

Instrument setup used by
Gamelan Son of Lion for

Gamelan NEA

by Barbara Benary
Philip Corner
Daniel Goode
Peter Griggs

May 1982

Gamelan NEA and Composing Together.

This piece was written for a commission awarded to the ensemble by the National Endowment for the Arts, after which we named it. It was a joint commissioning project in fact, with two other new music gamelan ensembles, each of which was to choose a composer, and then share performances of each others' new works during the 1982 season.

Unwilling to decide which among us in our collective was more worthy than another, we decided to split the commission four ways and create this interlocking piece. The four composers worked independently of each other, Griggs, Goode and Benary each creating short variations on their main idea, and Phil Corner uniting them through one piece which is in itself a sequence of developing fragments. The actual piecing together of all entire work was again a collective effort, with Iris Brooks and the other performers taking the key initiative. As Philip Corner had named a long sequence of his compositions for gamelan, "gamelan" (with a lower case g) followed by the name of what inspired it, we decided to follow suit in the naming of this piece.

Stylistically the piece follows themes the individual composers were pursuing during that period. Corner's pieces favored the extremes of very loud or very quiet, with the clanging of gongs carefully structured and unfolding over a lengthy period of time. Goode plays here with the sonic blurring of sound cluster. Griggs, whose music tends toward the meditative and melodic, uses a careful "mirror" structure. Benary, who also builds processes out of melody, uses the model of Javanese interlocking parts called "imbal" in another mirror-type structure.

Subsequently Gamelan NEA proved to be one of a number of exercises in collective composition. In 1980 we undertook the "Forty-Fives" project in which all the gamelan members were invited to create process pieces based on the mathematical fact that the digits 1 through 9 = 45. The most musically satisfying of the several resulting pieces was that by Jon Childs, which is published in Gamelan Son of Lion's 1987 scorebook "Process Composition for the Gamelan: Convergences and Permutations."

A second project was "Round Robin." Barbara Benary proposed this piece as a "form" - a score or set of instructions to generate a piece of music. Basically, over a period of weeks equal to the number of players in the ensemble, each person in turn is to generate a piece of music approximately one minute long. However no one is to plan their piece in advance or begin working on it out of turn, so that each segment added to the round robin is added with only the knowledge of what was added before. This poses the same dilemma as the classic Indian riddle "try not to think of a monkey." Our one realization of the piece by seven composers and non-composers in the group was performed in 1990.

Our most recent collective composition is "Nine-Eleven: A Memorial Suite" by Benary, David Demnitz, Daniel Goode, Laura Liben and David Simons. Less structured than "Round Robin," this piece began with a song Benary wrote after that disastrous event, with the other composers adding sections which either used variations that musical material or offered new and different themes. The suite was performed a number of times in 2001 and 2002. The score, in staff notation, is available through American Gamelan Institute.

B. Benary
2005

GAMELAN N.E.A.

The Form

Gamelan NEA takes the form of an interweaving of component sections written by four composers. The sections are sequenced and connected to produce a piece approximately 16 minutes long. The sections provided by the individual composers are referred to as follows:

Philip Corner: Hours
Daniel Goode: Tremolo
Peter Griggs: Spirals
Barbara Benary: Imbal

The four component pieces are presented separately in this score. For although each occurs in more than one place, it is easier to consider each as an entity for study purposes. Each composer has provided general instructions for his/her section, as well as scores or diagrams where appropriate. Following the separate pieces is an Overview which explains the way the sections are joined to produce the whole piece. Individual parts for Spirals and Imbal are added at the end.

In the structure of Gamelan NEA, the sounding of Hours serves as punctuation or interruptions between the other units of the piece. The other units use the keyboard instruments and share the use of certain musical ideas:

- melodic sections with repeated cycles and ostinatos
- melodic modes taken from the combined pelog and slendro scales
- chords of (approximately) fifths to provide harmonic grounding in melodic sections
- parallel minor seconds or clusters of close intervals from the combined pelog and slendro scales to provide a gamelan version of atonality.

Instrumentation

An even number of players is required, preferably ten but conceivably more.

An important element in the piece is the contrast between the sound of the keyed instruments and that of the knobbed gongs and other resonant metal instruments which may be used in Hours.

Keyed instruments generally operate in pairs, one slendro, one pelog. A separate player is required for each instrument. They are:

- pekings
 - sarons
 - demungs
 - slentems
- } one each in slendro and pelog
- another pair of sarons played as a double keyboard by one player in Spirals
 - optionally, another pair of sarons or demungs for the keygong and gong agung players to use during Tremolo
 - keygongs in the kempul range, pitches slendro 3 & 5; pelog 3 & 5.
 - Gong agung, preferably a knobbed gong to differentiate the timbre from keygongs in Imbal section. This may also be one of the instruments used in Hours.

Instruments used in Hours:

Resonant metal percussion. Should have a distinguishable fundamental pitch but be rich in overtones, etc. They should be compatible timbrally... but be a decided contrast to the rest of the gamelan. Preferable that their tuning be "out" of the rest.

There should be one of these for each player, and they should be capable of being played forcefully, covering a fairly wide register (but prefer a bias toward the low rather than the high) and more or less evenly distributed throughout.

Knobbed gongs are suitable for this purpose. Gamelan Son of Lion has used, for example, the following: four bronze knobbed gongs (Balinese), one iron knobbed gong (oil barrel), two flat brass gongs and a number of resonant brass bowls.

It is suggested that in setting up for performance, pairs of instruments playing Imbal should be next to each other or facing each other. Hanging gongs for Hours may be set around the perimeter within reach of the keyboard players. Those that are not near a gong may strike a smaller, portable instrument, such as a bell or bowl.

One of the peking players may also play the Embellishment part in Spirals if the saron pair is near.

Tuning

As Gamelan NEA was composed with the tuning of Gamelan Son of Lion in mind, it may be necessary to make certain substitutes to play the piece on other American gamelans.

In Son of Lion's tuning system, the common pitches between slendro and pelog are: sl. 6 = pel. 6 and sl. 5 = pel. 4. If the piece is to be played on instruments whose sl. 5 and pel. 4 are divergent enough to produce very altered harmonic effect, it is suggested that all pel. 4's be read as sl. 5's.

Also, in Son of Lion's tuning, sl. 3 is notably higher than pel. 3. In fact, the interval of sl. 1 to sl. 3 is nearly a perfect fourth, and sl. 3 to sl. 1 a fifth. It is harmonically desirable that a high slendro 3 be used. This may entail the use of a substitute key, a "slendro 4" such as several American gamelans have on hand.

A tuning chart for Son of Lion is provided below, although it is certainly possible to perform Gamelan NEA on other instruments with their own tunings, given the above considerations.

(demung octave)

slendro

- 1 C# -15¢
- 2 D# +30¢
- 3 F# -8¢
- 5 G# +20¢
- 6 B -40¢
- .
1 C# -10¢

pelog

- 1 D + 30¢
- 2 E - 3¢
- 3 F + 45¢
- 4 G# + 20¢
- 5 A + 47¢
- 6 B - 40¢
- 7 C + 35¢

HOURS --- Philip Corner

Notes on performance

Each gong or bell is to have its own fixed rate of pulsing speed derived from a scale of durations equating high with fast. and low with slow.

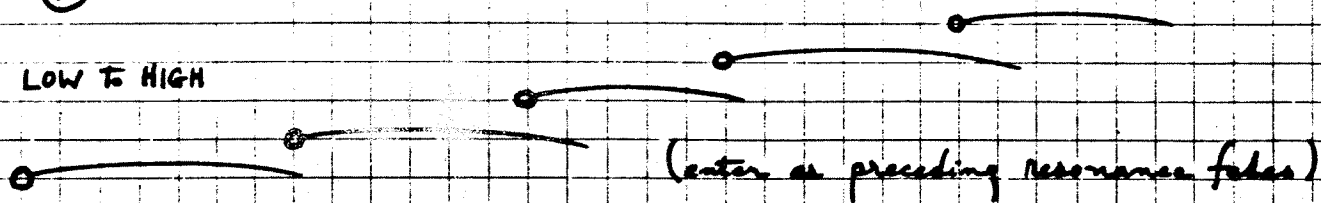
Each player must be capable of maintaining his/her tempo in any context. However- There is to be no particular attempt to coordinate the ensemble parts. (The slight degree of "imprecision" remaining even with well disciplined human beings will contribute to a desirable richness of texture.)

As done by Son of Lion:

- 1 - 1/4 sec.
- 2 - 1/2 sec.
- 3 - 2/3 sec.
- 4 - 1 sec.
- 5 - 1 1/2 sec.
- 6 - 2 sec.
- 7 - 3 sec.
- 8 - 4 sec.
- 9 - 5 sec.
- 10 - 6 sec.

Try to perform Hours I while the audience is not seated and waiting expectantly... such as, after intermission or at the beginning of the concert. This will be helped by not taking a formal seated posture until just before Hours II.

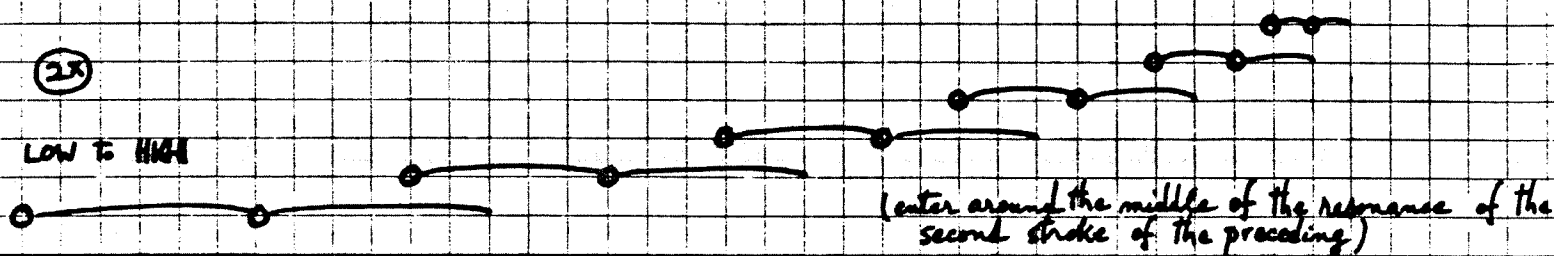
(1x)
LOW TO HIGH



I

(2x)

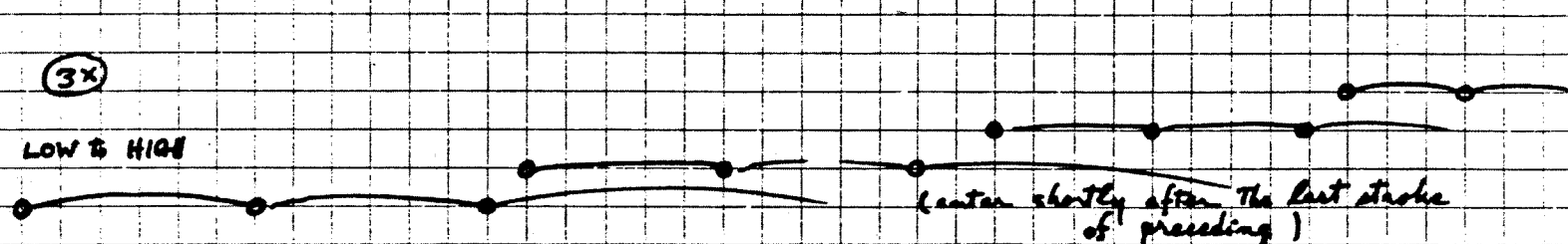
LOW TO HIGH



II

(3x)

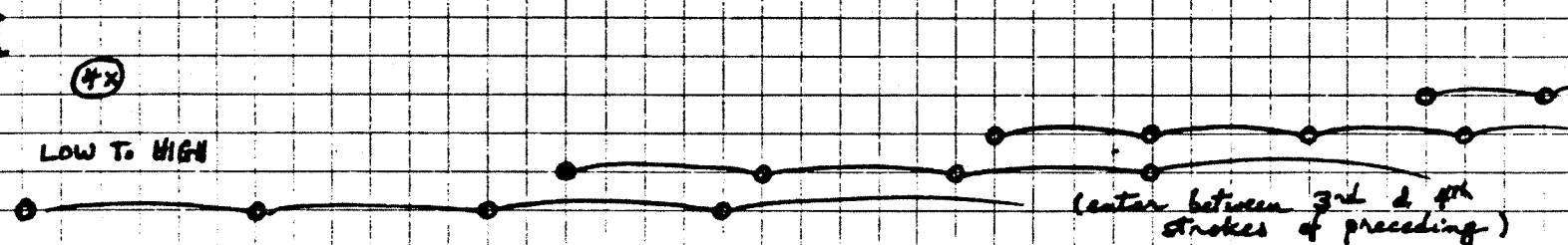
LOW TO HIGH



III

(4x)

LOW TO HIGH

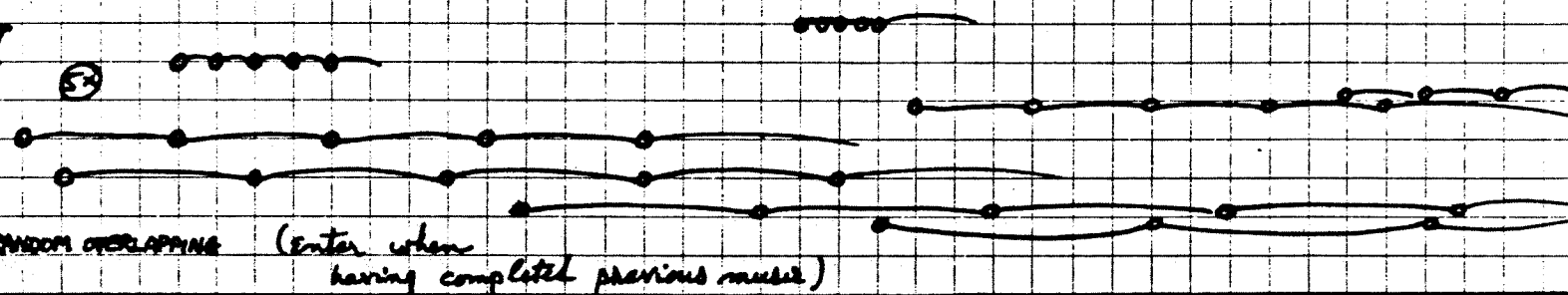


V

(5x)

RANDOM OVERLAPPING

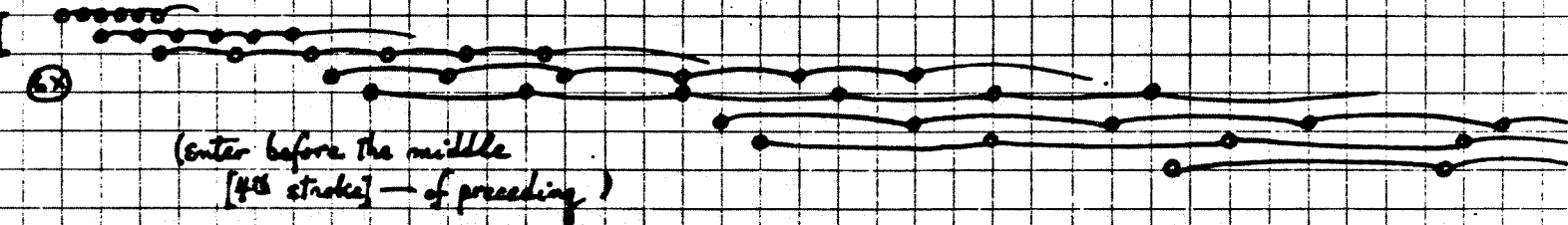
(enter when having completed previous music)



VI

(6x)

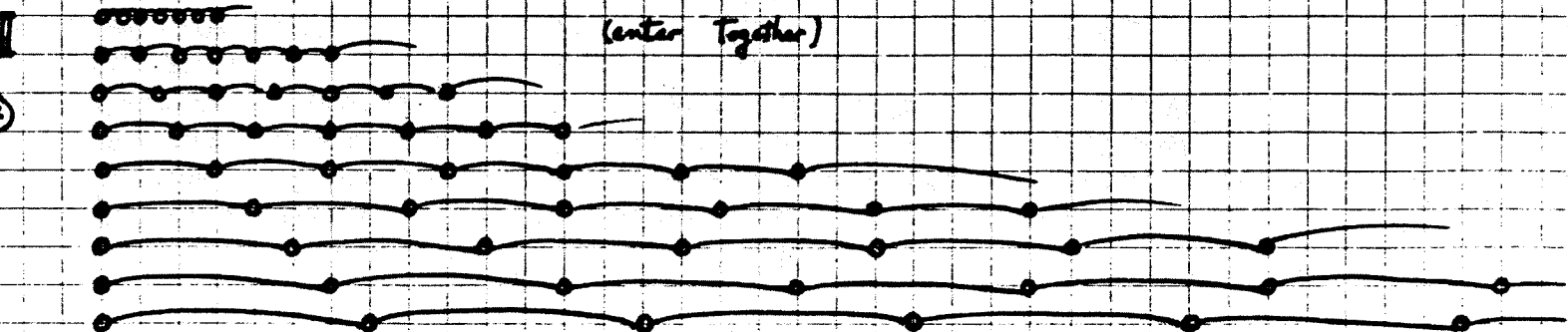
(enter before the middle [4th stroke] — of preceding)



VII

(7x)

(enter Together)



SPIRALS FOR GAMELAN

PETER GRIGGS

Notes on Performance

SPIRALS FOR GAMELAN is scored for a mixed ensemble of pelog and slendro instruments including pelog - saron, demung, and slentem and slendro - peking, saron, demung, and slentem. . . An embellishment part is also provided for a pair of pelog and slendro sarons (one player). If these are unavailable, other instruments in the saron range such as bonangs might be substituted. No gongs are used in the piece. It is recommended that players use individual parts in performance.

This work is based on a series of time cycles or measures, each of which is repeated many times. The exact number of repetitions is determined in performance by each individual player within the context of an overall group consensus. Instruments enter softly one at a time from low to high: the slentem comes in first, followed in staggered fashion by the demungs, sarons, and peking. In SPIRAL I, performers select and play only one note from their given **pattern and cycle**. They are free to choose which note they will play and to vary their selection from performance to performance. SPIRALS II and III begin exactly the same way, but in these instances players gradually add in their other notes one at a time ad libitum until the full pattern emerges.

Throughout the course of the piece, one of the slentem players serves as conductor, always playing on the first beat of the cycle. After all players are repeating their full patterns, the slentem player changes to a different time cycle. Other players should be aware when the slentem changes the time cycle, but they should not respond immediately. Gradually one at a time from low instruments to high, players shift to the new time cycle. Players orient themselves to the downbeat of the slentem's cycle and only switch when beat one of their cycle co-incides with beat one of the slentem cycle.

SPIRALS FOR GAMELAN I

Players enter one at a time from lowest to highest instrument. Each player selects only one note from their given pattern. The slentem delineates the eight beat cycle, playing on the first beat. All players add their selected note at the appropriate place within the eight beat cycle.

Example: Slendro Demung part

$$\cdot \overset{\cdot}{6} \cdot 2 \cdot \overset{\cdot}{6}^{-1}$$

Options:

- Pitch 6 on second beat
- Pitch 2 on fourth beat
- Pitch 6, 2 or both on seventh beat
- Pitch 1 on eighth beat

Dynamics remain soft throughout this section. After many repetitions ad lib. players fade to silence one by one, first the higher instruments and then the lower ones.

SPIRALS FOR GAMELAN II

Begin as in SPIRAL I. Players gradually add in other notes until the full pattern of the cycle emerges. The slentem initiates the change to the six beat cycle. One at a time the other players gradually shift to the six beat cycle, from lowest to highest instruments. After having switched to the new six beat cycle, players repeat their entire pattern many times ad lib. The slentem initiates the change to the four beat cycle and the same process is repeated. After all players are repeating their four beat pattern, players substitute rests for notes in their patterns. They play fewer and fewer notes and they finally drop out altogether. Higher instruments drop out first, followed by the lower ones.

Example: Pelog Demung

Full pattern: 5 . 3 . 3 5 . .
1

Sample	.	.	3	.	.	.	.	.
Realization:	.	.	3	.	.	5	.	.
	.	.	3	.	3	5	.	.
	5	.	3	.	3	5	.	.
	1							

SPIRALS FOR GAMELAN III

At the end of Imbal II the slentem continues to play, and during Hours 6, changes meter to that of Spirals III. The embellishment part is then added. After the last of the Hours 6 gongs sounds, the other players add their notes and complete their patterns.

Following the process used earlier, the slentem initiates the changes to cycles of six and nine beats respectively. One by one all players gradually shift to the new cycles, synchronizing their downbeats with the slentem. After the final cycle of nine beats is reached, players gradually substitute rests in place of notes in their patterns, until only one note remains. The same process affects the embellishment part: the player substitutes rests for notes in the pattern, until only a few notes remain. Players gradually drop out, leaving only the slentem and embellishment part. They fade to silence.

Score

SPIRALS FOR GAMELAN I

Slendro Peking		tacit	
Slendro Saron		. 6̣ . 2 . . 6̣ ị	
Slendro Demung		. 6̣ . 2 . . 6̣ ị 2	
Slendro Slentem		tacit	
Embellishment	Sl:	— 6̣2̣ 2̣ 2̣ 2̣ — 6̣2̣ ịị	
	Pel:	15 3 3 3 51	
Pelog Saron		5 . 3 . 3 5 . . 1̣	
Pelog Demung		5 . 3 . 3 5 . . 1̣	
Pelog Slentem		5 1̣	

SPIRALS FOR GAMELAN II

Slendro Peking	tacit								tacit								tacit							
Slendro Saron	.	$\dot{6}$	.	2	.	.	$\dot{6}$	$\dot{1}$	.	$\dot{6}$	.	2	.	$\dot{6}$	.	2	.	$\dot{6}$		
Slendro Demung	.	$\dot{6}$	.	2	.	.	$\dot{6}$	$\dot{1}$	.	$\dot{6}$	.	2	.	$\dot{6}$	.	2	.	$\dot{6}$		
							2							2				2						
Slendro Slentem	tacit								tacit								tacit							
Embellishment Sl:		$\overline{\dot{6}2}$	$\overline{2}$	$\overline{2}$	$\overline{2}$	$\overline{2}$	$\overline{\dot{6}2}$	$\overline{\dot{1}1}$		$\overline{\dot{6}2}$	$\overline{2}$	$\overline{2}$	$\overline{2}$	$\overline{2}$		$\overline{\dot{6}2}$	$\overline{2}$	$\overline{26}$						
Pel:	15		3	3	3	51			15		3	3	13	3		15	3							
Pelog Saron	5	.	3	.	3	5	.	.	5	.	3	.	3	.	5	.	3	.						
	1	.	.	.	.	.	.	.	1	.	.	.	.	.	1	.	.	.
Pelog Demung	5	.	3	.	3	5	.	.	5	.	3	.	3	.	5	.	3	.						
	1	.	.	.	.	.	.	.	1	.	.	.	.	.	1	.	.	.
Pelog Slentem	5	.	.	.	.	.	.	.	5	.	.	.	.	.	5	.	.	.
	1	.	.	.	.	.	.	.	1	.	.	.	.	.	1	.	.	.

SPIRALS FOR GAMELAN III

Slendro Peking	1 . 6	1 6	1 6 . 6
Slendro Saron	$\dot{1}$. 6 $\dot{1}$	$\dot{1}$. 3 . . 6 $\dot{1}$	$\dot{1}$. 3 . 3 . $\dot{6}$. $\dot{6}$ $\dot{1}$
Slendro Demung	$\dot{1}$. 6 $\dot{1}$ 2	$\dot{1}$. 3 . . 6 $\dot{1}$ 2	$\dot{1}$. 3 . 3 . $\dot{6}$. $\dot{6}$ $\dot{1}$ 2 2
Slendro Slentem	5 . . $\dot{1}$	5 $\dot{1}$	5 $\dot{1}$
Embellishment Sl: Pel:	$\overline{15}$ $\overline{.5}$ $\overline{26}$	$\overline{11}$ $\overline{3}$ $\overline{3}$ $\overline{15}$ $\overline{.5}$ $\overline{6}$ 4 2 2	$\overline{11}$ $\overline{6}$ $\overline{3}$ $\overline{2}$ $\overline{15}$ $\overline{.5}$ $\overline{26}$ $\overline{11}$ $\overline{26}$ 4 4 2
Pelog Saron	. 4 $\dot{6}$	. 4 . 2 4 $\dot{6}$	. 4 . 2 . 4 . 4 $\dot{6}$
Pelog Demung	. 4 $\dot{6}$	. 4 . 2 4 $\dot{6}$	. 4 . 2 . 4 . 4 $\dot{6}$
Pelog Slentem	tacit	tacit	tacit

TREMOLLO

-

Daniel Goode

- 1) A pair of players for each octave instrument is needed in both tunings. The leader of each pair gives the down-beat (only) for each bar (see score below). Each person is free to end their bar when they want (the other waits).
- 2) The pelog player plays 2 pitches per bar with two mallets in a freely chosen rhythm, e.g.: $\parallel \text{♩} \text{♩} \parallel$ OR $\parallel \text{♩} \text{♩} \parallel$ OR $\parallel \text{♩} \text{♩} \parallel$ OR $\parallel \text{♩} \text{♩} \parallel$ ETC.
The shape of the rhythm should stay the same during accel. and rit.
The slendro player plays one pitch per bar with one mallet.
- 3) In every bar each player independently decides to play a whole gesture of either:
slow-to-fast-to-slow (gradually)
or: fast-to-slow-to-fast (gradually) over a freely chosen duration.
- 4) Dynamics: all possibilities; cresc./decresc. ad lib.
- 5) No damping of keys.
- 6) The general feel of the piece is as of a 'recitative' between the metric sections of the whole piece. Players should hear themselves in relation to their partner and to the whole group as possible:

complements of
oppositions to
re-inforcements of
phase relations of
solo vs. ensemble
dense or sparse textures

TREMOLLO I: Slendro | 3 |
 Pelog | 4,5 |

TREMOLLO II: Slendro | 3 | 2 |
 Pelog | 4,5 | 2,3 |

TREMOLLO III: Slendro | 2 | 6 | 3 | 6 | 2 | 2 | 2 | 1 |
 Pelog | 1,2 | 5,7 | 4,5 | 5,7 | 1,2 | 2,3 | 1,2 | 7,1 |

(see the Gamelan NEA flow chart for the way the Tremolo sections connect to the adjacent sections)

IMBAL --- Barbara Benary
notes on performance

These sections are named for the Javanese term for interlocking parts. In each of the four octaves of the gamelan's melody range, pairs of instruments (one slendro, one pelog) work as an interlocking team to produce a six note mode using three pitches of each tuning system. There are two such modes. In the first half of the section they are: slendro 1, 2, 5 and pelog 3, 5, 7. At the change or midway point, there is a pitch modulation up a half step to the second mode: pelog 1, 2, 5 and slendro 3, 6, 1.

Each Imbal section of Gamelan N.E.A. is in the dynamic shape of a large crescendo-decrescendo, the climax of which is the change point, marked by a loud gong agung stroke, at which the modulation takes place. Tempo is constant throughout.

There are three layers of activity in each section. As in Javanese court music, no layer of activity is the soloist; all should be equally balanced. These are:

- 1) Colotomic and drone patterns. These parts emphasize the pitch centers (5 and 2 for Imbal I; 3 and 7 for Imbal II). Lower instruments chime these as chords, marking the measures. Pekings play them as a rapid ostinato-drone.
- 2) Imbal pattern. This is a sequence of measures repeated a fixed number of times which fills in the colors of the mode. When the part repeats, the two players switch lines, which serves to modulate the imbal into the second mode.
- 3) Obbligato This is a through composed melody which moves from the first mode into the heterophony of simultaneous modes and, after the change point, resolves again into the second mode.

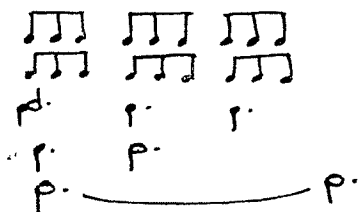
The sample scores which follow, as well as individual parts, are to be interpreted with the western concept of rhythm: i.e. emphasis falls on the downbeat rather than endbeat.

The score is a "sample" in that it shows the correct rhythmic relationship of the parts, but does not show exactly where they may fall in relation to each other. The parts do not begin together and the obbligato part has certain freedom in deciding where to begin, where to go on after the change point. However each of the players in a pair of instruments must stay strictly together with his/her partner.

IMBAL I

Tempo is approximately: ♩ = 90 The parts and their relationships are as follows:

Peking pair: drone-ostinato
Saron pair: imbal
Demung pair: chimes
Slentem pair: obbligato
Keygong: chimes



Transition into Imbal I

There is a crossfade from Tremolo I to Imbal I. The chime and drone instruments establish their patterns before the last pair of Tremolo players have finished. There must not be a break of energy between the sections even though Imbal begins at a lower dynamic level than Tremolo.

Pekings enter first establishing the tempo of the section toward the end of the Tremolo; thus these players must plan to end their Tremolo a bit early.

Demungs pick up tempo from pekings and enter, also before Tremolo is completed.

Saron players begin their imbal as Tremolo finishes, beginning on a measure downbeat.

Slentems begin playing after some 3 to 5 measures of imbal have been heard, entering also on a measure downbeat.

Keygong enters after slentems.

Gong Agung player follows the imbal part (sarons) but plays only once: on the downbeat of the repeat.

The change

Most instruments take their change cue from the gong agung. Demung and keygong switch on the gongstroke. Pekings must execute an inconspicuous phase-shift in their pattern without dropping out.

Slentems have a built-in repeated phrase midway through the part. Keep repeating until the gong agung is heard. Then read on through to the next half of the part.

Transition out of Imbal I

This may take place as soon as the slentem obbligato is complete. Any pair of players may then jump into Tremolo II. It is not necessary to wait for the saron imbal to finish. In fact, saron players may choose to drop their last measures to join the Tremolo.

No one should drop out. Again, there should be no energy loss between this section and the next.

IMBAL I --- sample score

sl. peking	25. 52. 25.	52. 25. 52.	25. 52. 25.	52. 25. 52.
pel. peking	..5 ..2 ..3	..5 ..2 ..3	..5 ..2 ..3	..5 ..2 ..3
sl. saron	212 ..5 2.5	212 ..5 2.5	212 ..5 2.5	212 ..5 2.5
pel. saron	... 35. .5.	... 35. .5.	... 35. .5.	... 35. .5.
sl. demung	5 5	5 5	5 5	5 5
	2 2 2	2 2 2	2 2 2	2 2 2
pel. demung	5	5	5	5
	2 . .	2 . .	2 . .	2 . .
sl. slentem	2 5 .	. . .	5 2 .	. . .5
pel. slentem	. . .	. . .5	. . .	. . .
key gong (sl)	5 . .	5 . .	5 . .	5 . .
gong agung	(tacet)			

etc....

CHANGE TO:

sl. peking	..6 ..5 ..2	..6 ..5 ..2	..6 ..5 ..2	..6 ..5 ..2
pel. peking	52. 25. 52.	25. 52. 25.	52. 25. 52.	25. 52. 25.
sl. saron	... 36. .6.	... 36. .6.	... 36. .6.	... 36. .6.
pel. saron	212 ..5 2.5	212 ..5 2.5	212 ..5 2.5	212 ..5 2.5
sl. demung	5	5	5	5
	2 . .	2 . .	2 . .	2 . .
pel. demung	5 5 5	5 5 5	5 5 5	5 5 5
	2 2	2 2	2 2	2 2
sl. slentem	5.2 3.5 512	5.6 512 356	5 5 ..	1 56 53
pel. slentem	5.2 3.5 512	5.5 512 355	5 5 ..	7 55 53
key gong sl.	5 . .	. . .	. . .	. . .
pel.	5 . .	5 . .	5 . .	5 . .
gong agung	G . .	. . .	(continue tacet)	

etc-16

IMBAL II

Tempo is approximately: ♩ = 110 The parts and their relationships are as follows:

Peking pair: drone-ostinato
Saron pair: obbligato
Demung pair: imbal
Slentem pair: chimes
Keygong: chimes



Transition into Imbal II

Again there is a crossfade from Tremolo III. The order of entrances are:

Pekings, who play as fast as possible without loss of rhythmic accuracy.

Slentems

Demungs add imbal just before or just after Tremolo ends.

Sarons begin playing after some 4 to 7 measures of imbal.

Keygongs enter after sarons are established.

The change

As before, only this time it is the sarons who have the repeating phrase out of which they exit after hearing the gong agung.

Transition out of Imbal II

Imbal II ends with the interruption of Hours 6, which is a sounding of the gongs from highest to lowest. The interruption occurs after the sarons have finished their obbligato. Players drop out in the order in which they must sound the Hours except for the slendro slentem. This player continues to play through the gongstrokes, during the course of which the tempo of the slentem notes switches to that of Spirals III.

This is a transition of intense activity. There should be no energy loss between the end of Imbal II and the interruption.

IMBAL II --- sample score

sl. peking	.3ī..3ī..3ī..3ī.	.3ī..3ī..3ī..3ī.	.3ī..3ī..3ī..3ī.
pel.peking	3..73..73..73..7	3..73..73..73..7	3..73..73..73..7
sl. saron	5 . . . 2 . . .	. . . . . 5	2
pel.saron	. . 3 . . 3 . .	. . . . 3 . . .	. . . . .
sl. demung	. . . 2 . . 2 5	. . . 2 . . 2 5	. . . 2 . . 2 5
pel demung	3 7 5 . 3 5 . .	3 7 5 . 3 5 . .	3 7 5 . 3 5 . .
sl. slentem	ī .	ī .	ī .
	3 .	3 .	3 .
pel.slentem	7 7	7 7	7 7
	3 3	3 3	3 3
keygong pel	3 .	3 .	3 .
gong agung	(tacet)		etc...

CHANGE TO:

sl. peking	3ī..3ī..3ī..3ī..	3ī..3ī..3ī..3ī..	3ī..3ī..3ī..3ī..
pel.peking	..73..73..73..73	..73..73..73..73	..73..73..73..73
sl. saron	<u>23</u> . . ī 3 2 ī .	<u>32</u> . . 5 <u>23</u> . . ī	3 2 ī . 5 2 5 3
pel.saron	<u>23</u> . . 7 3 2 . 7	<u>32</u> . . 5 <u>23</u> . . 7	3 2 . 7 5 2 5 3
sl. demung	3 ī 6 . 3 6 . .	3 ī 6 . 3 6 . .	3 ī 6 . 3 6 . .
pel.demung	. . . 2 . . 2 5	. . . 2 . . 2 5	. . . 2 . . 2 5
sl. slentem	ī ī	ī ī	ī ī
	3 3	3 3	3 3
pel.slentem	7 .	7 .	7 .
	3 .	3 .	3 .
keygong sl.	3 .	. .	3 .
pel.	3 .	. .	. .
gong agung	G .	. .	(continue tacet)

Gamelan NEA: flow chart

HS I Before the audience is seated (ideally)	long pause (the audience returns)	HS II To commence the performance	SP I fade in. One note each fade out	HS III Each entrance right after previous	SP 2 fade out.	HS IV Each entrance between notes 3-4 of previous.	TR I Staggered entrances mostly fast-slow-fast.	IM I overlap into
		attacca:	attacca:	attacca:		attacca:	Overlap into:	

TR 2 Overlap into:	HS V Independent, "random" entrances	short pause	TR 3 Unison entrance Long overlap (Rekings) into:	IM 2 Interrupt with:	HS VI High-to-low overlapping entrances. Slentem continues IM 2 till cue to change to:	SP 3 Fade out	Pause: long as possible before applause, then:	HS VII Unison entrance
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HS = "gamelan hours"
 SP = "spirals"
 TR = "Tremolo"
 IM = "Imbal"

SPIRALS FOR GAMELAN

I. tacit

II. tacit

III. mm. = ca. 132

Enter softly ad lib after all other players. Gradually crescendo to moderate volume. Repeat each line many times and change to new cycles ad lib (see Notes).

1 . 6

1 6

1 6 . 6

Substitute rests in place of notes in final pattern. Fade out (high instruments first).

Embellishment part
 Pelog & Slendro Sarons
 (one player)

SPIRALS FOR GAMELAN

I. tacit

II. mm. = ca 108

Select one note from the given pattern. Enter ad lib. after slentem, demungs, and sarons. Keep adding notes until the full pattern is reached. Repeat many times. Change to new cycles ad lib. along with the other instruments.

Sl: $\overline{62} \overline{2} \overline{2} \overline{2} \overline{62} \overline{11}$
 Pel: $\overline{15} \quad 3 \quad 3 \quad 3 \quad \overline{51}$

Sl: $\overline{62} \overline{2} \overline{2} \overline{2}$
 Pel: $\overline{15} \quad 3 \quad 3 \quad \overline{13} \quad 3$

Sl: $\overline{62} \overline{2} \overline{26}$
 Pel: $\overline{15} \quad 3$

III. mm. = ca . 132

Begin at moderate volume (solo). with full pattern. Repeat many times and change to new cycles ad lib. When the final cycle is reached, gradually substitute rests in place of notes in the pattern. Gradually fade to silence with slentem.

Sl: $\overline{15} \overline{15} \overline{26}$
 Pel:

Sl: $\overline{11} \overline{3} \overline{3} \overline{15} \overline{5} \overline{26}$
 Pel: $\quad 4 \quad 2$

Sl: $\overline{11} \overline{6} \overline{3} \overline{2} \overline{15} \overline{5} \overline{26} \overline{11} \overline{26}$
 Pel: $\quad 4 \quad 4 \quad 2$

SPIRALS FOR GAMELAN

I. mm. = ca 108

Select one note only from given pattern. Enter ad lib after slentem and demungs. Repeat many times softly.

. 6̣ . 2 . . 6̣ 1̣

Fade out (high instruments first)

II. mm. =,ca. 108

Begin as in I. Gradually add in other notes. Repeat full pattern many times; crescendo to moderate volume. Change ad lib to new cycles (see Notes).

. 6̣ . 2 . . 6̣ 1̣

. 6̣ . 2 . 6̣

. 2 . 6̣ Fade out (high instruments first)

III.

Enter ad lib. after embellishment, slentem, and demungs. Repeat each line many times. Change to new cycles ad lib (sim.)

1̣ . 6̣

1̣

1̣ . 3 . . 6̣

1̣

1̣ . 3 . 3 . 6̣ . 6̣

1̣

Substitute rests inplace of notes in final pattern (see Notes).
Fade out (high instruments first).

SPIRALS FOR GAMELAN

I. mm. = ca. 108

Select one note only from given pattern. Enter ad lib.
after slentem and demungs. Repeat many times softly.

5 . 3 . 3 5 . .
1
.

Fade out (high instruments first).

II. mm. = 108

Begin as in I. Gradually add notes to full pattern. Repeat
many times, crescendo to moderate volume. Change ad lib. to
new cycles.

5 . 3 . 3 5 . .
1
.

5 . 3 . 3 .
1
.

5 . 3 . fade out (high instruments first)
1
.

III. mm. = ca 132

Enter ad lib after embellishment, slentem and demungs. Repeat
each line many times and change to new cycles ad lib.

. 4 6

. 4 . 2 . 4 6

substitute rests
in final pattern.

Fade out (high to low).

. 4 . 2 . 4 . 4 6

SPIRALS FOR GAMELAN

I. mm. ca. 108

Select one note only from given pattern. Enter ad lib after slentem and demungs. Repeat many times softly.

.	6̇	.	2	.	.	6̇	i̇	
						2		Fade out (high instruments first)

II. mm. = 108

Begin the same way, then gradually add in other notes. Repeat full pattern many times. Crescendo to moderate volume. Change ad lib to new cycles (see Notes).

.	6̇	.	2	.	.	6̇	i̇	
						2		
.	6̇	.	2	.	6̇			
					2			
.	2	.	6̇					
			2					Fade out (high instruments first)

III. mm. = ca. 132

Enter ad lib after embellishment and slentem. Repeat each line many times and change to new cycles ad lib.

i̇	.	6̇			
1̇		2			
i̇	.	3	.	.	6̇
1̇					2
i̇	.	3	.	3	.
1̇					2
				6̇	.
				2	6̇
					2

Substitute rests in place of notes in final pattern. When one note remains, fade out (high instruments first).

SPIRALS FOR GAMELAN

I. mm. = ca. 108

Select one note only from given pattern. Enter softly after slentem ad lib. Repeat many times and then fade out (high - low).

5 . 3 . 3 5 . .
1
.

II. mm. = 108

Begin as in I. Gradually add in other notes and crescendo to moderate volume. Repeat full pattern many times and then change to new cycles ad lib (see Notes).

5 . 3 . 3 5 . .
1
.

5 . 3 . 3 .
1
.

5 . 3 . Fade out (high instruments first).
1
.

III. mm. - ca. 132

Enter ad lib after embellishment and slentem. Repeat each line many times and change to new cycles ad lib.

. 4 6̇

. 4 . 2 4 6̇

. 4 . 2 . 4 . 4 6̇

Substitute rests for notes in final pattern. When only one note remains, fade out (high instruments first).

SPIRALS FOR GAMELAN

I. tacit

II. tacit

III. mm. = ca. 132

Enter ad lib. after embellishment. Repeat each line many times.
Change to new cycles ad lib. (see Notes on Performance).

Begin softly. Crescendo to moderate volume gradually.

5 . .
1
.

5
1
.

5
1
.

Fade out to end the piece.

SPIRALS FOR GAMELAN

I. mm. = ca. 108

Begin softly (solo) and repeat many times while the other instruments enter. Change to new cycles ad lib.

5
1

Fade to silence after the other instruments have dropped out.

II. mm. = 108

Begin as in I. Repeat many times and crescendo to moderate volume. Change ad lib to new cycles.

5
1

5
1

5
1

Fade to silence after the other instruments have dropped out.

III. tacit

slendro saron
pelog saron
gong

IMBAL I

sl/pel	$\left[\begin{array}{c} \textcircled{G} \end{array} \right]$	212 ..5 2.5	|	..2 ..5 2.5	|	..2 15. 2.5	|	..2 15. .52	|
pel		... 35. .5.	|	73. 35. .5.	|	73. ..5 .5.	|	73. ..5 7..	|
sl		... 36. .6.	|	13. 36. .6.	|	13. ..6 .6.	|	13. ..6 1..	|
G									

(second time only)

sl/pel	$\left[\begin{array}{c} \textcircled{G} \end{array} \right]$	.5. 15. .52	|	.5. ^{2.5} 15. .52	|	.5. 2.5 ..5	|	2.1 2.5 ..5	|
pel		3.7 ..5 7..	|	3.7 .3. 7..	|	3.7 .3. 57.	|	.3. .3. 57.	|
sl		3.1 ..6 1..	|	3.1 .3. 1..	|	3.1 .3. 61.	|	.3. .3. 61.	|

sl/pel	$\left[\begin{array}{c} \textcircled{G} \end{array} \right]$	2.1 ..5 ..5	|	2.1 ..5 2.5	|
pel		.3. 35. 57.	|	.3. 35. .5.	|
sl		.3. 36. 61.	|	.3. 36. .6.	|

Notes:

Each bar is repeated four times before going on to the next.

After the last measure, fourth time, return to the beginning and go through the entire again, but with switched parts:

First time through slendro player reads top line, pelog reads middle. Gradual \leq to end.

Second time through slendro player reads bottom line, pelog reads top. Gradual \geq to end.

The saron part to Imbal begins after the demung and peking parts are established, just before or after Tremolo I ends.

The gong sounds only once.

slendro slentem
pelog slentem

IMBAL I

sl. | 2 5 . | . . . | 5 2 . | . . . | 2 5 . | 5 . . | . 5 5 | 2 . . |
 pel. | . . . | . . . | . . . | . . . | . . . | . . . | 7 . 5 3 | . . . |

| . . . | 2 5 | . . . | 5 3 . | . 6 5 3 | 5 . . | . . . | . . . | 3 5 3 2 |
 | . . . | 3 . 3 | 5 3 . | . 5 5 3 | 5 . . | . 7 7 | 3 . 7 7 | 3 5 3 2 |

| 1 . . | . 5 6 5 | 1 . 2 5 | 6 1 3 . | 6 1 2 3 | 6 5 3 2 1 | 2 . 3 6 | 5 . 3 6 |
 | 1 . . | . 5 5 5 | 1 . 2 5 | 5 7 3 . | 5 7 2 3 | 5 5 3 2 1 | 2 . 3 5 | 5 . 3 5 |

[5 6 5 2 3 5 | 5 1 2 5 6 5 2 | 3 5 5 1 2 5 6 | 5 2 3 5 5 1 2 .]
 [5 5 5 2 3 5 | 5 1 2 5 5 5 2 | 3 5 5 1 2 5 5 | 5 2 3 5 5 1 2]

repeat until after
change gong

| 5 6 5 1 2 3 5 6 | 5 5 . | 1 5 6 5 3 | 2 3 1 2 5 | 3 . . | . . 3 5 | 6 5 3 5 |
 | 5 5 5 1 2 3 5 5 | 5 5 . | 7 5 5 5 3 | 2 3 1 2 5 | 3 . . | . . 3 5 | 5 5 3 5 |

| . 1 1 | 3 . . | . 1 1 | 3 . 6 | . 1 1 | 3 3 . | . . . | . 5 6 5 |
 | . 7 7 | 3 . . | . . . | . 5 . | . . . | . 5 2 | 1 . . | . 5 5 5 |

| 1 . . | . . 6 | 6 1 3 . | 6 1 . 3 | 6 3 . | . 3 . | . . . |
 | 1 . . | . . 2 | . . . | . 2 . | . 5 2 1 | . 5 2 1 | . 5 1 |


| . . . | . . . |
 | 2 . . | 2 . . |

Notes:

Begin after saron imbal

Slow < to middle; slow > to end.

Rhythmic divisions-

5 6 5 =  triplet division of unit

5 . 6 = 

5 6 = duple division of unit against accompanying tripple

pekings
demungs
keygongs

IMBAL I

sl. peking	$\left[\begin{array}{cc} 25. & 52. \end{array} \right]$	change	$\left[\begin{array}{ccc} ..6 & ..5 & ..2 \end{array} \right]$
pel.peking	$\left[\begin{array}{ccc} ..5 & ..2 & ..3 \end{array} \right]$	to	$\left[\begin{array}{cc} 52. & 25. \end{array} \right]$
sl. demung	$\left[\begin{array}{ccc} 5 & 5 & \\ 2.. & 2.. & 2.. \end{array} \right]$	change	$\left[\begin{array}{ccc} 5 & & \\ 2.. & ... & ... \end{array} \right]$
pel.demung	$\left[\begin{array}{ccc} 5 & & \\ 2.. & ... & ... \end{array} \right]$	to	$\left[\begin{array}{ccc} 5 & 5 & \\ 2.. & 2.. & 5.. \end{array} \right]$
keygongs	$\left[\begin{array}{ccc} (sl) & & \\ 5.. & ... & ... \end{array} \right]$	change	$\left[\begin{array}{ccc} (pel) & & \\ 5.. & ... & ... \end{array} \right]$
		to	

Keygong: on the change chord, when the gong agung sounds, play the two notes sl 5 and pel 5 together.

slendro saron
pelog saron

IMBAL II

sl.	5...	2...	....	...5	2...	....	....	....
pel.	..3.	.3..	....	3...	....	....	....	..3.
	..5.	....	....	....	....	5.3.	25..	....
	5...	....	....	3...	5...	....	..3.	....
	....	....	....	25.. <u>2</u>	1...	25..	1...	....
	....	....	....	..3.	....	....	....	....
slow crescendo	..5.	1...	....	1.2.	..5.	.5..	6532	.123
	....	....	....	....	3..5	..3.	5532	.123
	1.1.	....	....	....	....	....	....	....
	7.7.	....	....	....	573.	3...	....	..57
	2...	....	...2	313.. <u>2</u>	1.5.	....	..1.	5...
	..3.	..57	.53.	373.. <u>2</u>	1.5.	....	....	...5
	2...	2...	261.	2.26	5...	3.5.	..5.	....
	....	2...	251.	2.25	5...	3.5.	....	5753
	1...	..1.	.1.3	.121	3253	23.1	325.	.11.
	..7.	3...	.7.3	.127	3253	23.7	325.	.71.
	$\frac{23..1}{23..7}$	$\frac{321.}{32.7}$	$\frac{32..5}{32..5}$	$\frac{23..1}{23..7}$	$\frac{321.}{32.7}$	$\frac{5253}{5253}$		
slow decrecendo	2532	5321	3211	.5.3	$\frac{23...}{23...}$	$\frac{..3.5}{..3.5}$	2...	2.2.
	2532	5327	3217	.5.3			2...	2.2.
	..3.	6...	.36.	.3...	3.3.	....	..1.	25..
	....	..5.	...5	.. <u>25</u>.	...<u>2</u>	1...	..1.	25..
	1...	....	....	3...	..3.	....	3.. <u>6</u> .	3..3
	1...	....	1..2	..5.	2...	5.2.	..5	. <u>5</u> .21.
	1.1.	....	1.1.	613.	..61	.63.	313.	....
	....	....	....	573.	..57	...2	... <u>2</u>	1.5.
	....	....	..6.	....	...6	....	..6.	...6
	5...	....	....	5...	....	2...	2...	..2.
	...6	....	....	....	3.3.	1.1.	..1.	1.3.
	.12.	5...	....	....	3.3.	7.1.	..7.	1.3.
	....	....	...3	....	3...	....	..1.	3...
	....	....	5...	21..	....	....	....	....

IMBAL II

slendro demung
pelog demung
gong

sl/pel	...	2	..25.	|	125.	..25	|	125.	..2.	|	5..2	..2.	|
pel	375.	35..		|	...5	35..	|	...5	75.3	|	.53.	75.3	|
sl	3i6.	36..		|	...6	36..	|	...6	i6.3	|	.63.	i6.3	|
G	<div> <div>ⓐ</div> <div>→</div> </div> (second time only)												

sl/pel	5..2	12..	|	.25.	12..	|	.25.	21.2	|	.5..	21.2	|
pel	.53.	..37	|	5..3	..37	|	5..3	..7.	|	3.57	..7.	|
sl	.63.	..3i	|	6..3	..3i	|	6..3	..i.	|	3.6i	..i.	|


sl/pel	..5.	12..	|	.5.2	12..	|	.5.2	52.5	|	125.	52.5	|
pel	3.57	..37	|	5.3.	..37	|	5.3.	..3.	|	...5	..3.	|
sl	3.6i	..3i	|	6.3.	..3i	|	6.3.	..3.	|	...6	..3.	|


sl/pel	125.	..2.	|	52.1	..2.	|	52.1	..2.	|	...2	..2.	|
pel	...5	73.5	|	..3.	73.5	|	..3.	57.7	|	375.	57.7	|
sl	...6	i3.6	|	..3.	i3.6	|	..3.	6i.i	|	3i6.	6i.i	|

Notes:

Each bar is repeated three times before going on to the next.

After the last measure, third time, return to the beginning and go through the entire again, but with switched parts:

First time through slendro player reads top line, pelog reads middle. Gradual  to end

Second time through slendro player reads bottom line, pelog reads top. Gradual  to end.

Demung imbal begins after pekings and slentems are established, just before or after Tremolo III ends.

The gong sounds only once.

IMBAL II

(four peking notes for every count in slentem part)

(two measures of slentem pattern for every one keygong note)

Keygong: on change chord, when the gong agung sounds, play the two notes, sl 3 and pel 3, together.