this section include 'The Ethers Churn (The Dinosaurs Dance),' 'Young's Boogie in Eb,' 'Young's Böse Boogie in Eb' (with the bass one octave lower in the special

Bösendorfer Imperial's extended range), and 'We Followed The Brook up into The Foothills.'

The September - October 1981 series was especially significant in that these concerts introduced the world premiere of two new pitches in the tuning of *The Well-Tuned Piano*. With the addition of these two notes, the harmonic palette of *The Well-Tuned Piano* was expanded to include even more distant regions of the harmonic series, fulfilling yet another dimension of the logical symmetry in the overall tuning. A new chordal area, "The Elysian Fields" was inspired by the intro-

La Monte Young playing *The Well-Tuned Piano* in an environment of *The Magenta Lights*, 1978. Dia Art Foundation Dream Festival, 141 Wooster Street, New York, NY. Photo: Marian Zazeela. Copyright © La Monte Young & Marian Zazeela 1987.



duction of these two new pitches. The themes in this new section are "The Elysian Fields," 'Recalling The Theme of The Dawn of Eternal Time in The Elysian Fields,' and 'The Lyre of Orpheus.' This concert series also marked the development of four new themes in "The Magic Harmonic Rainforest Chord." These themes are 'The Goddess of The Caverns under The Pool,' 'The Premonition of The Lyre of Orpheus,' 'The Fountain,' and 'The Interlude of The Wind and The Waves'

Many of the main sections and subsections of *The Well-Tuned Piano* have different tonal centers; consequently, the process of modulation has played an important role in the work since its beginnings in 1964. And even though many scholars have written of the difficulties of modulation with a twelve frequency limit in just intonation, *The Well-Tuned Piano* is a striking example of the possibilities of such modulations in that it is structured to modulate through common tones to several different tonalities. The three main transitions, 'The Transition from The Opening Chord to The Magic Chord,' 'The Transition from The Magic Chord back to The Opening Chord or to The Magic Opening Chord,' and 'The Transition from The Magic Harmonic Rainforest Chord to The Romantic Chord,' are particularly elaborate examples of this process. During this Fall 1981 series, I greatly expanded the last transition with new material including 'The Simple Sequence,' 'The Classical Sequence,' 'The Hommage à Debussy Sequence,' and 'The Modern Sequence.'

The Well-Tuned Piano now contains more musical material than can be presented in one performance. It is hoped that listeners can begin, through repeated hearing of the recording, to acquaint themselves with the major sections and subsections of *The Well-Tuned Piano*.

I consider the Bösendorfer to be the finest piano in the world, its tone a source of inspiration, and the only instrument capable of the precise tuning necessary for *The Well-Tuned Piano*. Although this tuning, of course, is only one of an infinity of tunings possible in just intonation, I have found in the tuning of *The Well-Tuned Piano* a set of frequencies which embody a conceptual essence of such a profound relationship to the archetypal frequency structure for all of my work, that I have chosen to preserve it by keeping *The Well-Tuned Piano* Bösendorfers tuned to these frequencies permanently.

Acknowledgements

I appreciate the invaluable comments, critiques and clarifications by my colleagues who have patiently read and re-read the Theory and Acoustical Background section of my text: Robert Adler, Bob Bielecki, Michael L. Commons, Alex Dea, Michael Harrison, Christer Hennix, Dennis Johnson, Laurie Kottmeyer, Gerry Lindahl, John Molino, Johnny Reinhard and Terry Youk.

Copyright © La Monte Young 1981, 1987.

The Magenta Lights

Marian Zazeela

The Magenta Lights

Marian Zazeela

The 6 Harrison Street *Dream House* Performance Space installation of *The Magenta Lights* was a site-specific environment created for the Trading Floor of the former New York Mercantile Exchange building under a long-term commission from the Dia Art Foundation. The work was on exhibition periodically from 1980 through 1985, and provided the setting for La Monte Young's performances of *The Well-Tuned Piano*.

The Magenta Lights is a realization of that aspect of my work, generically entitled *Light*, which uses the inherent properties of colored light mixtures as a medium for the transfer of information concerning the position and relation of objects in space.

The work *Light* involves the installation of precisely positioned pairs of colored lights focused on symmetrically arrayed pairs of white aluminum mobile sculptures,

causing the projection of colored shadows on the ceiling or walls of a room. Each mobile reflects the color of that portion of the spectrum represented by the light source focused directly on it, while the colors of the shadows cast by each mobile appear as the complement of the projected color mixed with the color of the paired light source focused on the adjacent mobile, all tempered by the eye's adaptation to the overall color field. Light and scale are manipulated in such a way that the colored shadows, in their apparent corporeality, can become virtually indistinguishable from the mobile sculptural forms, enveloping the viewer in the continual interplay of reality and illusion.

The floating sculptures are suspended in different patterns created according to the structural properties of each environment. For this installation of *Light* I constructed a series of diagonals bisecting each of the four outer segments of the 29-foot ceiling of the Performance Space. Light sources were positioned at opposite corners to project the mobiles' shadows across the diagonals

where they combined to create a radiant color field which permeated the entire space with its reflected hues. As the mobiles turn in space, reacting to movement and temperature changes in the environment, their shadows continuously display the resultant forms created by the angles and the distances of the light sources to the mobiles. The overall pattern of shadows gradually shifts through many transformations, including, rarely, the perfectly symmetrical alliance of all the component parts.

Since the earliest presentations of the 1964 tape version of *The Well-Tuned Piano* in concert, La Monte and I had concurred that a particular slide combination from *Ornamental Lightyears Tracery*, composed of colors in the range of magenta and blue only, provided the appropriate environment for *The Well-Tuned Piano*. While each color combination has its own special properties, the colors of *The Magenta Lights* seem to most effectively charge the atmosphere with a perceptible aura of profound sensation. It is as though the soft reflected light of dusk were suspended in time.



La Monte Young playing *The Well-Tuned Piano* in an environment of *The Magenta Lights*, 1981. 6 Harrison Street Dream House, New York, NY. Photo: John Cliett. Copyright © La Monte Young & Marian Zazeela 1987.

"81 X 25 6:17:50 - 11:18:59 PM NYC"

The Well-Tuned Piano

(VI 1964-1973-1981-Present)

Themes, Chordal Areas, and Durations

How to utilize the real time indications for hours, minutes and seconds if you wish to follow the score while listening to the music:

Compact Discs:

To enable the listener to align a stopwatch or real time CD counter at the 00, 01, and 02 hour marks, CDs One, Two and Three each have two tracks. There is no break between the two tracks; the sound will be uninterrupted. Track One contains the seconds that take place just before the zero of the first, second and third hours which begin precisely at the start of Track 2 of each respective disk. If using a real time CD counter this will align automatically for CDs One, Two and Three. If your CD player does not have a real time readout function for the individual tracks it may have a track indicator function. In this case, Start your stopwatch at zero at the instant Track 2 appears.

If using a stopwatch to time the CDs, press Start at the first sound of CD One (Track 2) and the hours, minutes and seconds will delineate where you are in the score. For CD Two, press Start on the stopwatch at 42.3 seconds after the first sound of the disk. For CD Three, press Start on the stopwatch at 35 seconds after the first sound of the disk. CDs Four and Five begin after the hour, therefore a time correction factor must be added to the real time CD player display, and stopwatches must be started before the first sound of each disk by the same time correction factor. For CD Four, add 38 seconds to the real time display, or Start the stopwatch and then start the first sound 38 seconds later. For CD Five, add 84 seconds to the real time display, or Start the stopwatch and then start the first sound 84 seconds later.

LPs and Cassettes:

Note the hour, minute and second indication for the Start of each side in the Score below. For Sides 3, 5, 8 and 10 which start before the hour or half-hour indication, Start the stopwatch at the first sound, let the stopwatch run until even with the hour or half-hour indication and then Re-Start the stopwatch to align the zero. For Sides 2, 4, 6, 7, and 9, Start the stopwatch and then start the first sound the number of seconds later indicated on the Score (Side 2: 10 seconds; Side 4: 02 minutes, 27 seconds; Side 6: 02 minutes, 38 seconds; Side 7: 36 seconds; Side 9: 01 minute, 24 seconds).

Note: The beginnings of the major musical sections of the work appear in bold italics.

Hr:Min:Sec

00:00:00 The Opening Chord

00:00:00 *The Theme of The Dawn of Eternal Time, first part*
00:02:09 *The Theme of The Dawn of Eternal Time, second part*
00:02:46 *The Theme of The Dawn of Eternal Time, first part*
00:03:49 Premonition of Cloud in *The Opening Chord*
00:03:53 *The Theme of The Dawn of Eternal Time, second part*
00:04:29 *The Theme of The Dawn of Eternal Time, first part*
00:04:53 *The Theme of The Dawn of Eternal Time, second part*
00:05:16 *The Theme of The Dawn of Eternal Time, first part*
00:05:18 Premonition of Cloud in *The Opening Chord*
00:05:26 *The Theme of The Dawn of Eternal Time, second part*
00:05:44 Introduction to Cloud in *The Opening Chord*
00:06:02 Cloud in *The Opening Chord*
00:07:52 Premonition of *The Brook*
00:08:17 Introduction to Cloud in *The Opening Chord*
00:08:36 Cloud in *The Opening Chord*
00:09:15 *The Theme of The Dawn of Eternal Time, second part*
00:09:38 The Beginning of *The Transition from The Opening Chord to The Magic Chord*
00:10:12 *The Theme of The Dawn of Eternal Time, second part*
00:10:52 *The Theme of The Dawn of Eternal Time, first part*
00:11:02 *The Transition from The Opening Chord to The Magic Chord*
00:12:46 Return to *The Opening Chord* during *The Transition*
00:13:50 *The Theme of The Dawn of Eternal Time, second part*
00:14:22 Introduction to Cloud in *The Opening Chord*
00:14:32 Cloud in *The Opening Chord*
00:15:04 *The Theme of The Dawn of Eternal Time, first part*
00:15:16 *The Theme of The Dawn of Eternal Time, second part*
00:15:44 *The Transition from The Opening Chord to The Magic Chord*
00:16:14 *The Theme of The Dawn of Eternal Time, second part*
00:16:42 *The Transition from The Opening Chord to The Magic Chord*
00:20:25 Brief arpeggio of part of *The Magic Chord* during *The Transition*
00:21:47 The Magic Chord
00:21:47 Prelude to *The Theme of The Magic Chord*
00:22:26 Introductory Ornamental Motifs in the Prelude to *The Theme of The Magic Chord*
00:23:10 Repeated note Accompaniment
00:23:15 Introduction of Fragments from *The Theme of The Magic Chord...*
00:23:19 becoming unaccompanied and ending with *The Classical Cadence of The Magic Chord*
00:23:38 The last two notes of *The Classical Cadence* accompanied and arpeggiated
00:23:51 Introductory Ornamental Motifs in *The Magic Chord*
00:24:10 Introduction to Cloud in *The Magic Chord*
00:24:31 Bursts
00:24:34 Cloud in *The Magic Chord*
00:24:49 Fragments from *The Theme of The Magic Chord* with two-note Accompaniment
00:25:11 Introduction to Cloud in *The Magic Chord*

00:25:20 Bursts
00:25:32 Cloud in *The Magic Chord*
00:26:33 The last two notes of The Antecedent Phrase of *The Theme of The Magic Chord* followed by The Consequent Phrase without Cadence over two-note Accompaniment
00:26:51 Unaccompanied Ornamental Motifs from *The Rome Introduction*
00:27:34 Unaccompanied continuation of the previous Statement of *The Theme of The Magic Chord...*
00:27:43 ending with the last four notes of *The Cadence of Paradise of The Theme of The Magic Chord* accompanied and...
00:27:56 leading to an accompanimental Introduction to *The Complete Theme*
00:28:02 *The Complete Theme of The Magic Chord: The Antecedent beginning with repeated note Accompaniment...*
00:28:14 The Consequent continuing unaccompanied
00:28:33 *The Cadence of Paradise* arpeggiated
00:28:48 *The Complete Theme of The Magic Chord* unaccompanied
00:29:21 The two penultimate notes of *The Cadence of Paradise* in the Introduction to *The Theme and Variations of The Magic Chord*
00:29:31 Variations on *The Theme of The Magic Chord*
00:30:10 END LP/Cassette Side One
00:30:10 BEGIN LP/Cassette Side Two
00:30:10 Unaccompanied Motifs from *The Theme of The Magic Chord* in Augmentation
00:30:46 Introduction to Cloud in *The Magic Chord*
00:30:58 Cloud in *The Magic Chord*
00:31:46 *The Theme of The Magic Chord* with two-note Accompaniment
00:32:07 Introduction to Cloud in *The Magic Chord*
00:32:17 Cloud in *The Magic Chord*
00:41:03 Last two notes of The Antecedent appearing from Cloud
00:41:15 The Consequent to *The Theme of The Magic Chord* in two-part harmony, ending with *The Cadence of Paradise*
00:41:40 *The Romantic Cadence of The Magic Chord* in two-part harmony
00:42:02 Variations on Motifs from The Theme and Accompaniment of *The Magic Chord*
00:42:18 *The Romantic Cadence* in two-part harmony
00:42:53 Variations on Motifs from The Theme and Accompaniment of *The Magic Chord*
00:43:07 *The Romantic Cadence* in two-part harmony with the lower note anticipating the upper
00:43:20 Variations on *The Theme of The Magic Chord* with Accompaniment ending with *The Classical Cadence*
00:43:58 The Consequent of *The Romantic Cadence* in two-part harmony with the lower note anticipating the upper
00:44:08 *The Romantic Cadence* in two-part harmony with the penultimate note arpeggiated and leading into...

00:44:29	<i>The Subtractive Variations on Motifs from The Theme of The Magic Chord with Accompaniment</i>	01:15:00	<i>Sunlight Filtering through The Leaves</i>	01:43:53	<i>Cloud in The Interlude of The Wind and The Waves</i>
00:45:09	<i>The 1$\frac{3}{8}$ Variation of The Theme of The Magic Chord</i>	01:15:16	<i>Sunshine in The Old Country</i>	01:44:22	<i>The Fountain</i>
00:45:32	<i>The 1$\frac{3}{8}$ Variation of The Theme of The Magic Chord in Augmentation</i>	01:15:34	<i>Cloud in Sunshine in The Old Country</i>	01:45:18	<i>The Theme of The Lyre of Orpheus in The Interlude of The Wind and The Waves</i>
00:46:10	<i>Introduction to Cloud in The Magic Chord</i>	01:16:06	<i>The Fountain</i>	01:46:11	<i>The Homage to Brahms Variation of The Theme of The Dawn of Eternal Time in The Deeper Pool</i>
00:46:35	<i>Cloud in The Magic Chord</i>	01:16:40	<i>Sunshine in The Old Country (cloud continues)</i>	01:48:00	<i>Introductory burst to Young's Boogie in Eb</i>
00:55:39	<i>The Romantic Cadence in two-part harmony</i>	01:17:12	<i>The Fountain</i>	01:48:08	<i>The Homage to Brahms Variation of The Theme of The Dawn of Eternal Time in The Deeper Pool</i>
00:56:07	<i>Restatement of The Romantic Cadence in two-part harmony</i>	01:17:39	<i>Sunshine in The Old Country</i>	01:48:56	<i>Introductory bursts to Young's Boogie in Eb</i>
00:56:32	<i>The last four notes of The Antecedent of The Subtractive Variations followed by The Consequent of The Romantic Cadence in two- and three-part arpeggiated harmony</i>	01:19:20	<i>The Fountain</i>	01:49:02	<i>The Interlude of The Wind and The Waves</i>
00:56:45	<i>The Romantic Cadence</i>	01:20:42	<i>Sunlight Filtering through The Leaves</i>	01:49:20	<i>Cadence from The Homage to Brahms Variations in...</i>
00:57:16	<i>The Romantic Cadence ending with the penultimate note</i>	01:21:34	<i>The Goddess of The Caverns under The Pool in Sunlight Filtering through The Leaves</i>	01:49:25	<i>Young's Boogie in Eb</i>
00:57:42	<i>The Subtractive Variations of The Theme of The Magic Chord unaccompanied</i>	01:21:41	<i>Recalling The Transition from The Magic Chord</i>	01:53:14	<i>The Brook</i>
00:58:03	<i>The Romantic Cadence in two-part harmony</i>	01:21:53	<i>The Shimmering Pool Reflecting The ²⁸⁸/₁₄₇ Premonition of The Theme of The Dawn of Eternal Time Recalled in The ¹⁶⁹/₆₈ Lost Ancestral Lake Region</i>	01:54:22	<i>The Pool</i>
00:58:20	<i>Motifs from The Subtractive Variations and The Romantic Cadence</i>	01:23:54 The Magic Harmonic Rainforest Chord		01:54:29	<i>We Followed The Brook up into The Foothills with Motifs from The Theme of The Lyre of Orpheus</i>
00:58:48	<i>Final Statement of The Romantic Cadence before The Transition</i>	01:23:54	<i>Recalling The Theme of The Dawn of Eternal Time in The Magic Harmonic Rainforest Chord</i>	01:55:48	<i>The Brook</i>
00:59:17 END LP/Cassette Side Two & CD One		01:24:47	<i>The Shimmering Pool Reflecting The ²⁸⁸/₁₄₇ Premonition of The Theme of The Dawn of Eternal Time Recalled in The ¹⁶⁹/₆₈ Lost Ancestral Lake Region</i>	01:56:01	<i>We Followed The Brook up into The Foothills</i>
00:59:17 BEGIN LP/Cassette Side Three & CD Two		01:26:48	<i>Introduction to We Followed The Brook up into The Foothills</i>	01:56:26	<i>The Interlude of The Wind and The Waves</i>
00:59:17	<i>The Antecedent Phrase of The Romantic Cadence leading to...</i>	01:27:10	<i>The Shimmering Pool Reflecting The ²⁸⁸/₁₄₇ Premonition of The Theme of The Dawn of Eternal Time Recalled in The ¹⁶⁹/₆₈ Lost Ancestral Lake Region</i>	01:56:33	<i>The Homage to Brahms Variation of The Theme of The Dawn of Eternal Time in The Deepest Pool (with lowest Eb)</i>
00:59:38	<i>The Transition from The Magic Chord to The Magic Opening Chord</i>	01:27:43	<i>Introduction to We Followed The Brook up into The Foothills</i>	01:58:49	<i>The Homage to Brahms Variation of The Theme of The Dawn of Eternal Time in The Deeper Pool</i>
01:00:21	<i>The Romantic Cadence with Accompaniment</i>	01:28:04	<i>Premonition of The Theme of The Lyre of Orpheus in The Interlude of The Wind and The Waves</i>	01:59:00	<i>The Homage to Brahms Variation of The Theme of The Dawn of Eternal Time in The Deepest Pool</i>
01:00:36	<i>Motif from The Subtractive Variations with Accompaniment</i>	01:29:40	<i>The Theme of The Lyre of Orpheus in The Interlude of The Wind and The Waves</i>	01:59:25 BEGIN LP/Cassette Side Five & CD Three	
01:00:47	<i>The Transition from The Magic Chord to The Magic Opening Chord</i>	01:31:11	<i>Introduction to Cloud in The Interlude of The Wind and The Waves</i>	01:59:25	<i>Lead-in to The Cadence of The Homage to Brahms Variation of The Theme of The Dawn of Eternal Time in The Deepest Pool</i>
01:02:29 The Magic Opening Chord		01:31:29	<i>The Theme of The Lyre of Orpheus</i>	01:59:48 END LP/Cassette Side Four & CD Two	
01:02:29	<i>Introduction to The Goddess of The Caverns under The Pool</i>	01:32:27 BEGIN LP/Cassette Side Four		01:59:49	<i>The Interlude of The Wind and The Waves</i>
01:03:31	<i>The Transition from The Magic Chord to The Magic Opening Chord</i>	01:32:45	<i>The Homage to Brahms Variation of The Theme of The Dawn of Eternal Time in The Deep Pool</i>	02:00:30	<i>Cloud in The Interlude of The Wind and The Waves</i>
01:04:05	<i>Sunlight Filtering through The Leaves</i>	01:33:51 END LP/Cassette Side Three		02:01:49	<i>The Homage to Brahms Variation of The Theme of The Dawn of Eternal Time in The Deepest Pool</i>
01:05:13	<i>The Goddess of The Caverns under The Pool</i>	01:34:38	<i>Introduction to Young's Boogie in Eb</i>	02:02:07	<i>Young's Böse Boogie in Eb (with lowest Eb)</i>
01:05:39	<i>Sunlight Filtering through The Leaves</i>	01:35:27	<i>Cloud in The Interlude of The Wind and The Waves</i>	02:04:44	<i>Young's Böse Brontosaurus Boogie</i>
01:06:16	<i>The Transition from The Magic Chord to The Magic Opening Chord</i>	01:36:00	<i>Introduction to Young's Boogie in Eb</i>	02:06:06	<i>The Goddess of The Caverns under The Pool</i>
01:07:07	<i>Sunlight Filtering through The Leaves</i>	01:36:11	<i>The Theme of The Lyre of Orpheus</i>	02:06:39	<i>The Premonition of The Theme of The Lyre of Orpheus Variation of The Goddess of The Caverns under The Pool</i>
01:07:19	<i>The Goddess of The Caverns under The Pool</i>	01:36:28	<i>The Interlude of The Wind and The Waves</i>	02:10:39	<i>Sunlight Filtering through The Leaves</i>
01:07:58	<i>The Shimmering Pool Reflecting The ²⁸⁸/₁₄₇ Premonition of The Theme of The Dawn of Eternal Time Recalled in The ¹⁶⁹/₆₈ Lost Ancestral Lake Region</i>	01:36:44	<i>Cadence from The Homage to Brahms Variation in diminution</i>	02:11:12	<i>Sunshine in The Old Country</i>
01:10:44	<i>Approach to The Fountain in The Clearing</i>	01:36:51	<i>The Homage to Brahms Variation of The Theme of The Dawn of Eternal Time in The Deep Pool</i>	02:11:58	<i>Cloud in Sunshine in The Old Country becoming...</i>
01:12:06	<i>First Glimpse of The Fountain</i>	01:37:12	<i>Young's Boogie in Eb</i>	02:12:12	<i>The Fountain</i>
01:12:13	<i>Discovering The Fountain</i>	01:37:41	<i>The Interlude of The Wind and The Waves</i>	02:12:57	<i>Sunshine in The Old Country leading to...</i>
01:12:27	<i>The Fountain (cloud)</i>	01:37:51	<i>Cloud in The Interlude of The Wind and The Waves</i>	02:13:16	<i>The Premonition of The Theme of The Lyre of Orpheus Variation of The Goddess of The Caverns under The Pool</i>
01:13:22	<i>Sunlight Filtering through The Leaves</i>	01:38:28	<i>The Clearing</i>	02:13:36	<i>Sunlight Filtering through The Leaves</i>
01:14:02	<i>The Clearing</i>	01:39:16	<i>The Fountain</i>	02:13:54	<i>The Clearing</i>
01:14:17	<i>The Goddess of The Caverns under The Pool</i>	01:42:44	<i>Cloud in The Interlude of The Wind and The Waves</i>	02:14:19	<i>The Fountain</i>
		01:43:00	<i>Young's Boogie in Eb</i>	02:16:43	<i>Introduction to Young's Böse Brontosaurus Boogie</i>
		01:43:31	<i>The Interlude of The Wind and The Waves</i>	02:17:09	<i>Young's Böse Brontosaurus Boogie</i>

02:20:30	<i>The Brook</i>	02:45:27	<i>The Shimmering Pool Reflecting The 289/47 Premonition of The Theme of The Dawn of Eternal Time Recalled in The 189/88 Lost Ancestral Lake Region</i>	03:14:11	Motifs from <i>The Gamelan Theme</i> in <i>The Romantic Chord</i>
02:21:29	<i>We Followed The Brook up into The Foothills</i>	02:45:47	<i>The Complete Hommage à Debussy Sequence</i>	03:15:59	Cloud in <i>The Gamelan Chord</i>
02:21:43	<i>The Brook</i>	02:46:27	Restatement of <i>The Complete Hommage à Debussy Sequence</i>	03:20:29	<i>The Gamelan Theme and Variations over Cloud</i>
02:22:23	<i>Sunlight Filtering through The Leaves</i>	02:47:03	Touch of <i>Sunlight Filtering through The Leaves</i> within <i>Hommage à Debussy Sequence</i>	03:24:50	Unaccompanied Motifs from <i>The Slow Section of The Gamelan Theme</i>
02:22:54	<i>The Clearing</i> alternating with <i>Sunshine in The Old Country</i>	02:47:22	Glimpse of <i>The Goddess of The Caverns under The Pool</i> within <i>Hommage à Debussy Sequence</i>	03:25:35	Cloud in <i>The Gamelan Chord</i>
02:23:24	Cloud in <i>The Fountain</i> alternating with <i>Sunshine in The Old Country</i>	02:47:30	Pick-up to...	03:25:59	<i>The Gamelan Theme</i> in the high range over Cloud
02:24:02	<i>The Premonition of The Theme of The Lyre of Orpheus Variation of The Goddess of The Caverns under The Pool</i>	02:47:39	<i>The Complete Hommage à Debussy Sequence</i>	03:26:53	<i>The Gamelan Theme</i>
02:24:30	<i>Sunlight Filtering through The Leaves</i>	02:48:03	<i>Hommage à Debussy Sequence</i> begins again	03:27:19	Bursts in <i>The Gamelan Theme</i>
02:24:40	<i>The Shimmering Pool Reflecting The 289/47 Premonition of The Theme of The Dawn of Eternal Time Recalled in The 189/88 Lost Ancestral Lake Region</i>	02:48:50	Introduction to <i>The Chorale Theme</i>	03:27:35	<i>The Gamelan Theme over Cloud</i>
02:26:09	<i>The Fountain</i>	02:49:07	<i>The Chorale Theme</i>	03:28:26 BEGIN LP/Cassette Side Eight	
02:32:15	subsides into...	02:49:21	<i>Hommage à Debussy Sequence</i>	03:28:26	<i>The Romantic Chord</i>
02:32:17	<i>The Brook</i>	02:49:31	<i>The Simple Sequence</i>	03:28:33	<i>The Penultimate Theme</i>
02:32:38 BEGIN LP/Cassette Side Six		02:49:51	Motifs from <i>The Chorale Theme</i>	03:29:41	Recalling <i>The Theme of The Dawn of Eternal Time in The 189/88 Lost Ancestral Lake Region</i>
02:32:38	<i>Sunlight Filtering through The Leaves</i>	02:50:08	<i>The Organum Introduction to The Chorale Theme</i>	03:29:57 END LP/Cassette Side Seven	
02:32:41 END LP/Cassette Side Five		02:50:15	<i>The Chorale Theme</i>	03:29:57	<i>The Penultimate Theme</i> in <i>The 189/88 Lost Ancestral Lake Region</i>
02:33:15	<i>Hommage à Debussy Sequence</i> begins	02:51:09	Motifs from <i>The Final Sequence</i>	03:31:36	Introduction to Cloud in <i>The 189/88 Lost Ancestral Lake Region</i>
02:33:27	Touch of <i>Sunlight Filtering through The Leaves</i>	02:51:23	<i>The Chorale Theme</i>	03:31:51	Cloud in <i>The 189/88 Lost Ancestral Lake Region</i>
02:33:29	<i>Hommage à Debussy Sequence</i> continues	02:52:01	Motifs from <i>The Final Sequence</i>	03:39:48	The Consequent of <i>The Romantic Cadence</i> in <i>The Penultimate Theme</i>
02:33:49	<i>The Clearing</i>	02:52:17	<i>The Chorale Theme</i>	03:40:15	<i>The Romantic Cadence</i> in <i>The Penultimate Theme</i>
02:33:59	<i>Hommage à Debussy Sequence</i> continues	02:53:04	<i>The Simple Sequence</i>	03:40:47	<i>The Romantic Cadence</i> in octaves as <i>The Transition</i> from <i>The Penultimate Theme</i> to <i>The Tamiar Dream Chord</i>
02:34:49	Introduction to <i>The Goddess of The Caverns under The Pool</i>	02:53:32	<i>The Chorale Theme</i>	03:41:14	Introductory Motifs from <i>The Tamiar Dream Chord</i>
02:35:06	<i>The Premonition of The Theme of The Lyre of Orpheus Variation of The Goddess of The Caverns under The Pool</i>	02:53:51	Pick-up to <i>The Modern Sequence</i>	03:41:23	<i>The Classical Cadence</i> in octaves from <i>The Penultimate Theme</i>
02:35:23	<i>Sunlight Filtering through The Leaves</i>	02:53:59	<i>The Modern Sequence</i>	03:41:41	Motifs in octaves leading into...
02:35:51	<i>Hommage à Debussy Sequence</i> continues	02:55:14	<i>The Chorale Theme</i>	03:41:57	<i>The Tamiar Dream Chord</i>
02:36:27	<i>Sunshine in The Old Country</i>	02:55:34	<i>The Modern Sequence</i>	03:43:56	Variation on <i>The Romantic Cadence</i> in <i>The Penultimate Theme</i>
02:36:46	Cloud in <i>Sunshine in The Old Country</i>	02:56:53	<i>The Chorale Theme</i>	03:44:27	The Complete Statement of <i>The Romantic Cadence</i> in <i>The Penultimate Theme</i>
02:37:06	<i>The Fountain</i>	02:57:14	<i>The Classical Sequence</i>	03:44:56	Introduction to <i>Scheherazade</i> through <i>The Tamiar Dream Chord</i>
02:37:20	Cloud in <i>Sunshine in The Old Country</i>	02:58:06	<i>The Chorale Theme</i>	03:45:10	<i>Scheherazade</i>
02:37:27	<i>The Fountain</i>	02:58:19	<i>The Final Sequence</i>	03:45:21	<i>The Theme of Scheherazade</i>
02:40:31	<i>The Fountain</i> subsides into <i>The Clearing</i>	02:59:22	<i>The Chorale Theme</i>	03:45:58	Cloud in <i>Scheherazade</i>
02:40:36	<i>The Shimmering Pool Reflecting The 289/47 Premonition of The Theme of The Dawn of Eternal Time Recalled in The 189/88 Lost Ancestral Lake Region</i>	02:59:34	Pick-up to <i>The Final Sequence</i>	03:46:24	<i>The Theme of Scheherazade</i>
02:41:25	<i>The Theme of The Dawn of Eternal Time</i> in <i>The Opening Chord</i>	02:59:43	<i>The Final Sequence</i>	03:47:00	Cloud in <i>Scheherazade</i>
02:43:05	<i>The Theme of The Dawn of Eternal Time</i> continued in <i>The Pool</i>	03:00:38 END LP/Cassette Side Six & CD Three		03:47:48	Cloud in <i>The 189/88 Lost Ancestral Lake Region</i>
02:43:20	<i>Hommage à Debussy Sequence</i> leading to...	03:00:38 BEGIN LP/Cassette Side Seven & CD Four		03:48:49	<i>Scheherazade</i> (cloud continues)
02:43:42	Glimpse of <i>Sunshine in The Old Country</i>	03:00:38	<i>The Chorale Theme</i>	03:49:17	<i>The 189/88 Lost Ancestral Lake Region</i> (cloud continues)
02:43:56	<i>Hommage à Debussy Sequence</i> continues	03:01:15	<i>The Moonlight Sonata Passage</i>	03:50:15	<i>Scheherazade</i> (cloud continues)
02:44:37	Glimpse of <i>Sunshine in The Old Country</i>	03:05:31 The Romantic Chord		03:50:21	<i>The 189/88 Lost Ancestral Lake Region</i> (cloud continues)
02:44:57	Pick-up to <i>Hommage à Debussy Sequence</i> leading to...	03:05:56	Motifs from <i>The Bonn Theme</i> , ending with <i>The Answer</i>	03:50:35	<i>Scheherazade</i> (cloud continues)
02:45:04	<i>Sunlight Filtering through The Leaves</i>	03:06:59	<i>The Original Romantic Theme</i>	03:51:06	<i>The 189/88 Lost Ancestral Lake Region</i> (cloud continues)
02:45:11	<i>Hommage à Debussy Sequence</i> continues	03:08:38	<i>The Bremen Theme</i> (Question)	03:51:19	<i>Scheherazade</i> (cloud continues)
		03:09:09	<i>The Bremen Theme</i> (Answer)		
		03:09:48	<i>The Ornamental Return</i>		
		03:10:33	<i>The Bonn Theme</i>		
		03:11:18	<i>The Bremen Theme</i> (Question)		
		03:11:37	<i>The Bremen Theme</i> (Answer)		
		03:12:06	A Fragment from <i>The Penultimate Theme</i>		
		03:12:37	Recalling Motifs from <i>The Theme of The Magic Chord</i>		
		03:13:00	<i>The Bremen Theme</i> (Question)		
		03:13:20	<i>The Bremen Theme</i> (Answer)		
		03:13:37	Introduction to <i>The Gamelan Chord</i>		
		03:13:48	Cloud in <i>The Gamelan Chord</i>		

03:51:37	<i>The 1890s Lost Ancestral Lake Region</i> (cloud continues)	04:26:32	<i>The Cadence of Paradise</i>	04:50:22	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Deep Lost Ancestral Lake Region</i>
03:51:45	<i>The Flying Carpet</i> (cloud continues)	04:26:38	<i>Recalling The Theme of The Dawn of Eternal Time in The Elysian Fields</i>	04:50:30	Cloud in <i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Lost Ancestral Lake Region</i> in Augmentation
03:52:58	<i>The 1890s Lost Ancestral Lake Region</i> (cloud continues)	04:26:44	<i>The Theme of The Lyre of Orpheus in The Elysian Fields</i>	04:52:38	Approach to <i>The Penultimate Theme</i>
03:53:15	<i>The Flying Carpet</i> (cloud continues)	04:28:55	BEGIN LP/Cassette Side Ten	04:52:55	<i>The Penultimate Theme</i>
03:55:20	<i>The Theme of Scheherazade</i>	04:29:37	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Deepest Lost Ancestral Lake Region</i>	04:53:05	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Lost Ancestral Lake Region</i>
03:55:52	<i>The Classical Theme</i> , second part, in <i>Scheherazade</i>	04:30:46	END LP/Cassette Side Nine	04:53:14	Approach to <i>The Penultimate Theme</i>
03:56:12	<i>The Classical Theme</i> , first part, in <i>Scheherazade</i>	04:31:29	<i>The Penultimate Theme</i>	04:53:22	Motifs from <i>The Eternal Return</i>
03:56:25	Cloud in <i>The 1890s Lost Ancestral Lake Region</i>	04:31:53	<i>The Penultimate Theme</i> continued in four-part harmony	04:53:42	<i>The Penultimate Theme</i>
03:57:03	<i>Scheherazade</i> (cloud continues)	04:32:38	<i>The Cadence of Paradise</i> in <i>The Magic Chord</i> ending with repeated note Accompaniment leading to...	04:54:09	<i>The Penultimate Theme</i> in four-part harmony
03:57:11	<i>The 1890s Lost Ancestral Lake Region</i> (cloud continues)	04:32:48	Motifs from <i>The Subtractive Variations of The Theme of The Magic Chord</i> over repeated note Accompaniment	04:54:42	<i>The Penultimate Theme</i> continued in arpeggiated five-part harmony ending with...
04:00:32	Approach to <i>The Penultimate Theme</i> culminating in...	04:33:02	<i>The Romantic Cadence</i> over repeated note Accompaniment	04:55:04	<i>The Cadence of Paradise</i>
04:00:48	<i>The Romantic Cadence</i>	04:33:18	Motif from <i>The Subtractive Variations of The Theme of The Magic Chord</i> unaccompanied	04:55:20	Cloud in <i>The 1890s Lost Ancestral Lake Region</i>
04:01:24	BEGIN LP/Cassette Side Nine & CD Five	04:33:24	The Consequent of <i>The Romantic Cadence</i> in two-part harmony with the lower note anticipating the upper	04:55:36	Approach to <i>The Penultimate Theme</i>
04:01:25	END LP/Cassette Side Eight & CD Four	04:33:33	The Complete Statement of <i>The Romantic Cadence</i> in two-part harmony with the lower note anticipating the upper	04:55:47	<i>The Penultimate Theme</i>
04:01:25	The Elysian Fields	04:33:37	<i>The Subtractive Variations of The Theme of The Magic Chord</i> over repeated note Accompaniment	04:56:26	Motifs from <i>The Slow Section of The Gamelan Theme</i> leading into...
04:01:25	Restatement of <i>The Romantic Cadence</i> in <i>The Penultimate Theme</i>	04:34:10	The Complete Statement of <i>The Romantic Cadence</i> in two-part harmony ending in...	04:56:37	<i>The Gamelan Theme</i> over Cloud
04:01:51	<i>Recalling The Theme of The Dawn of Eternal Time in The Elysian Fields</i>	04:34:20	Introduction to Cloud in <i>The Subtractive Variations of The Theme of The Magic Chord</i>	04:57:45	Approach to...
04:02:33	Approach to...	04:35:04	Cloud in <i>The Magic Chord</i>	04:58:01	<i>The Cadence of Paradise</i> arpeggiated
04:02:46	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Deep Lost Ancestral Lake Region</i>	04:40:25	<i>The Gamelan Theme</i> over Cloud	04:58:12	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Lost Ancestral Lake Region</i>
04:03:11	<i>The Ancestral Boogie</i>	04:40:38	<i>The Additive Variations of The Slow Section of The Gamelan Theme</i> in bursts	04:59:41	The Ending
04:04:03	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Deep Lost Ancestral Lake Region</i>	04:41:27	<i>The Slow Section of The Gamelan Theme</i>	05:00:16	<i>The Opening Chord</i>
04:05:26	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Deepest Lost Ancestral Lake Region</i> (with lowest G)	04:41:57	<i>The Gamelan Theme</i>	05:00:25	Final dyad
04:06:45	<i>The Ancestral Böse Boogie</i> (with lowest G)	04:42:21	Cloud in <i>The Gamelan Chord</i> interwoven with Variations on <i>The Gamelan Theme</i>	05:01:22	End LP/Cassette Side Ten & CD Five
04:07:41	<i>The Penultimate Theme</i>	04:45:10	<i>The Romantic Chord</i>		
04:08:31	<i>The Cadence of Paradise</i> in <i>The Penultimate Theme</i>	04:45:15	<i>The Bonn Theme</i>		
04:08:44	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Lost Ancestral Lake Region</i>	04:45:58	The Cadence of <i>The Penultimate Theme</i> in the low range		
04:08:56	<i>The Theme of The Lyre of Orpheus in The Elysian Fields</i>	04:46:30	<i>The Romantic Cadence</i> in the low range		
04:14:31	Bursts in <i>The Theme of The Lyre of Orpheus</i>	04:47:10	Motifs from <i>The Subtractive Variations of The Magic Chord</i> in the low range of <i>The Tamiar Dream Chord</i>		
04:15:12	<i>The Theme of The Lyre of Orpheus</i> from deep in <i>The Elysian Fields</i>	04:47:30	<i>Recalling The Theme of The Dawn of Eternal Time in The Elysian Fields</i>		
04:15:47	Low Cloud in <i>The Elysian Fields</i>	04:47:46	<i>The Theme of The Lyre of Orpheus in The Elysian Fields</i>		
04:18:46	<i>The Theme of The Lyre of Orpheus</i>	04:49:31	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Deepest Lost Ancestral Lake Region</i>		
04:19:34	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Lost Ancestral Lake Region</i>	04:49:46	<i>The Ancestral Böse Boogie</i>		
04:20:14	<i>Scheherazade</i>	04:50:08	<i>The Penultimate Theme</i>		
04:20:27	<i>The Theme of Scheherazade</i>				
04:20:43	Cloud in <i>Scheherazade</i>				
04:22:25	Motifs from <i>The Theme of Scheherazade</i>				
04:22:40	<i>The Theme of Scheherazade</i>				
04:22:59	Introduction to <i>The Flying Carpet</i>				
04:23:17	Cloud in <i>The Flying Carpet</i>				
04:24:05	Cloud in <i>Scheherazade</i>				
04:24:36	<i>The Penultimate Theme</i>				
04:25:07	<i>Recalling The Theme of The Dawn of Eternal Time in The 1890s Deep Lost Ancestral Lake Region</i>				
04:25:53	<i>The Penultimate Theme</i> ending with...				

Copyright © 1987 La Monte Young.

Edited with Michael Harrison and Marian Zazeela, with special thanks to Michael for his extraordinary dedication and assistance in the preparation of this manuscript.

La Monte Young: A Biography

David Farneth

"La Monte Young is often considered the granddaddy of the minimalists, even though they are all contemporaries. His influence is surprisingly broad." (Peter Goodman, *Newsday*, 1 April 1984)

"... as the acknowledged father of minimalism and guru emeritus to the British art-rock school, his influence is pervasive." (Charles McCardell, *Musician Magazine*, February 1986)

"It is indisputable that Young has been one of the most innovative contemporary composers." (Robert Palmer, *Atlantic*, May 1981)

"For the last quarter of a century he has been the most influential composer in America. Maybe in the world." (Mark Swed, *Los Angeles Herald Examiner*, November 1985)

Many writers have attempted to capture the essence of La Monte Young and his music in the titles to their articles: "Johnny One-Note," "Lost in the Drone Zone," "Eternal Music in a Dreamhouse Barn," "Explorer of the L-O-N-G Tone," "No More Ta-Rum, Ta-Rum," "A Father Figure for the Avant-Garde," "Get Ready for Music of the Harmonics," and "Living and Listening in Real Time." A personal favorite is "When La Monte Young Says 'Take It From the Top,' He Means Last Wednesday."

Who is La Monte Young? Why can he be considered "the most influential composer in America" when a majority of the new music audience has never heard even one of his compositions? Why is his music so elusive? Does he write for "now" or for posterity? Is he a purist or an eclectic? A classic or myth?

La Monte Young is like a one-man space race to the moon. Just as the technological spin-offs of NASA have influenced diverse aspects of American life, Young's determined cultivation of a few musical idioms has inadvertently introduced new techniques to a wide variety of artists, composers, and musicians working in rock, jazz, and "serious" music. For Young, music is a supernatural form of communication which grows organically from purely natural phenomena. With inspiration and stubborn conviction as the guiding forces, he has worked in jazz, long tones, concept art, mixed media, and, finally, just intonation to compose music which,

upon hearing, can only be identified as "pure La Monte Young." You can make no mistake about it.

Born on 14 October 1935 to Dennis and Evelyn Young in a log cabin in the small, Mormon community of Bern, Idaho, Young fondly recalls his early and wide-ranging musical impressions: the wind whistling through chinks in the logs of the cabin, saxophone lessons with his father and Uncle Thornton, singing cowboy songs and tap dancing for his family, saxophone solos at church, the humming sounds produced by the transformers at the power plant, summers of listening to the droning of lathes and drill presses at a machine shop, and later, train whistles near his grandmother's house in Los Angeles.

Young attended John Marshall High in Los Angeles as a music major at a school known for producing excellent jazz saxophonists and studied clarinet and saxophone privately with William Green at the Los Angeles Conservatory of Music. Beginning in 1953, he spent three years

at Los Angeles City College where Leonard Stein introduced him to the music of Debussy, Schoenberg, Webern, Boulez, and Stockhausen. An early achievement was winning a choice seat in the school's dance band over his friend and classmate, Eric Dolphy. During this same period, Young led his own group which included drummer Billy Higgins, guitarists Dennis Budimer and Tiger Echols, and, frequently, trumpeter Don Cherry.

Upon transferring to UCLA in 1957, Young continued his studies with Stein while composing some notable counterpoint studies under Robert Stevenson. The first compositions which point to his mature style (*Five Small Pieces for String Quartet* and *Variations for Alto Flute, Bassoon, Harp, and String Trio*) were strongly influenced by Webern and employ serial techniques, pointilism, sparse textures and ostinati. Young was drawn to the stasis that Webern achieved by repeating pitches at the same octave. He introduced himself to non-Western

The Log Cabin, Bern, Idaho, 1980. Photo: Marian Zazeela. Copyright © Marian Zazeela 1987.



music through recordings of the Indian musician Ali Akbar Khan and by listening to rehearsals of the Japanese gagaku orchestra. Hearing this music while studying European plain chant, Young began to synthesize sustained environmental sounds with the similar musical elements of drones and organum. Fascinated with the purity and pristine beauty of sustained tones, he incorporated them in compositions of this period: *for Brass*, *for Guitar* and *Trio for Strings*. These compositions place the emphasis entirely on harmony; melody is virtually nonexistent. Stasis and extended duration (long tones) become the basis of the composition. The few notes are manipulated by exact and explicit procedures, and thus it is with these works that Young began to define minimalism in music. Not surprisingly, most of his teachers and peers found little to praise in these compositions which brazenly ignored the Western tradition of climax and directionality.

However, Young was not easily discouraged. With characteristic persistence and clarity of vision, he pursued graduate studies in composition in an environment he had hoped would be more receptive to his unconventional ideas, the University of California at Berkeley. His principal teachers were Andrew Imbrie and Seymour Shifrin. In the fall of 1958, the *Trio for Strings* was performed in Shifrin's composition class which included David Del Tredici, Terry Riley, and Pauline Oliveros. It is not surprising that the fifty-one minutes of hushed, sustained tones elicited a heated debate which continued well beyond the confines of the classroom. Young recalls, "Almost everyone thought I had gone off the deep end." The *Trio for Strings* achieved instant notoriety and stirred its own, albeit quiet, *Rite of Spring*-like controversy. It is during this period that Young and Riley became fast friends and passed many late nights discussing the intrinsic nature of sound and its place in "serious" composition.

Young won a scholarship to attend Stockhausen's first composition seminar in Darmstadt during the summer of 1959. Stockhausen was especially impressed with the *Trio for Strings* and began including discussions of Young's works in his composition classes. It was here that Young met David Tudor, and within a year Cage and Tudor were giving concerts of Young's music throughout Europe. Returning to Berkeley with new ideas for the possibilities of compositions using sounds that had never before been considered musical, Young quickly

re-established his reputation as the *enfant terrible*, presenting two new works, *Vision* and *Poem for Chairs, Tables, Benches, etc.* at noontime concerts which he organized at Hertz Hall. Both works feature aleatoric operations and unconventional sound sources (such as the scraping of furniture across the floor) but the overall intent was to structure nonrelated events over a given period of time while assigning certain parameters to the discretion of the performers. It was also at Berkeley that Young teamed with Riley, Walter De Maria, and others to perform improvised concerts of friction sounds and collages of electronic and concrete sounds. One composition of this genre, *2 sounds* was subsequently used extensively as the score to a Merce Cunningham ballet, "Winterbranch."

He began to compose a series of numbered compositions in May 1960 which were even more extreme. There were no musical notes at all, simply words of instruction. Perhaps inspired by his friend, poet Diane Wakoski, some of these verbal compositions blur the lines among theater, musical composition, and poetry, and explore newly defined relationships between the audience, the performer, and the composition. In other words, the audience exchanges roles with the performer, the performer with the audience, and the composition becomes the means for staging a theatrical event. *Composition 1960 No. 2* instructs the performer to build a fire in front of the audience and further specifies: "In the event that the performance is broadcast, the microphone may be brought up close to the fire." Another instructs the performer to turn a butterfly loose in the auditorium.

In the midst of this flurry of composition and with the assistance of a traveling scholarship from the university, Young went to New York in September 1960 with the intention of studying with John Cage and Richard Maxfield. Rumor has it that the traveling grant was awarded, at least in part, to provide Berkeley a reprieve from the shenanigans of the twenty-four-year-old upstart.

Concept Art and Fluxus

Moving into an apartment on Bank Street in Greenwich Village, Young began studying electronic music with Maxfield at the New School for Social Research. While working with Maxfield, Young was introduced to a circle of composers, writers, and visual artists including

La Monte Young, *Trio for Strings*, 1958, pages 1 and 2 of 11. Copyright © 1964 La Monte Young dba Just Eternal Music.

Composition 1960 #5

Turn a butterfly (or any number of butterflies) loose in the performance area.

When the composition is over, be sure to allow the butterfly to fly away outside.

The composition may be any length but if an unlimited amount of time is available, the doors and windows may be opened before the butterfly is turned loose and the composition may be considered finished when the butterfly flies away.

6-8-60

Composition 1960 #7



to be held for a long time.

La Monte Young
July 1960

Composition 1960 #10
to Bob Morris

Draw a straight line
and follow it.

October 1960

Piano Piece for David Tudor #1

Bring a bale of hay and a bucket of water onto the stage for the piano to eat and drink. The performer may then feed the piano or leave it to eat by itself. If the former, the piece is over after the piano has been fed. If the latter, it is over after the piano eats or decides not to.

October 1960

Composition 1960 #15
to Richard Huelsenbeck

This piece is little whirlpools
out in the middle of the ocean.

9:05 A.M.
December 25, 1960

Jackson MacLow, George Brecht, Dick Higgins, Allan Kaprow, Morton Feldman, and Larry Poons. Young, a born organizer, soon arranged with Yoko Ono to make her loft on Chambers Street available for a series of performances. It was obvious to Young that his compositions and those of his associates would not soon be presented at Carnegie Hall, nor was he particularly interested in reaching the traditional concert-going public. Therefore, when the mimeographed programs for this loft series were distributed, prominently displayed was the warning, "THE PURPOSE OF THIS SERIES IS NOT ENTERTAINMENT." Contrary to most presentations of contemporary music, each artist/composer was given two complete evenings in which to present his work. The featured artists, in addition to Young, included MacLow, Maxfield, Terry Riley, Simone Forti (dancer), Toshi Ichihyanagi, Henry Flynt (who coined the term "concept art"), Joseph Byrd, Robert Morris (sculptor), and Terry Jennings (saxophonist and composer). Thus, as early as 1960, Young was firmly established and comfortable with the idea of being a "downtown" composer.

The composition that may be considered Young's most "minimal" (if one adopts the popular definition that such works should include repetitive rhythmic figures) is *arabic numeral (any integer) to H.F.* (1960). This work requires the performer to repeat a loud, heavy sound every one or two seconds as uniformly and regularly as possible for a long period of time. The piece gained popularity rapidly; David Tudor, Cornelius Cardew and Nam June Paik often performed it throughout Europe.

Young continued his series of *Compositions 1960*, making them even more imaginative and poetic. George Maciunas, graphic designer, publisher, producer, and general Robin Hood figure for struggling downtown artists was drawn to the creative spirit of Young's compositions. Maciunas, caught up in his innate enthusiasm, offered to publish Young's complete works in special editions. Young declined the offer, but instead accepted Maciunas' proposal to produce his already-edited compilation of music, dance constructions, events, and poetry. Published in 1963 under the title of *An Anthology*, the collection includes contributions from twenty-six artists and has become one of the primary sources of documentation for the early creative work of this diverse group. During the publication process of *An Anthology* (it took three years, due to budget limitations and the complexity of the production), Maciunas

organized the artists into a group which he called "Fluxus" and continued to publish and present their work in the U.S. and Europe.

In 1961, Young composed his most "conceptual" work, *Compositions 1961*, by writing an entire year's output at one sitting; that is, he conceived and dated (i.e. post dated) twenty-eight of these twenty-nine compositions before they actually happened. With this stroke of the pen, he retired from "conceptual" composition, leaving the genre to others who remained active in the Fluxus movement. In spite of his dissociation from Fluxus, he was persuaded through one of his typically outlandish "barter deals" with Maciunas to conduct the Fluxus Orchestra in a concert at Carnegie Recital Hall in 1965.

Mixed Media

Young acknowledges the fact that he prefers to work alone and collaborates only with his wife, Marian Zazeela and his teacher of Indian classical music, Pandit Pran Nath. In 1963, Young and Zazeela helped to pave the way for the downtown loft-living movement by occupying a commercial space on Church Street, south of Canal. Zazeela had already developed a refined calligraphic style of painting and was beginning to experiment with the medium of light while continuing to develop her calligraphy and drawing. Zazeela's artistic sensibilities perfectly matched those of Young's, and the collaborative process which evolved has continued ever since.

In 1962, Young bought a soprano saxophone, and looking back to his jazz days, began playing fast and fluid improvisations using many of the same pitches and intervals to which he had been attracted since his early minimalist compositions of 1957-58. Wishing to control every aspect of his performances, he formed a group of accompanying musicians which consisted of Angus MacLise playing hand drums, Tony Conrad playing amplified violin drone, and Zazeela contributing a voice drone. Soon after, John Cale (who had recently arrived in the United States from Wales) joined the drone section by playing amplified viola. Rehearsing usually six or seven days a week, the group recorded selected sessions, resulting in an archive of historic recordings including the works *Bb Dorian Blues*, *Sunday Morning Blues*, *Early Tuesday Morning Blues*, and *The Overday*.

La Monte Young. *Composition 1960 # 5*, 1960. Copyright © La Monte Young 1963. Reprinted from *An Anthology*, 1963.

La Monte Young. *Composition 1960 # 7*, 1960. Copyright © La Monte Young 1963. Reprinted from *An Anthology*, 1963.

La Monte Young. *Composition 1960 # 10*, 1960. Copyright © La Monte Young 1963. Reprinted from *An Anthology*, 1963.

La Monte Young. *Piano Piece for David Tudor # 1*, 1960. Copyright © La Monte Young 1963. Reprinted from *An Anthology*, 1963.

La Monte Young. *Composition 1960 # 15*, 1960. Copyright © La Monte Young 1963. Reprinted from *An Anthology*, 1963.



La Monte Young ca. 1961, New York, NY. Photo: George Maciunas. Courtesy The Gilbert and Lila Silverman Fluxus Collection.

Young called his group The Theatre of Eternal Music and he began developing musical ideas which would eventually lead to his articulation of the concept of *Dream House*, an all-encompassing term which describes the composition, the performance, the production, and even the performance space. *Dream House* is conceived as an ongoing mixed media work which gradually unfolds with the performance of different sections. Integral to the notion of *Dream House* is the existence of a group of highly trained musicians who improvise over electronic and acoustic drones according to predetermined parameters. Each musician must be astutely aware of the other performers' improvisations in order to place his pitches correctly, according to the rules of the system. Young derives his harmonies from a universe of pitches prescribed in his theoretical work, *The Two Systems of Eleven Categories*, which categorizes intervals according to their resultant combination tones. As in the *Trio for Strings*, harmony is the most important musical element with prominence given to chordal progression and vertical structuring of sonorities.

For the visual component of *Dream House*, Marian Zazeela created *Ornamental Lightyears Tracery* which is made of a series of slide projections of interlocking patterns and color combinations superimposed four at a time over the entire stage. A projectionist performs the light work concurrently with the music, and as the static variations of the music are executed, the patterns of colored light slowly permute and combine in

much the same manner as the performers weave their improvised sonorities.

Performances of *Dream House* require a sizable group of musicians, technical engineers, projectionists, and two tons of electronic equipment. Over the years the members of The Theatre of Eternal Music have included Terry Riley, Jon Gibson, David Rosenboom, Alex Dea, Jon Hassell and Garrett List. By organizing his own group of specially trained musicians, Young was able to insure the accurate performance of his non-traditional musical ideas. This approach was later adopted by both Steve Reich and Philip Glass and became crucial to establishing a widely accepted minimalist music aesthetic.

It was during this period in the mid-sixties that John Cale was rushing between rehearsals of The Theatre of Eternal Music and rehearsals of the Velvet Underground, a rock group which at its inception included Tony Conrad, Walter De Maria and Angus MacLise. Robert Palmer has commented, "Few critics have realized how decisively La Monte Young's music — his drone groups, his early piano playing, his *Drift Studies* for sine wave generators, his insistence on setting his amplification at numbing volume levels — shaped the sound and style of the Velvet Underground. Most pop listeners preferred the Beatles' *Sgt. Pepper's Lonely Hearts Club Band*, which was released around the same time, but the first Velvets album has proved equally influential."

Young fleetingly brushed shoulders with the "uptown" crowd when in 1967 he provided the soundtracks for three short films by Andy Warhol which were premiered at the 2nd New York Film Festival at Lincoln Center. Consisting of highly amplified drones, Young felt compelled to withdraw his work because of a dispute with the management over the ear-splitting sound levels he required.

Young and Zazeela continued their collaboration by creating a series of sound and light sculptures and more importantly, they combined Young's *Drift Studies* (compositions solely comprised of sine wave drones) with Zazeela's light works and specified a new medium which they called "sound and light environments." As The Theatre of Eternal Music concertized throughout the United States and Europe, Young established *Dream Houses* and sound and light environments in museums and loft-like performance spaces, where he insisted

upon shoeless audiences and floor seating. These presentations included Munich (1969), Fondation Maeght, St. Paul de Vence (1970), Galleria LP 220, Torino (1971), Metropolitan Museum, New York (1971), documenta 5, Kassel (1972), Contemporanea Festival, Rome (1973), and The Kitchen, New York, (1974). Heiner Friedrich sponsored a number of Young's European performances and produced his first limited edition, commercial recording on the Edition X label, featuring sections from *Map of 49's Dream The Two Systems of Eleven Sets of Galactic Intervals Ornamental Lightyears Tracery* and *the volga delta*. (Friedrich also published his *Selected Writings* and, as the driving force behind the Dia Art Foundation, would soon play an even more important role in Young's career.)

Just Intonation

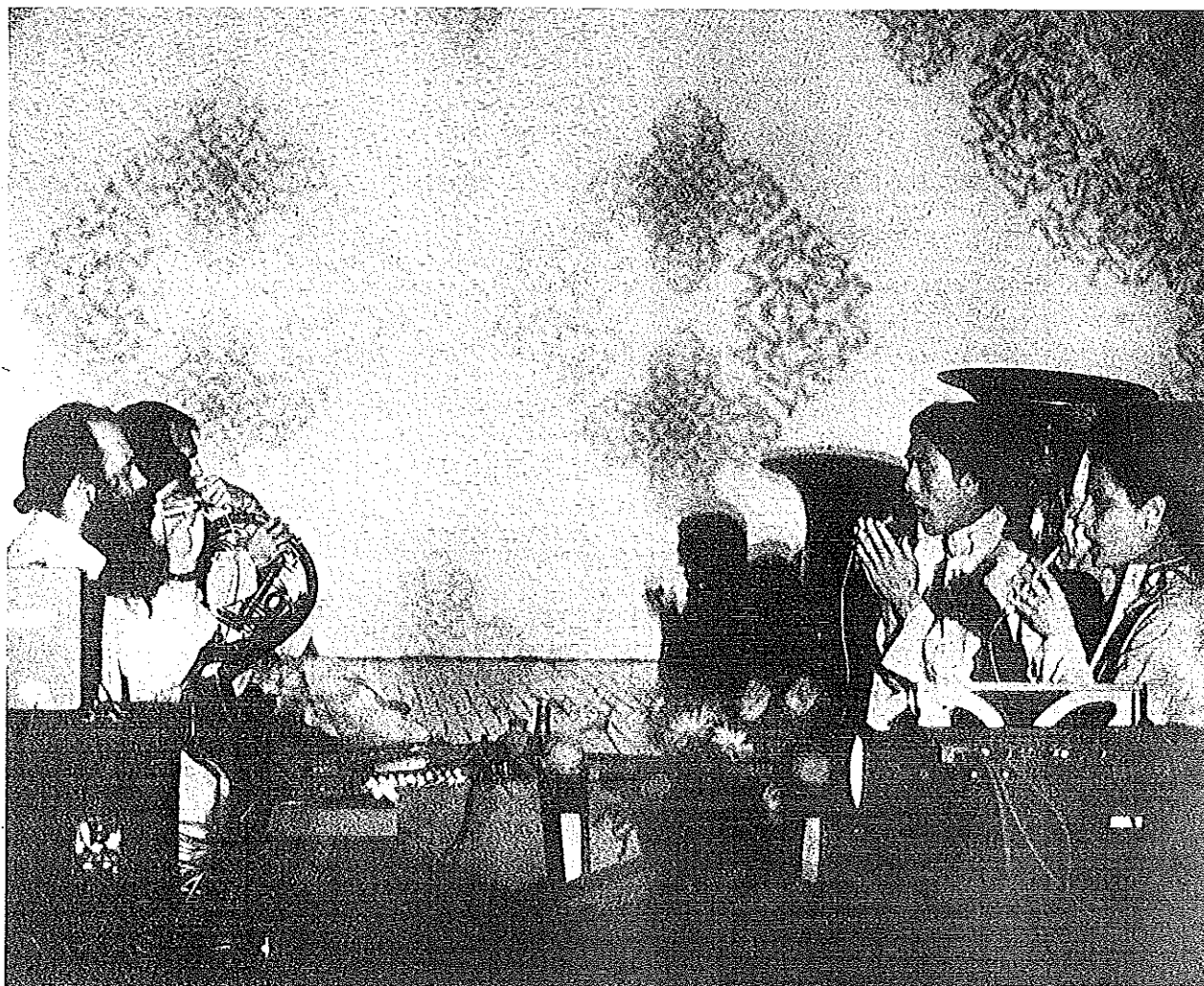
Although often labeled "the first minimalist composer," Young will undoubtedly secure a greater place in history because of his distinguished work in the area of tuning. Becoming deeply involved with tuning as early as 1962, he began to develop his "tuning is a function of time" theory. This preoccupation with tuning led to changes in his music which would have a lasting effect. He gave up the saxophone as a performing medium because it lacked the flexibility to sustain the precisely tuned pitches he was attempting to achieve. Young solved the problem by turning to singing, the one medium over which he could exercise complete control. The next lasting innovation was the introduction of electronically generated drones into his music. Young came upon this idea almost accidentally. He was fascinated by the lore and personality of turtles — their longevity, prehistoric ancestry, and slow, unhurried existence. He and Zazeela had a pet box turtle, "49", and also kept a host of smaller turtles (many of which were also named after partials from the overtone series such as "7" and "6") in a plastic wading pool at one end of the loft. Just as he sang with the metal-working lathes in high school, Young enjoyed singing to his turtles while using the aquarium motor as a drone. Next, he amplified the drone of the motor and added it to the group. As soon as he could afford better equipment, he replaced these primitive sound sources with more sophisticated, tunable sine wave generators. He trained the musicians in his group to play in just intonation and subsequently composed versions of *Trio for Strings* and *for Guitar* in just intonation. He and Zazeela studied the effects of sustained tones by

playing sine waves twenty-four hours a day, sometimes for weeks and months at a time on one chord or interval. And in 1964, he tuned a piano to a system of just intonation and dubbed it *The Well-Tuned Piano*. Subsequent revisions in *The Well-Tuned Piano* tuning enabled him to modulate to different tonal areas, thus overcoming one of the often-criticized shortcomings of just intonation systems. Young continues to compose new tunings and with each acquisition of more sophisticated synthesizers, he combines more and more tones to make up complex sound environments.

Writing in the *New York Times*, Robert Palmer described the challenges inherent in this "new" type of music: "It is music that requires new modes of composition and of sound production as well as new modes of listening. It is a music of harmonics. Harmonics are easier to hear and to identify than to explain." And later in *The Atlantic*, Palmer writes about *The Well-Tuned Piano*, "[It] can evoke spell-binding moods that are too delicate and elusive to quantify. Unlike much of the work of the academic avant-garde, it is music that asks to be experienced, that seeks to produce an immediate, deeply felt sensation."

In Pursuit of Pure Intonation

In 1967, Young heard some tape recordings that would change his life. They were raga performances of the Kirana style, North Indian vocalist, Pandit Pran Nath. Young expressed his reactions in a recent interview: "His music had something that I had never heard before in any other music. First of all, he was singing *perfectly* in tune. Secondly, the feeling that came out of his music was just so strong, so powerful, so moving and beautiful, that I was drawn to studying with him." Young and Zazeela began corresponding with Pran Nath and, in 1970, arranged to bring him to the United States to perform. Young soon developed a compelling artistic and philosophical affinity to Pran Nath's mastery and began to study the distinctive vocal techniques of his ancient tradition — one which conformed to Young's own perceptions of correct singing. In addition, he was drawn to the way in which Pran Nath used his vast knowledge of modes and raga to create moods and to rouse specific feelings in the listener. Young and Zazeela became Pran Nath's disciples and introduced his artistry to the Western world by accompanying his singing on tambura and producing his concerts in the



La Monte Young, Marian Zazeela, *Dream House*, "Map of 49's Dream The Two Systems of Eleven Sets of Galactic Intervals Ornamental Lightyears Tracery;" La Monte Young, voice and electronics; Marian Zazeela, voice; Sharon Stone, voice; Alex Dea, voice; Jon Hassell, horn; Wayne Forrest, tuba; 1975. Dia Art Foundation, 141 Wooster Street, New York, NY. Photo: A. C. Conrad. Copyright © La Monte Young & Marian Zazeela 1978.

U.S. and Europe. After a few years of study, they began to sing with Pran Nath in concert and to present raga concerts with their own group.

One can understand why Young's intuition led him to study with a master Indian singer who had the ability and discipline to sing "perfectly" in tune. The philosophy, development, and teaching of raga fit neatly to Young's predilection for the abstract qualities of tradition, eternity, and posterity. On a more pragmatic level, the similarities between Pran Nath's raga singing and Young's work with his Theatre of Eternal Music are readily drawn: both feature vocal improvisations in just intonation dictated by strict parameters and executed over a drone. And, as early as 1966, Young's writings theorized that specific intervals could elicit predictable sensations in listeners. Because Young typically devotes half of his time to the study and practice of North Indian ragas, it is surprising

to observe that this intense musical activity does not influence his compositions in any obvious manner. He does not incorporate raga into his music and does not imitate raga performance style and techniques in his improvisations. One might suppose that Young would be adverse to violating the homogeneity of either form of expression.

A Temporary Interruption in The Eternal Dream House

The Dia Art Foundation offered Young an opportunity which few creative artists would decline: the chance to pursue his artistic visions free from the pressures and compromises inherent in the commercial marketplace. With proceeds from lucrative oil stocks, Heiner Friedrich and Philippa de Menil Friedrich founded the Dia Art

Foundation and with quiet persistence established a number of independent projects to support the work of numerous artists who, for the most part, had initial prominence in the 1960's. La Monte Young, Marian Zazeela, and through them Pandit Pran Nath, were among this group composed mainly of visual artists including Walter De Maria, Donald Judd, Dan Flavin, Joseph Beuys, Cy Twombly, James Turrell, Blinkey Palermo, John Chamberlain, and Robert Whitman (performance artist). In its initial stages, Dia was inclined to sponsor permanent installations of large-scale projects which were unlikely to find sufficient funding from public sources. La Monte Young's idea of a permanent *Dream House* was a project which conformed perfectly with Friedrich's uncompromising goals.

After presenting a fifty-seven-day series of performances in 1975 under the title of "Dream Festival" sponsored by the Dia Art Foundation at 141 Wooster Street in New York City, the Foundation asked Young to begin searching for a suitable location for a permanent *Dream House*. With the understanding that this proposed *Dream House* was to be their lifelong haven and would ultimately be their definitive creative collaboration, Young and Zazeela spent three years searching diligently for a building which would provide adequate performance, gallery, teaching, rehearsal, and studio space, as well as accommodate a recording studio, public archive, listening facility, and administrative offices. After researching and rejecting several locations, they settled on 6 Harrison Street, the former New York Mercantile Exchange building. In 1979, with building contractors, workmen, and a small administrative staff in place, they began to transform the old but formidable structure into what they hoped would be a lasting center for the study and appreciation of music, art, sound, and light.

As soon as each renovated room satisfied Young and Zazeela's exacting standards, it was opened to the public. Soon they had developed a full program of offerings which featured multiple and interrelated sound and light environments as well as exhibitions of drawings, sound and light sculpture, musical scores, and musical instruments. Zazeela created her critically acclaimed *The Magenta Lights* as a site-specific light work for the performance space, a majestic room with 30-foot ceilings which had been transformed from the old trading floor of the stock exchange. Pandit Pran Nath

presented an annual *Raga Cycle* series of performances and taught master classes while in residence. An archive was established to preserve the new work which was being created. And, amid all the activity, Young had the opportunity to perfect his major composition of the previous decade, *The Well-Tuned Piano*.

Severely affected by the greatly weakened Texas oil industry, Dia was compelled to cut back its activities. After enduring a painful and ultimately unsuccessful period of retrenchment, the Foundation was forced to liquidate its major assets and to sell 6 Harrison Street to real estate developers. Although the spring of 1985 brought the untimely demise of Young and Zazeela's first attempt at a permanent *Dream House*, the extraordinary and indisputable effect it had on their work cannot be dismissed. Here they created a six-year, continuous sound and light environment which enabled them, along with the benefit of new technologies, to develop the medium to a level and consistency which would have been otherwise unobtainable. Young refined the environmental conditions necessary to perfect his tunings for the *The Well-Tuned Piano* and used the opportunity to develop and expand the work through numerous performances and recording sessions. The distraction-free surroundings conformed perfectly to the artists' working habits and the prolific output which resulted drew critical acclaim — all ingredients which perfectly blended together at a decisive point in their respective and combined careers. The 6 Harrison Street period represented six years of continuous music — the real "theater of eternal music."

Young and Zazeela acted quickly to establish the MELA Foundation, Inc., a non-profit organization dedicated to the presentation and preservation of their work. From their busy Church Street loft, surrounded by Young's mountains of electronic equipment and Zazeela's towering theatrical lights, they continue to produce concerts and installations. At the time of this writing, they are putting the finishing touches on the cover design for the recording of *The Well-Tuned Piano*, Young's first commercial release in the U.S. Like the private tapes housed in Zazeela's hand-drawn boxes which they distributed in the 1960's, every detail, from recording to mastering, cover design to program notes, color of ink to stroke of calligraphy, reflects their personal attention and aesthetic.

What's in the future? Given Young's attraction to recordings, probably more releases like this one. Zazeela has developed a new genre of light sculptures. Both will undoubtedly do more and more solo singing of ragas, continuing their studies with Pandit Pran Nath. New synthesizers in their loft bode of new and complex configurations of sine wave tones. Young speaks of an interest in more performances of his notated works and even in composing an orchestral work.

Questioning the Answers

What about posterity? La Monte Young never considers musical composition to be a vocation and relies on inspiration to be the stimulus for a new work; he accepts commissions only if given complete artistic freedom. Although Young takes great pains to produce a meaningful concert setting for his performances, he never composes or performs with the intention of reaching or pleasing a specific audience. Throughout his career he has insisted on recording every performance and many times simply recorded rehearsal sessions as an alternative to presenting a live concert. As a result, he has compiled a massive archive of tape recordings which are carefully organized and fully catalogued. Like Glenn Gould, he feels that only recordings can adequately document a performance. Posterity is very important indeed.

Is his music elusive? One could easily say that Young's desire to control distribution and performances, his reactions against commercialism, and his self-imposed isolation have led to a general lack of public exposure to his works. Undoubtedly these factors have some effect. But even more, La Monte Young's music does not fit into any one popularly defined category. Although recognized as the founder of minimalism, Young has not pursued a career as a "mainstream" minimalist composer. Instead, he prefers to explore the nature of sound by presenting perfect tunings in extended durations. While his works often demonstrate a reaction against complexity, their performance demands extreme control and intensity of purpose. With the possible exception of *The Well-Tuned Piano*, emotionalism and form are not developed within the Western traditions of climax and directionality. His standards of perfection in tuning exceed normal conventions — so much, in fact, that the audience must develop new approaches to listening; that is, to develop a listening technique which

focuses on the sound of harmonics, thus allowing the listener to perceive their function in the overall form and structure of the composition.

Purist or eclectic? Classic or myth? All of Young's endeavors: jazz, sound and light environments, The Theatre of Eternal Music, just intonation, raga singing, and *The Well-Tuned Piano*, are the result of his uncompromising compulsion to create works which transport the listener to a new level of musical experience. The individual works are all part of a single compositional focus — a grand plan that represents the essence of Young's artistic vision. As each composition flows organically into the next, they perfect and expand on the ideas previously presented. Taken together, his works combine naturally to form an entity larger and more powerful than the sum of the components — La Monte Young's "life-work."

Purist and classic. La Monte Young's creative efforts expand the traditional boundaries of Western composition. His influences will continue to stimulate the absorption of experimental ideas into the mainstream of cultural life while opening a myriad of creative doors for generations of composers.

Copyright © 1987 David Farneth

Writings and Interviews

- Kostelanetz, Richard. *The Theatre of Mixed Means*. New York: Dial, 1968.
 Pelinski, Ramon. "Upon Hearing a Performance of *The Well-Tuned Piano*: An Interview with La Monte Young and Marian Zazeela," *Parachute* 19 (1980): 4.
 Reinhard, Johnny. "A Conversation with La Monte Young and Marian Zazeela," *Ear 7/5* (1982-83): 4.
 Young, La Monte, and Zazeela, Marian. *Selected Writings*. Munich: Friedrich, 1969.

Bibliography

- Cardew, Cornelius. "One Sound: La Monte Young," *Musical Times* 11 (1966): 259.
 Gena, Peter. "Freedom in Experimental Music: The New York Revolution," *Tri-Quarterly* 52 (1981): 223.
 Griffiths, Paul. *Modern Music: The Avant-garde Since 1945*. New York, G. Braziller: 1981.
 Hitchcock, H. Wiley. "Current Chronicle," *Musical Quarterly* 51 (1965): 538.
 McCardell, Charles. "Sound Instincts: La Monte Young & His Break-through Music," *Washington Post* (15 October 1985): E7.
 Mertins, Wim. *American Minimal Music*. London: Kahn & Averill: 1983.
 Nyman, Michael. "Against Intellectual Complexity in Music," *October* 13 (1980): 82.

- . *Experimental Music: Cage and Beyond*. New York, Schirmer: 1974.
 Palmer, Robert. "A Father Figure for the Avant-garde," *The Atlantic* (May 1981): 48.
 ———. "La Monte Young: Lost in the Drone Zone," *Rolling Stone* (13 February 1975): 24.
 ———. "Get Ready for the Music of Harmonics," *New York Times* (17 July 1983): C17.
 Rockwell, John. "Boulez and Young: Enormous Gulf or Unwitting Allies?," *Los Angeles Times* (13 February 1972): 38.
 Rosenbaum, Ron. "Eternal Music in a Dreamhouse Barn," *Village Voice* (12 February 1970): 5.
 Smith, David. "Following a Straight Line: La Monte Young," *Contact* 18 (1977-78): 4.
 Terry, Ken. "La Monte Young: Avant-garde Visionary: Composer and Pianist," *Contemporary Keyboard* 6/8 (1980): 12.
 Wolf, Daniel J. "Living and Listening in Real Time," *Interval* (1982-83): Winter, 14; (1983): Autumn, 27.

Works

- Rondo* (c1953), piano
Scherzo (c1953), piano
Annod (1954), dance band
Wind Quintet (1954)
Variations (1955), string quartet
Fugue (c1956), violin, viola, cello
Study (c1956), violin, viola
Op. 4 (1956), brass, percussion
Five Small Pieces for String Quartet (1956)
Canon (1957), any two instruments
Fugue in a minor (1957), any four instruments
Fugue in c minor (1957), organ or harpsichord
Fugue in eb minor (1957), unspecified instruments
Fugue in f minor (1957), two pianos
Prelude (1957), piano
Variations for alto flute, bassoon, harp and string trio (1957)
for Brass (1957), brass octet
Trio for Strings (1958), violin, viola, cello
for Guitar (1958), guitar
Sarabande (1959), any instruments
Studies I, II, and III (1959), piano
Vision (1959), unspecified instruments
 [Untitled] (1959-60), live friction sounds
 [Untitled] (1959-62), jazz-drone improvisations
Poem for Tables, Chairs, Benches, etc. (1960), unspecified instruments
2 sounds (1960), recorded friction sounds
Compositions 1960 Nos. 2-7, 9, 10, 13, 15 (1960), performance pieces
Piano Pieces for David Tudor Nos. 1-3 (1960), performance pieces
Invisible Poem Sent to Terry Jennings (1960), performance piece
Piano Pieces for Terry Riley Nos. 1-2 (1960), performance pieces
Target for Jasper Johns (1960), piano
arabic numeral (any integer) to H.F. (1960), piano or gong
Compositions 1961 Nos. 1-29 (1961), performance pieces
Response to Henry Flynt Work Such That No One Knows What's Going On (c1962)
Death Chant (1962), male voices and carillon
 [Improvisations] (1962-64), soprano saxophone, vocal drones, various instruments. Realizations include: *Bb Dorian Blues*, *The Overday*, *Early Tuesday Morning Blues*, and *Sunday Morning Blues*.
The Four Dreams of China (1962), unspecified instruments
The Second Dream of The High-Tension Line Stepdown Transformer from *The Four Dreams of China (The Harmonic Version)* (1962), unspecified instruments
Studies in the Bowed Disc (1963), gong
Pre-Tortoise Dream Music (1964), soprano saxophone, soprano saxophone, vocal drone, violin, viola

The Tortoise, His Dreams and Journeys (1964-present), voices, various instruments, sine waves. Realizations include: *Prelude to the Tortoise*; *The Tortoise Droning Selected Pitches from The Holy Numbers for The Two Black Tigers*, *The Green Tiger and The Hermit*; *The Tortoise Recalling the Drone of The Holy Numbers as they were Revealed in The Dreams of The Whirlwind and The Obsidian Gong and Illuminated by The Sawmill, The Green Sawtooth Ocelot and The High-Tension Line Stepdown Transformer*.

The Well-Tuned Piano (1964-present) Each realization is a separately titled and independent composition. Over 50 realizations to date. World premiere: Rome 1974. American Premiere: New York 1975.

Composition 1965 \$50 (1965), performance piece
Map of 49's Dream The Two Systems of Eleven Sets of Galactic Intervals Ornamental Lightyears Tracery (1966-present), voices, various instruments, sine waves

Scores to Andy Warhol Films (1966), tape

The Two Systems of Eleven Categories (1966-present), theory work
Chords from The Tortoise, His Dreams and Journeys (1967-present), sine waves. Realizations include *Intervals and Triads from Map of 49's Dream The Two Systems of Eleven Sets of Galactic Intervals Ornamental Lightyears Tracery* (1967), sound environment

Robert C. Scull Commission (1967), sine waves

Claes and Patty Oldenburg Commission (1967), sine waves

Betty Freeman Commission (1967), sound and light box & sound environment

Drift Studies (1967-present), sine waves

for Guitar (Just Intonation Version) (1978), guitar

The Subsequent Dreams of China (1980), unspecified instruments

The Gilbert B. Silverman Commission to Write, in Ten Words or Less, a Complete History of Fluxus Including Philosophy, Attitudes, Influences, Purposes (1981)

Chords from The Well-Tuned Piano (1981-present), sound environments
 Includes: *The Opening Chord* (1981); *The Magic Chord* (1984); *The Magic Opening Chord* (1984)

Trio for Strings (1983) Versions for string quartet, string orchestra, and violin, viola, cello, bass.

Trio for Strings, trio basso version (1984), viola, cello, bass

Trio for Strings Postlude from The Subsequent Dreams of China (c1984), strings

The Melodic Version (1984) of *The Second Dream of The High-Tension Line Stepdown Transformer* from *The Four Dreams of China* (1962) unspecified instruments

The Big Dream (1984), sound environment

Orchestral Dreams (1985), orchestra



Marian Zazeela playing tambura for Radio France, 1982. Palais des Sports, Metz, France. Photo: Michael S. H. Koh. Copyright © Photo Contact 1982.



La Monte Young singing *Raga Tilang* for Radio France, 1982. Palais des Sports, Metz, France. Photo: Michael S. H. Koh. Copyright © Photo Contact 1982.

Credits

Performed by La Monte Young in a setting of *The Magenta Lights* by Marian Zazeela.

Recorded live at the last 6 Harrison Street *Dream House* concert of *The Well-Tuned Piano*, New York City, October 25, 1981. Presented by the Dia Art Foundation.

Piano: Dia Custom Bösendorfer Imperial Grand
Tuning Technician and Assistant to the Composer: Michael Harrison
Piano Technician: Bob Bielecki.

Produced by La Monte Young and Marian Zazeela.
Associate Producer: David Farneth

All recording and sound processing supervised by La Monte Young.
Recorded by Bob Bielecki, assisted by Gerald Lindahl and Robert Adler.
Mixed, processed, and submastered by Bob Bielecki.

Mastered at Masterdisk, New York: Scott Hull, Digital Mastering and Processing; Alan Moy, Direct to Metal Mastering; Bob Ludwig, Technical Supervision.

Cover photo: *The Magenta Lights* by Marian Zazeela, an installation at the 6 Harrison Street *Dream House*, New York City, with La Monte Young at the Dia Custom Bösendorfer Imperial Grand. Photo: John Cliett. Copyright © Marian Zazeela 1981

Cover Copyright © 1987 La Monte Young and Marian Zazeela
Program booklet Copyright © 1987 La Monte Young and Marian Zazeela
Cover, calligraphy and package design: Marian Zazeela
Design production: David Garland
Production assistance: Terry Youk

©La Monte Young
Composed by La Monte Young. Published by La Monte Young dba Just Eternal Music, exclusive administration by Editions Farneth International (P.O. Box 688, Ansonia Station, New York, NY 10023), BMI.

Special thanks to: Heiner & Philippa Friedrich, Jonathan F.P. Rose, Diana Calthorpe, William M. Borchard, Kurt Munkacsí, Dia Art Foundation, and the dedicated staff of the 6 Harrison Street *Dream House* Project.

For more information about the publications and performances of La Monte Young and Marian Zazeela please write MELA Foundation, Inc., 275 Church Street, New York, NY 10013.

For more information about this and other Gramavision records please write Gramavision Records, 260 West Broadway, New York, NY 10013.

Unauthorized reproduction of this recording is prohibited by Federal law and subject to criminal prosecution.

Distributed by Polygram, Inc. in the U.S.A.
Long play records manufactured by Europadisk, U.S.
Available on lp discs, high quality chromium dioxide cassettes and compact discs.

Back Cover: Marian Zazeela, *The Magenta Lights*, 1981; Environmental light sculpture installation, 6 Harrison Street *Dream House*, New York City; detail 23' x 23' x 12'; mixed media: aluminum mobiles, fresnel lamps, colored glass filters, electronic dimmers. Photo: John Cliett. Copyright © Marian Zazeela 1987.

GRAMAVISION

5 CDs

ADD

The Well-Tuned Piano
81 X 25
6:17:50 - 11:18:59 PM NYC

The 5-hour continuous concert

28 page program booklet enclosed with photographs, timed score of theme titles and notes by Terry Riley, David Farneth, Daniel Wolf, Marian Zazeela and La Monte Young.

Cover photo: *The Magenta Lights* by Marian Zazeela, an installation at the 6 Harrison Street *Dream House*, New York City, with La Monte Young at the Dia Custom Bösendorfer Imperial Grand. Photo: John Cliett.

Cover and package design: Marian Zazeela
Design production: David Garland
Production assistance: Terry Youk

Composed by La Monte Young.
Performed by La Monte Young in a setting of *The Magenta Lights* by Marian Zazeela.

Recorded live at the last 6 Harrison Street *Dream House* concert of *The Well-Tuned Piano*, New York City, October 25, 1981, presented by Dia Art Foundation.

Piano: Dia Custom Bösendorfer Imperial Grand
Tuning: Composed by La Monte Young in the system of just intonation.

Tuning Technician: Michael Harrison
Piano Technician: Bob Bielecki

Produced by La Monte Young and Marian Zazeela
Associate Producer: David Farneth

All recording and sound processing supervised by La Monte Young
Recorded by Gerald Lindahl, assisted by Bob Bielecki and Robert Adler. Mixed, processed, and submastered by Bob Bielecki.

Mastered at Masterdisk, New York.
Technical Supervision: Bob Ludwig
Digital Mastering and Processing: Scott Hull



5 1518-8701-2 8

© 1987 La Monte Young & Marian Zazeela. © 1987 La Monte Young.
Published by La Monte Young dba Just Eternal Music, exclusive administration Editions Farneth International, BMI.
Unauthorized reproduction of this recording is prohibited by Federal law and subject to criminal prosecution.
Available on LP discs, high quality chromium dioxide cassettes and compact discs.
Distributed by Polygram, Inc. in the U.S.A.

GRAMAVISION