Lou Harrison (1917–2003) believed fervently in music’s power to create cultural bridges. To this end he applied his prodigious skills and creative energies to creating syncretic works that link diverse musical languages. Faulted at times for his eclecticism, Harrison responded with a vibrant defense of hybridity, cultivating a musical multiculturalism long before that term—or even the concept—held the currency it now enjoys.

Harrison prided himself on being a bit of a renegade, avoiding the esoteric academic atmosphere that so many of his contemporaries found welcoming. Instead of addressing a limited, intellectually-oriented audience, he reached out to the average concertgoer, seeking beauty through expansive melody and captivating rhythms. “Melody is the audience’s take-home pay,” he’d quip; and indeed, his slow movements typically feature undulating, and frankly sensuous, melodic expression. Harrison’s interest in world musics led him to prioritize melody and rhythm over harmony—which is not to imply that he shunned the harmonic component of his works, but to emphasize that his harmonic choices were often stimulated by melodic considerations. Harrison’s harmonies are often contrapuntally derived: they arise from the creative interweaving of coherent melodies.

Harrison’s major contributions to twentieth-century American music lie in three main areas: (1) the development of the percussion ensemble as a viable performance medium; (2) the linkage of Asian and Western musical styles; and (3) the exploration of just intonation tuning systems. All three are represented in the works on this disc.

Lou Harrison was born in Portland, Oregon, but moved to northern California at the age of nine. Between that relocation and his graduation from high school, his family moved almost annually from one town to another in the San Francisco region, precluding the possibility of his building long-term friendships. He took refuge instead in books; to the end of his life he always had one or two on his reading desk—ranging from philosophy to geography to physics to literature, in addition, of course, to music.

In January 1935 Harrison began college at San Francisco State, but completed only two years there. He took an interest in early music (playing recorder and harpsichord and singing in a madrigal group) and soon became acquainted with Henry Cowell, who taught a class in the “Music of the World’s Peoples” at the San Francisco extension of the University of California. Harrison began private composition lessons with Cowell, who became one of the strongest influences in his life. Cowell encouraged Harrison’s interest in Asian musics and urged him to explore new instrumental resources. Harrison soon found himself frequenting Chinese opera productions and searching through hardware stores, nurseries, and junkyards for resonant materials that could function as musical instruments. He also developed connections with modern dancers, who welcomed innovative percussion music as accompaniment for their choreographies.

During his seven years in San Francisco (1935–42), Harrison created a host of percussion ensemble works, some ephemeral, others long-lasting, which he presented in public dance recitals and concerts. One of the last pieces he wrote before leaving San Francisco was the *Suite for Percussion* included on the present disc. Completed on June 2, 1942, the Suite was not performed until February 28, 1963, when Paul Price conducted his Manhattan Percussion Ensemble at the Museum of Modern Art in New York. This quintet includes found instruments such as automobile brake drums, clock coils, and galvanized washtubs. The brake drums figure particularly prominently in the first and third movements. Harrison often called for families of such instruments—randomly pitched—which allowed him to create melodic motives with recognizable contours. In this Suite players 1–3 each perform on three variously pitched brake drums. Prewar drums, which were made from spun steel, were particularly resonant. (After the Second World War, the automobile industry turned to cast iron, which was more machinable, but less attractive acoustically.) The tone quality of the brake drums is surprisingly dulcet, and they create shimmering melodies that highlight the opening section of the Suite. In the middle of the first movement (1:18ff.), Harrison features the washtub, small bells, triangles, and clock coils. This section is followed by a return to the opening, creating an ABA form. Sharp contrasts between loud and soft
passages may also reflect the influence of the Balinese gamelan (an ensemble composed primarily of pitched percussion), which Harrison first heard at the Golden Gate International Exposition on Treasure Island in 1939.

The second movement of the Suite shows Harrison’s commitment to melody, even in a percussion work. It is essentially a lyric aria for the temple blocks, which are accompanied first by gongs and a thunder sheet (a metal sheet that is shaken or struck) and later by sharp strokes with wooden sticks on the edge of the washtub (1:22ff.). The finale opens with the bass drum and again features shimmering motives in the brake drums, here in irregular cross-rhythms. The washtub joins in near the movement’s end (1:45ff.)

In 1942 Harrison moved to Los Angeles, where he worked with dancers and studied with Arnold Schoenberg. The following year he moved again, this time to New York. East Coast life proved extremely difficult, however: Harrison’s poverty was oppressive and he found the noise of the city nearly unbearable. Although he achieved notable success (his works were performed and reviewed, he became a critic for the New York Herald-Tribune and other publications, and he conducted the premiere of Charles Ives’s Third Symphony, which won the Pulitzer Prize), his emotional stability was severely challenged. In May 1947 he suffered a severe nervous breakdown, for which he was hospitalized for nearly nine months.

Four years later Harrison moved to Black Mountain College in North Carolina, where he taught and composed for two years. The salutary rural atmosphere and the stimulation of college life fostered his recovery and ushered in one of the most productive periods of his life. (The most important work from this time was the opera Rapunzel.) In 1953 he returned to California, settling in the then rural community of Aptos, just south of Santa Cruz. He lived on the same block for the rest of his life.

At the time of his breakdown, some of Harrison’s colleagues predicted the end of his composing career. Instead, he used the crisis to re-evaluate his musical language, which had been marked by dissonant counterpoint in imitation of Schoenberg and Carl Ruggles. Harrison now turned his attention toward melodicism, diatonicism, and pentatonicism—and he developed an intense interest in pure tuning systems, all hallmarks of his compositions after 1950.

Although the quiet environment of Aptos helped Harrison regain emotional stability, it also isolated him from the centers of new music activity. During his early years there he struggled to earn a living (working as a forest firefighter and an animal nurse), which left little time for composition. In 1961, however, he was invited to the East-West Music Encounter in Tokyo, a stimulating meeting of composers from the United States and various Asian countries. Supported by a Rockefeller Grant, Harrison visited Asia for the first time, traveling to Japan on a freighter and then spending several weeks in Korea. He returned the following year, at which time he also studied in Taiwan.

Harrison composed the Concerto in Slendro between March 25 and April 6, 1961, on the freighter to Japan. The work arose from the intersection of his various interests at the time: just intonation, Asian musics, and percussion. During the trip, he conducted a systematic study of pentatonic modes, calculating more than forty possible five-tone divisions of the octave using whole-number ratios. (He details these pentatonics in his Music Primer, 1971). “Five-tone modes are spread planet-wide,” he wrote, constituting “every human’s most important tonal heritage.” He chose what he calls the “prime pentatonic . . . practically ‘The Human Song’” for the outer movements of the Concerto in Slendro (B C# D# F# G#: whole step–whole step–minor third–whole step–minor third). In New York Harrison had read articles by Colin McPhee on gamelan music, which uses two modal types: sléndro, an anhemitonic pentatonic (i.e., without half steps), and pélog, a mode with seven tones including semitones, though only five are used in any single work. “Since Indonesians use the term ‘Sléndro’ to mean ‘anhemitonic pentatonicism’ and that term [is] shorter and lovelier,” Harrison wrote, “I called the piece

2 Ibid., 112
‘Concerto in Slendro.’” For the central slow movement, he selected a pentatonic with a minor third above the tonal center: E G A B D E. In both scales, the intervals are to be tuned in just intonation; Harrison specifies pure minor thirds (6:5) and two sizes of whole tones (9:8 and 10:9). The solo violin in this work is accompanied by two tack-pianos (a piano in which tacks have been inserted in the hammer felts), a celesta, and randomly pitched percussion (two washtubs, two garbage cans, six gongs, three ranch triangles, and three orchestral triangles). The Concerto often features a heterophonic texture: the violinist plays an elaborated version of a melody sounding simultaneously in the keyboards. This layering of simpler and more complex versions of the same melody—often called polyphonic stratification—is a fundamental characteristic of gamelan music. The resulting melodic complexity had arrested Harrison’s attention from the first moment he heard gamelan music in San Francisco twenty-two years earlier. In addition, he found a way to imitate the gamelan’s characteristic timbre by combining the tack-piano and celesta. Despite its Indonesian influences, the concerto also draws on Western models: its form is that of a Vivaldi concerto.

Although Harrison had been attracted to gamelan music since 1939, he had no opportunity to study the Indonesian instruments themselves until the late 1970s. In the summer of 1975, he was invited to teach a course on tuning at the Center for World Music in Berkeley. At the same institute K.R.T. Wasitodiningrat (a.k.a. Pak Cokro) taught Javanese gamelan. Fascinated, Harrison decided to begin formal study of gamelan instruments with Pak Cokro’s assistant, Jody Diamond. The following year, Pak Cokro himself invited Harrison to compose works for the Indonesian ensemble. In 1976–77 Harrison wrote eight compositions for Javanese gamelan; the next year he combined the Indonesian ensemble with Western solo instruments to create a type of cross-cultural concerto. Main Bersama-sama features French horn and gamelan; the Threnody for Carlos Chávez, viola and gamelan. Just as percussion provided the accompaniment for the solo violin in the Concerto in Slendro, here the gamelan serves as the backdrop for the featured soloist. In addition, Threnody reflects Harrison’s study of pre-tonal Western music. The sophisticated notation system developed in fourteenth-century Europe admitted various combinations of duple and triple meter on three metric levels. In Threnody, Harrison extended this concept to eight metric levels, all triple. Since gamelan music is always duple, he thereby created an intercultural musical system as well.

The third work from 1978, Serenade for Betty Freeman and Franco Assetto, is also a type of concerto, but the solo instrument is the suling, an Indonesian vertical flute. This work honors music patron Betty Freeman on the occasion of her wedding; Harrison himself plays the suling. Every set of gamelan instruments is given a name: the ensemble on this recording is Sekar Kembar (“Twin Flower”); among the eleven players are Harrison and his partner, William Colvig.

The latest composition on this disc, the String Quartet Set, was written in 1978–79. Like most of Harrison’s large-scale works, this piece unites diverse influences. The first and third movements evoke medieval musical forms, an interest that stemmed from Harrison’s college years and resurfaced after his nervous breakdown. Movement 1 is a set of variations on the “Song of Palestine” by the thirteenth-century minnesinger Walther von der Vogelweide. Harrison discovered the tune in an anthology of early music by Archibald Davison and Willi Apel and used it as the basis for four variations, followed by an improvisatory-sounding coda featuring the viola (4:10ff.). To suggest a medieval sound Harrison emphasized open fourths and fifths, as in the theme (in bar form, AAB), where the cello echoes the principal notes of the viola’s melody on off-beats, creating a shadow melody. The most dramatic moment of the opening movement occurs at the beginning of the fourth variation (3:19) with the fortissimo entry of the cello, accompanying the melody in a set of open fifths played just ahead of the beat. Since the viola plays the same pitches on the beat (thus a fraction of a second later), the effect is a composite viola-cello breaking chords over a two-octave range.

One can only speculate on whether the quartet’s second movement, “Plaint,” is an autobiographical

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3 Ibid., 111.
commentary on Harrison’s own troubled past. Poignant and evocative recitatives in the cello and first violin open the movement, and the central section is marked by sobbing double syncopations in the viola and second violin. Again one is struck by Harrison’s overwhelming devotion to melody and rhythm.

The third movement is an estampie, a whirling medieval dance consisting of a series of repeated sections with alternately open and closed endings. This movement contains nine such sections, each lasting 10-20 seconds, as shown below (timings mark the beginning of each section):

\[
\begin{align*}
A & \quad A' & \quad B & \quad B' & \quad C & \quad C' & \quad D & \quad D' & \quad E & \quad E' \\
0:00 & \quad 0:10 & \quad 0:19 & \quad 0:33 & \quad 0:45 & \quad 0:54 & \quad 1:02 & \quad 1:20 & \quad 1:39 & \quad 1:49 \\
F & \quad F' & \quad G & \quad G' & \quad H & \quad H' & \quad I & \quad I'
\end{align*}
\]

\[
\begin{align*}
F & \quad 2:03 & \quad 2:18 & \quad 2:36 & \quad 2:54 & \quad 3:14 & \quad 3:25 & \quad 3:35 & \quad 3:44
\end{align*}
\]

The movement is basically monophonic, with exuberant melodies in the violin and viola and a drone in the second violin. The cellist acts as percussionist, banging with the fingers on the body of the instrument.

In the fourth movement Harrison calls to mind the French baroque: it is a double rondeau with a da capo. The opening section, in E minor, introduces a theme (A) that recurs after two intermediary couplets (A B A C A). The tonality shifts to E major for the second rondeau (2:42ff.), which uses the same form. The first rondeau then returns with some variation. Repetitions of the A theme are often ornamented in typical baroque style, and Harrison ends several sections with traditional eighteenth-century cadences.

The quartet ends with an usul, a term that refers to repeating rhythmic patterns in Turkish music. As in the estampie, the cellist acts as percussionist, beating the rhythmic ostinato while the other players spin out unison melodies.

* * * *

The influences manifest in the works on this disc remained with Harrison for the rest of his career. He ultimately composed more than three dozen gamelan pieces and the estampie became one of his favorite forms (he used it in a dozen works, ranging from solo keyboard to full orchestra). Nor did his advocacy of just intonation systems diminish: he called for pure intervals in works in all genres. But the most distinctive characteristic of Harrison’s music lies in its inherent plurality. He was drawn to community, both in performance groups such as the gamelan and the percussion ensemble, and in the compositions themselves, which unite elements from various times and places. Harrison’s originality lay in the way he creatively combined these elements to produce novel syntheses. His fervent advocacy of hybridity led to a type of transthetic music that truly foreshadowed the post-modern celebration of diversity.

—Leta Miller

Leta Miller is a professor of music at the University of California, Santa Cruz. She is the author of two books on Lou Harrison, as well as the article on him in the New Grove Dictionary of Music, 2nd edition. Miller also edited a collection of Harrison’s chamber and keyboard works in the series Music in the United States of America, v. 8.

Composer’s notes

Concerto in Slendro

The Concerto in Slendro mostly was composed in 1961 aboard the S.S. New York en route to Japan. It is filled with my eager anticipation of a first taste of the beauty and bustle of Asia. The title derives from the fine Indonesian theoretical term denoting any five-tone mode in which the “seconds” are, roughly, “major” (or large) and the “thirds” are “minor” (or small). A complimentary term “Pelog” refers to the opposite kind of mode—“seconds” (small) and “thirds” (wide). This concerto uses two Slendro type modes only: the “Prime Pentatonic” (if you will)
and its associated “minor.”

“prime”

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\[ \text{prime} \]
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“minor”

These two modes are perhaps the most common and generally loved of all man’s modes—the first is practically the “Human Song.” In this recording, the two modes are heard in correct “just intonation” on a general basis 25/24 below A440, exactly as I intended.

Instrumentation of the *Concerto in Slendro* is for specifically tuned celesta and two “tack pianos” similarly tuned, with two percussionists playing six triangles, six gongs, and four galvanized iron garbage cans (an American metal drum). In the slow movement, two keyboard players use claves and iron pipes, reverting to their keyboards for the final movement.

This work is dedicated to my friend Richard Dee, and this recording was made by friends, too.

**Three pieces for Gamelan Orchestra and Soloists**

*Main Bersama-sama* (“Playing together”) was composed at the request of my friend and colleague Dr. William George of San Jose State University. French horn soloist Scott L. Hartman studied with Dr. George. For this recording, he set the valves of his instrument into a special pattern which produces the tuning of the gamelan.

*Threnody for Carlos Chávez*, my second piece dedicated to this great composer, is composed as an eight-layered European medieval rhythmic mode over a single “Maxima” (Gongan) or entirely in triple (or perfectum) divisions. (An eight-layered duple division does in fact produce the Javanese musical form Ketawang . . . a conjunction of musical theories from widely separated cultures.) I waited to hear and work this piece several times before deciding that it was worthy of the memory of Carlos Chávez.

*Serenade for Betty Freeman and Franco Assetto* (like the *Main Bersama-sama*) is in a lyric style normal to the Gamelan Degung of West Java and here evolved out of its suling melody. The composer plays the suling.

The Gamelan Sekar Kembar (Paired Flowers or Matched Melodies) is a bronze Gamelan Degung imported from Bandung, West Java (Sunda) where it was made. Iron jengglong replace the originals on this disc, and the tuning of the orchestra is $\frac{16}{15}$, $\frac{9}{8}$, $\frac{81}{64}$, $\frac{256}{243}$, $\frac{5}{4}$. The gamelan is owned by myself and William Colvig.

**String Quartet Set**

*String Quartet Set* was commissioned by Robert Aitken, the New Music Concerts of Toronto, and the Canada Council. Its premiere was given in Toronto by the Orford Quartet. It is in five sections:

1. Variations on Walther von der Vogelweide’s *Nu alrest leb ich mir weder*. These variations were begun in the ’40s when I first encountered the Minnesinger’s lovely melody. Walther lived from 1107 to 1128 and the variations are set in European-style quintal counterpoint, also medieval in origin.

2. Plaint. We all complain, at least a little.
3. Estampie. A medieval peasant’s stamping dance, roughneck, and Brueghelish.

4. Rondeaux. This homage to Dandrieu and the French Baroque is my only fully “harmonic” piece in the European style.

5. Usul (Turkish for a rhythmic mode). As eighteenth-century European composers wrote Turkish marches imitating the Janissary bands, I have here written in the gentle melodic style of the old Turkish Court.

**Suite For Percussion**

Before leaving San Francisco, I composed several pieces which, like this *Suite for Percussion*, explore such things as “metrical modulation” (as it later came to be known), unison melodies for groups of instruments having only relative pitches, and the junk instruments to which Henry Cowell had guided us. This Suite even contains a kind of aria (of all things) for temple blocks. Automobile brake drums have changed and are no longer fine bells, and I rue the day when plastics will have swept from the market the fine galvanized iron tubs and garbage pails which are our only commonly available metal drums.

—Lou Harrison

**SELECTED DISCOGRAPHY**

*Concerto for Pipa with String Orchestra.* Wu Man, pipa; The New Professionals Orchestra, London, Rebecca Miller conducting. Mode Records 140.

*Concerto for Violin with Percussion Orchestra.* J. Lower, violin; D. Colson, percussion; Continuum Percussion Quartet, R. Brown conducting. New World Records 80382-2.


*Gamelan Music.* Music Masters 67091.


*La Koro Sutro.* C. Brett, countertenor; Berkeley Chorus, American Gamelan, American Gamelan Chorus, John Bergamo conducting. New Albion NA 15.

*Pacifika Rondo.* Oakland Youth Orchestra, R. Hughes conducting. Phoenix Records 118.

*The Perilous Chapel.* S. Harrison, cello; B. Chaffe, flute; D. Rihot, harp; W. Winant, percussion; San Francisco Contemporary Music Players, Stephen L. Mosko conducting. New Albion NA 55.


*Rapunzel.* L. McMurtry, mezzo-soprano; P. Maginnis, soprano; J. Duykers, baritone; Ensemble Parallèle, Nicole Paiement conducting. New Albion NA 93.

*Rhymes with Silver.* D. Abel, violin; J. Steinberg, piano; W. Winant, percussion; B. Simon, viola; J. Jeanrenaud, cello. New Albion NA 110.

**SELECTED BIBLIOGRAPHY**


Gamelan Sekar Kembar:

The Manhattan Percussion Ensemble:
Richard Allen, bass drum; Norman Bergen, celesta-piano; Barbara Bondelid, harp; Wayne Brotherton, suspended cymbals, washtub, thundersheets; Edward Burnham, snare drum, brake drums, bells; Fred Edkler, timpani; Richard Fitz, vibraphone, brake drum, triangles, temple blocks; Thomas Maguire, wood blocks; Alan Silverman, cymbals, brake drums, clockcoils; Howard Zwickler, xylophone, bass drum, tam-tam, gongs

From Desto Stereo DC-7144
Concerto In Slendro: Recorded by Richard Beggs, Vincent Wong, and Tony Gnazzo in 1972. Published by C.F. Peters (BMI).

From CRI SD 455
Main Bersama-Sama, Threnody and Serenade: Recorded by George and Jennifer Craig in San Francisco, California, in 1979. Published by the American Gamelan Institute.
String Quartet Set: Produced by Carter Harman. Recorded by Wallace Buck at Fantasy Studios, San Francisco, California, on December 17, 1980. Edited by George Craig. Published by Peer International (BMI). Original recordings were made possible by a grant from Betty Freeman.

From CRI SD 252
Suite For Percussion: Recorded by Robert E. Blake at Steinway Concert Hall, NYC, on January 28, 1965. Original recording was made possible by grants from the American Academy and Institute of Arts and Letters, and the American Composers Alliance.
Published by Music for Percussion, Inc. (Colla Voce Music) (BMI).

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LOU HARRISON (1917–2003)
CHAMBER AND GAMELAN WORKS
80643-2

Concerto in Slendro (1961) 9:37
1. I. Allegro 3:06
2. II. Molto adagio 4:19
3. III. Allegro; Molto vigoroso 2:13
Daniel Kobialka, violin; Machiko Kobialka, tack piano I; James Barbagallo, tack piano II; Patricia Jennerjohn, celesta; Don Marconi, percussion; Jerome Neff, percussion; Robert Hughes, conductor

4. Main Bersama-Sama (1978) 7:21
Scott L. Hartman, French horn; Gamelan Sekar Kembar

5. Threnody for Carlos Chávez (1979) 7:06
Susan Bates, violin; Gamelan Sekar Kembar

Lou Harrison, suling player; Gamelan Sekar Kembar

String Quartet Set (1978–9) 26:27
7. I. Variations 5:17
8. II. Plaint 4:12
9. III. Estampie 3:57
10. IV. Rondeaux 8:17
11. V. Usul 4:34
Kronos Quartet: David Harrington, violin; John Sherba, violin; Hank Dutt, viola; Joan Jeanrenaud, cello

Suite for Percussion (1942) 9:38
12. I. Moderato 3:34
13. II. Slow 3:04
14. III. Recitative; Moderato allegro 2:43
The Manhattan Percussion Ensemble; Paul Price, conductor

This recording was originally issued as CRI CD 613.

Total time: 66:14