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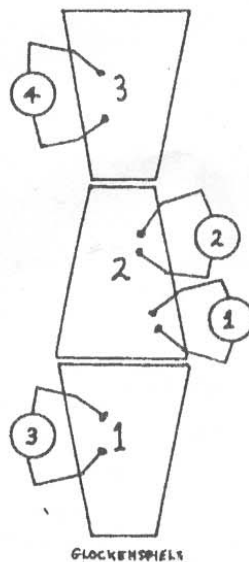
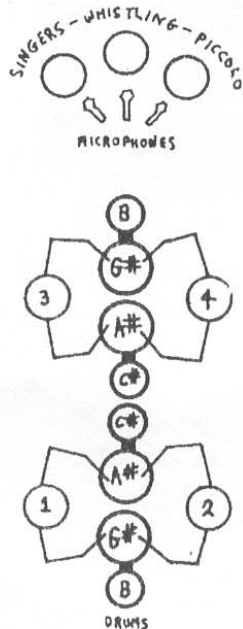
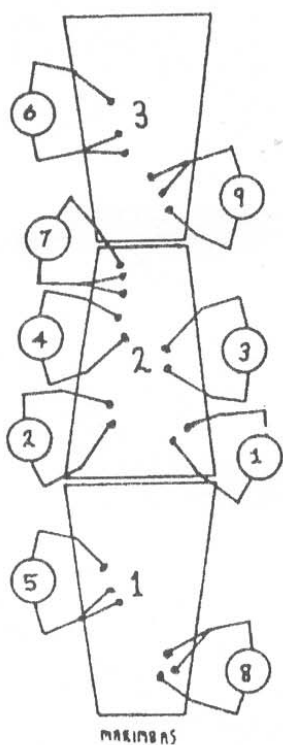
# DRUMMING

for

EIGHT SMALL TUNED DRUMS  
THREE MARIMBAS THREE GLOCKENSPIELS  
MALE AND FEMALE VOICES  
WHISTLING AND PICCOLO

The drums are stand mounted and played with dowel sticks. One end of the stick is covered with felt, or some other padding to make the soft stick, while the uncovered wood end is the hard stick. The drums are tuned and arranged for the drummers, who stand while playing, as shown below.

The marimbas and glockenspiels are set end to end with players arranged around them as shown below.



The above illustrates the maximum number, and suggested position, of players during the first three sections of the piece which are for drums and male voice, marimbas and female voices, and then glockenspiels, whistling and piccolo. Only during the fourth and last section are the drums, marimbas, and glockenspiels played simultaneously, and then only by three players on each instrumental group, for a total of nine musicians. Together with two or three singers, and a piccolo player, a minimum of twelve or thirteen performers are needed.

Steve Reich 1971

③ HARD STICKS

TWO, THREE, OR FOUR DRUMMERS

The notation shows a sequence of drum beats across nine measures. Measures 1 through 8 are written on single staves, while measure 9 is a grand staff. The beats are indicated by stems with flags, and some notes have a '7' above them. A dynamic marking 'f' is present at the start of measure 1 and measure 9. The key signature has three sharps (F#, C#, G#).

The performance begins with two three or four drummers playing in unison at measure ①. When one drummer moves to the second measure and adds the second drum beat the other drummer(s) may either join him immediately or remain at bar ① for several repeats. This process of gradually substituting beats for rests within the pattern is continued with at least 6 or 8 repeats for each measure until all drummers have reached the fully constructed pattern at measure ⑧. At ⑨ only drummers one and two continue, and after several seconds of getting comfortable in close unison, drummer two begins to slightly increase his tempo so that after 20 or 30 seconds he has finally moved one quarter note ahead of drummer one, as shown at ⑩. The dotted lines indicate this gradual shift in phase relation between the two drummers. Throughout the piece the alternation of stems up and stems down indicate the alternation of right + left hands. The choice as to which hand is indicated by stems up or down is left to the performers.

⑩

DRUMMER 1

DRUMMER 2

COMPLETE RESULTING PATTERN OF DRUMMERS 1 AND 2

⑪

⑫

INDIVIDUAL RESULTING PATTERNS FOR DRUMMERS 3 AND 4 AND/OR MALE VOICES

This one quarter note out of phase relationship is maintained by drummers one and two while drummers three and four sing and/or play patterns they hear clearly emerging from the combination of the first two drummers. Two of these resulting patterns are written out above at ⑪ and ⑫, but others can be added or substituted in the blank bars. Though ⑪ and ⑫ are both four bars long, patterns of other lengths can obviously be heard. When singing these patterns a microphone is necessary in order to be heard. The voice should be used to imitate the exact sound of the drum patterns which may involve using syllables like "tak", "duk", and so forth. The voice(s) should enter softly and gradually increase in volume so that these patterns gradually rise to the surface of the music and then just as gradually subside by lowering the volume of the voice. A similar approach should be used when playing these patterns.

After all the resulting patterns have been sung and/or played, drummer two once again slightly increases his tempo so that he slowly moves another quarter note ahead of drummer one as shown at bar ⑬. Once again resulting patterns are performed and when completed drummer three enters in unison with drummer one as shown at ⑭. After several seconds in unison he slightly increases his tempo so that in 20 or 30 seconds he is one quarter note ahead of drummer one and therefore one quarter note behind drummer two as shown at measure ⑬.



⑪

DRUMMER 1

DRUMMER 2

COMPLETE RESULTING  
PATTERN OF DRUMMERS  
1 AND 2

⑫

INDIVIDUAL RESULTING  
PATTERNS FOR DRUMMERS  
3 AND 4 AND/OR MALE  
VOICES

⑬

⑭

DRUMMER 1

DRUMMER 2

DRUMMER 3

*f*



DRUMMER 1  
 DRUMMER 2  
 DRUMMER 3  
 COMPLETE RESULTING PATTERN OF DRUMMERS 1, 2 AND 3  
 (A)  
 (B)  
 (C)  
 (D)  
 INDIVIDUAL RESULTING PATTERNS FOR DRUMMER 4 AND/OR MALE VOICES

This relationship is maintained by drummers one, two and three while drummer four sings or plays patterns he hears clearly resulting from the combination of the first three drummers. Four such patterns are written above at (A), (B), (C) and (D) and others may be added or substituted in the blank bars. The method of singing or playing is the same as measures (10) and (11). After completing the resulting patterns drummer four enters directly, without phasing, one quarter note ahead of drummer two as shown at measure (14).

DRUMMER 1

DRUMMER 2

DRUMMER 3

DRUMMER 4

f

TWO, THREE, OR FOUR DRUMMERS

16

17

18

19

20

21

22

SWITCH TO SOFT STICKS

23

24

25

26

27

28

This relationship between all four drummers should be held for a minute or so and then, at a nod from one drummer, drummers two, three and four slightly increase their tempo so that in 30 - 45 seconds or so they are all in unison with drummer one at bar (15). At bar (16) all four, or only three or two drummers, playing in unison, begin to insert rests into the complete pattern in a reversing of the sort of process performed at measures (1) thru (8). As before, when one drummer inserts a rest and moves from one bar to the next, the other drummer(s) may either follow him immediately or wait for several repeats. At bar (21) the pattern has been reduced to 3 notes and bar (22), played only once, serves merely as a way of changing counts to arrive at (23). Here, while one drummer continues to play with hard sticks, the other(s) switches to soft sticks and re-enters which they allows the first drummer to drop out, turn his sticks around and join them. Bars (23) thru (28) then reconstruct the same rhythmic pattern, one beat at a time, with slightly different pitches.

SOFT STICKS

29

DRUMMER 1

SOFT STICKS

DRUMMER 2

30

Detailed description: This block contains the first system of musical notation for two drummers. Drummer 1's part is on a single staff, and Drummer 2's part is on a single staff. Both parts start at measure 29 and end at measure 30. The notation consists of eighth notes and quarter notes. Above measure 29 for Drummer 1 and above measure 30 for Drummer 2, the words 'SOFT STICKS' are written. The measures are separated by a dotted line.

31

DRUMMER 1

DRUMMER 2

DRUMMER 3

SOFT STICKS

32

Detailed description: This block contains the second system of musical notation for three drummers. Drummer 1 and Drummer 2 have parts on single staves, while Drummer 3 has a part on a single staff. The parts for Drummer 1 and Drummer 2 start at measure 31 and end at measure 32. The part for Drummer 3 starts at measure 32. The notation consists of eighth notes and quarter notes. Above measure 32 for Drummer 3, the words 'SOFT STICKS' are written. The measures are separated by a dotted line.

33

DRUMMER 1

DRUMMER 2

DRUMMER 3

34

Detailed description: This block contains the third system of musical notation for three drummers. Drummer 1, Drummer 2, and Drummer 3 each have parts on single staves. The parts for Drummer 1 and Drummer 2 start at measure 33 and end at measure 34. The part for Drummer 3 starts at measure 34. The notation consists of eighth notes and quarter notes. The measures are separated by a dotted line.

35

DRUMMER 1

switch to hard sticks

36

DRUMMER 2

switch to hard sticks

DRUMMER 3

DRUMMER 4

soft sticks

Detailed description: This block contains the fourth system of musical notation for four drummers. Drummer 1 and Drummer 2 have parts on single staves, while Drummer 3 and Drummer 4 have parts on single staves. The parts for Drummer 1 and Drummer 2 start at measure 35 and end at measure 36. The parts for Drummer 3 and Drummer 4 start at measure 36. The notation consists of eighth notes and quarter notes. Above measure 36 for Drummer 1 and Drummer 2, the words 'switch to hard sticks' are written. Above measure 36 for Drummer 4, the words 'soft sticks' are written. The measures are separated by a dotted line.



Handwritten musical score for four drummers (Drummer 1, 2, 3, 4) in 9/8 time. The score is divided into two systems. The first system contains measures 37 and 38. Drummer 1 and 2 are marked with "hand sticks". Drummer 3 is marked with "SWITCH TO HARD STICKS". Drummer 4 is marked with "hand sticks". The notation shows a complex rhythmic pattern with eighth and sixteenth notes.

Handwritten musical score for three drummers (Drummer 1, 2, 3) in 9/8 time. The score is divided into two systems. The first system contains measures 39 and 40. Drummer 1 is marked with "hand sticks". Drummer 2 is marked with "hand sticks". Drummer 3 is marked with "hand sticks". The notation shows a complex rhythmic pattern with eighth and sixteenth notes.

Handwritten musical score for three drummers (Drummer 1, 2, 3) in 9/8 time. The score is divided into two systems. The first system contains measures 41 and 42. Drummer 1 is marked with "hand sticks". Drummer 2 is marked with "hand sticks". Drummer 3 is marked with "hand sticks". The notation shows a complex rhythmic pattern with eighth and sixteenth notes.

At measure 29 drummers one and two are in unison on the new pattern, and drummer two once again gradually increases his tempo so as to slowly move one quarter note ahead as shown at 30 and, after holding for a little while, again phases ahead another quarter note as shown at 31. After several seconds drummer three enters with soft sticks at 32 in unison with drummer two and then slowly phases one quarter note ahead of drummer two as shown at 33. After several seconds he then phases another quarter note ahead of drummer two as shown at 34. This three drummer relationship is then maintained in measures 35 thru 38 except that drummer four doubles each of the others in turn with his soft sticks allowing each in turn to drop out for a moment, turn their sticks around, and re-enter with hard sticks. At bars 39 thru 41 each drummer, in turn, substitutes two C's for A's in his pattern, and at 42 all drummers switch together to all C's in place of their stems up A's. This three drummer relationship is then maintained in measures 43 thru 46 except that drummer four doubles each of the others in turn with his hard sticks allowing each in turn to drop out for a moment, turn their sticks around, and re-enter with soft sticks. At bar 47 each of the three drummers is doubled by one marimba player. As the marimbas gradually increase their volume from p to f, the drummers gradually fade out, leaving the marimba players alone at 48. After several seconds, marimba players two and three gradually increase, or decrease, their tempo so that in 15 seconds or more they are in unison with player one as shown at 49.

43 SWITCH TO SOFT STICKS

44 SOFT STICKS

DRUMMER 1

DRUMMER 2 SWITCH TO SOFT STICKS

DRUMMER 3

DRUMMER 4 hand sticks

45

46

DRUMMER 1

DRUMMER 2 SOFT STICKS

DRUMMER 3 SWITCH TO SOFT STICKS

DRUMMER 4

soft sticks

47

48

DRUMMER 1

DRUMMER 2

DRUMMER 3

MARIMBA PLAYER 2 SOFT RUBBER MALLETS

MARIMBA PLAYER 1 SOFT RUBBER MALLETS

MARIMBA PLAYER 3 SOFT RUBBER MALLETS

f

f

f

(49) (50)

MARIMBA 2  
PLAYER 1

MARIMBA 2  
PLAYER 2

MARIMBA 2  
PLAYER 3

(51) (52)

MARIMBA 2  
PLAYER 1

MARIMBA 2  
PLAYER 2

MARIMBA 1  
PLAYER 3

(53)

MARIMBA 2  
PLAYER 1

MARIMBA 2  
PLAYER 2

MARIMBA 1  
PLAYER 3

COMPLETE RESULTING  
PATTERN OF ALL  
MARIMBAS

(A) (B)

INDIVIDUAL RESULTING  
PATTERNS FOR  
FEMALE VOICES

(C)

After several seconds in unison players 2 and 3 gradually fade out leaving player 1 alone at measure (50). In a few seconds he is joined by player 2, on marimba 2 at bar (51), and a few seconds later, at (52), they are joined by player 3 on marimba 1. Player 3 then slightly increases his tempo so as to gradually move one quarter note ahead of the other two. At bar (53) two, three, or more female singers sing patterns resulting from this combination of three marimbas which is written out in full and called "complete resulting pattern of all marimbas". The singers not only double the exact notes and rhythms set up by the marimbas, but also use their voices to precisely imitate the sound of these instruments by using a soft consonant attack like "B" or "D" with a "U" (as in "you") vowel sound. (A) is a duet which may be joined with (B) to form a trio. In (C) all the singers may sing one after the other so that the pattern is maintained constantly, one singer breathing while another sings. Other resulting patterns may be added or substituted in the blank bars.



(54)

MARIMBA 2  
PLAYER 1

MARIMBA 2  
PLAYER 2

MARIMBA 1  
PLAYER 3

MARIMBA 3  
PLAYER 4

(55)

MARIMBA 2  
PLAYER 1

MARIMBA 2  
PLAYER 2

MARIMBA 1  
PLAYER 3

MARIMBA 3  
PLAYER 4

COMPLETE RESULTING  
PATTERN FOR  
ALL MARIMBAS

INDIVIDUAL RESULTING  
PATTERNS FOR  
FEMALE VOICES

(A)

(B)

(C)

(D)

(E)

(F)

At bar (54) player 4 on marimba three enters in unison with player 3 on marimba one. Player 4 then slightly increases his tempo so as to gradually move one quarter note ahead of player 3. This four marimba relationship is maintained at (55) while the female singers again sing resulting patterns using their voices in the same way as at bar (53). Patterns (A), (B) and (C) are a gradually changing duet. (C) and (D) may be combined to form a trio, as can (E) and (F). Again, other patterns resulting from the four marimba combination may be added or substituted, and patterns may be sung in some other order. After the singers have finished, players 3 and 4 slightly increase (or decrease) their tempo so that they slowly move into unison with players 1 and 2 at bar (56).

After several seconds of maintaining their unison relation at (56), players 3 and 4 gradually fade out leaving only players 1 and 2 at bar (57). At bar (58) players 3 and 4 re-enter on marimba two with new pitches, and at (59) are joined by player 5 on marimba one who then begins to slightly increase his tempo until after 15-30 seconds he is finally one quarter note ahead of the other four players, as shown at bar (60).

Once again the resulting patterns (of the 5 marimba relationship at bar (60)) are sung by the female singers using their voices to sound like the marimbas, as at bars (53) and (55). Pattern (A) may be combined with the duet (B) to form a trio, (C) may be sung with (B) for a second trio, and (C) and the duet (D) may be combined for a third. (E) may be either a duet, or two singers may alternate the lower C's to maintain them constantly while the third sings the F's.

At bar (61) player 6 enters on marimba three in unison with player 5, and after a few seconds of getting comfortable, slightly increases his tempo so as to slowly move one quarter note ahead of player 5, as shown at bar (62).

1

(60)

MARIMBA 2  
PLAYER 1

MARIMBA 2  
PLAYER 2

MARIMBA 2  
PLAYER 3

MARIMBA 2  
PLAYER 4

MARIMBA 1  
PLAYER 5

COMPLETE RESULTING  
PATTERN OF ALL  
MARIMBAS

(A)

(B)

(C)

(D)

(E)

INDIVIDUAL RESULTING  
PATTERNS FOR  
FEMALE VOICES

This block contains the musical notation for measures 60 and 61. It features five staves for marimbas (labeled MARIMBA 2 PLAYER 1-4 and MARIMBA 1 PLAYER 5) and a staff for the complete resulting pattern of all marimbas. Below these are four staves for individual resulting patterns for female voices, labeled (A), (B), (C), and (D). The notation includes various musical symbols such as notes, rests, and bar lines. The key signature is one sharp (F#) and the time signature is 4/4. The score is handwritten in black ink on white paper.

(61)

MARIMBA 2  
PLAYER 1

MARIMBA 2  
PLAYER 2

MARIMBA 2  
PLAYER 3

MARIMBA 1  
PLAYER 4

MARIMBA 1  
PLAYER 5

MARIMBA 3  
PLAYER 6

This block contains the musical notation for measures 61 and 62. It features six staves for marimbas (labeled MARIMBA 2 PLAYER 1-3, MARIMBA 1 PLAYER 4-5, and MARIMBA 3 PLAYER 6). The notation includes various musical symbols such as notes, rests, and bar lines. The key signature is one sharp (F#) and the time signature is 4/4. The score is handwritten in black ink on white paper.



(62)

MARIMBA 2  
PLAYER 1

MARIMBA 2  
PLAYER 2

MARIMBA 2  
PLAYER 3

MARIMBA 2  
PLAYER 4

MARIMBA 1  
PLAYER 5

MARIMBA 3  
PLAYER 6

COMPLETE RESULTING  
PATTERN OF ALL  
MARIMBAS

INDIVIDUAL RESULTING  
PATTERNS FOR  
FEMALE VOICES

(A)

(B)

(C)

(D)

(E)

(F)

(G)

Here, once again, resulting patterns are sung. (A) is a duet. (B) and (C) may be combined to form a trio, as can (C) and (D). (E) is a duet which may be combined with (F) for a trio, and (G) is a trio by itself.

At measure (63) players 7, 8 and 9 enter immediately out of phase and resulting patterns are sung again for the last time. (A), (B) and (C) are duets, while (D) and (E) may form a trio. (F) should be simply sung as a solo for a while and then very gradually faded out so that it is clearly heard continuing in the ongoing marimbas.

(63)

1

MARIMBA 2  
PLAYER 1

MARIMBA 2  
PLAYER 2

MARIMBA 2  
PLAYER 3

MARIMBA 2  
PLAYER 4

MARIMBA 2  
PLAYER 7

MARIMBA 1  
PLAYER 5

MARIMBA 1  
PLAYER 8

MARIMBA 3  
PLAYER 6

MARIMBA 3  
PLAYER 9

COMPLETE RESULTING  
PATTERN OF ALL  
MARIMBAS

INDIVIDUAL RESULTING  
PATTERNS FOR  
FEMALE VOICES

Handwritten musical score for Marimba players. The score is organized into two systems, labeled 64 and 65. Each system contains staves for multiple players, with labels such as "MARIMBA 2 PLAYER 1", "MARIMBA 2 PLAYER 2", "MARIMBA 2 PLAYER 3", "MARIMBA 2 PLAYER 4", "MARIMBA 2 PLAYER 7", "MARIMBA 1 PLAYER 5", "MARIMBA 1 PLAYER 8", "MARIMBA 3 PLAYER 6", and "MARIMBA 3 PLAYER 9". The notation includes various musical symbols, including notes, rests, and dynamic markings like "f" (forte) and "ff" (fortissimo). The score is written in a cursive, handwritten style.

At bar 64 player 1 very gradually fades out, and after a minute or so, player 2 does likewise at bar 65.



(66) (67)

MARIMBA 1  
PLAYER 3

MARIMBA 2  
PLAYER 4

MARIMBA 2  
PLAYER 7

MARIMBA 1  
PLAYER 5

MARIMBA 1  
PLAYER 8

MARIMBA 3  
PLAYER 6

MARIMBA 3  
PLAYER 9

(68) (69)

MARIMBA 2  
PLAYER 7

MARIMBA 1  
PLAYER 8

MARIMBA 3  
PLAYER 9

MEDIUM HARD RUBBER MALLETS

\* GLOCK. 1  
PLAYER 3

\* GLOCK. 2  
PLAYER 1

\* GLOCK. 3  
PLAYER 2

At bar (66) players 5 and 6 gradually fade out together, and are followed after a moment of so by players 3 and 4 at bar (67). Players 7, 8, and 9 continue alone at (67), and are doubled exactly by glockenspiel players 3, 1, and 2 who enter softly at (68), and gradually increase their volume while the marimbas gradually fade out leaving the glockenspiels alone at bar (69). After several seconds players 1 and 2 slightly increase (or decrease) their tempo so that in 15-30 seconds they are in unison with player 3 at bar (70)

\*Please note that the glockenspiels sound 2 octaves above where written.

Handwritten musical score for three players (Glock. 1, 2, 3) and three players (PLAYER 3, 1, 2). The score is divided into measures 70 and 71. The notation includes various rhythmic values (quarter, eighth, sixteenth notes) and rests. The key signature is one sharp (F#).

Handwritten musical score for three players (Glock. 1, 2, 3) and three players (PLAYER 3, 1, 2). The score is divided into measures 72 and 73. The notation includes various rhythmic values (quarter, eighth, sixteenth notes) and rests. The key signature is one sharp (F#). The text "WOOD MALLET" is written above the staves for measures 72 and 73.

Handwritten musical score for three players (Glock. 2, 1, 2) and three players (PLAYER 1, 2, 3). The score is divided into measures 74 and 75. The notation includes various rhythmic values (quarter, eighth, sixteenth notes) and rests. The key signature is one sharp (F#). The text "WOOD MALLET" is written above the staves for measures 74 and 75.

After several seconds players 1 and 2 gradually fade out leaving player 3 alone at bar (71). He is re-joined by players 1 and 2 both playing glockenspiel 2 at measure (72). Player 3 then very gradually fades out leaving players 1 and 2 only at bar (73). At (74) player 3 re-enters in unison with player 1, and after several seconds slightly increases his tempo so that in 10-20 seconds he is one quarter note ahead of player 1 as shown at (75).

Handwritten musical notation for measures 76 and 77. The notation is arranged in four staves, each labeled on the left:

- GLOCK. 2 PLAYER 1
- GLOCK. 2 PLAYER 2
- GLOCK. 1 PLAYER 3
- GLOCK. 3 PLAYER 4

Measures 76 and 77 are indicated by circled numbers at the top of the first two staves. The notation shows rhythmic patterns with eighth and sixteenth notes, and rests, separated by dotted lines.

Handwritten musical notation for measures 78 and 79. The notation is arranged in four staves, each labeled on the left:

- GLOCK. 2 PLAYER 1
- GLOCK. 2 PLAYER 2
- GLOCK. 1 PLAYER 3
- GLOCK. 3 PLAYER 4

Measure 78 is indicated by a circled number at the top of the first staff. Below the four staves, there is a section labeled "COMPLETE RESULTING PATTERN FOR ALL GLOCKENSPIELS" followed by a staff with a circled letter (A). Below this, there are three more staves, each with a circled letter (B, C, and D) and a blank staff at the bottom.

INDIVIDUAL RESULTING PATTERNS FOR WHISTLING

Player 4 enters in unison with player 3 at measure 76 and after several seconds slightly increases his tempo so that in 10-20 seconds he is one quarter note ahead of player 3 as shown at 77. After several seconds more player 4 changes the notes of his pattern as shown at 78 and patterns resulting from this four glockenspiel relationship are whistled. Just enough volume is used so as to cause the individual resulting patterns to gradually rise to the surface of the music and then, to slowly fade out enabling the listener to hear them continuing in the glockenspiels. Generally a microphone is necessary in order to do this and care should be taken to whistle across the mike in order to avoid wind noise. Patterns A, B, C and D may be performed, or others may be added or substituted in the blank bars.

(79)

Glock. 2  
PLAYER 1

Glock. 2  
PLAYER 2

Glock. 1  
PLAYER 3

Glock. 3  
PLAYER 4

(80)

Glock. 2  
PLAYER 1

Glock. 2  
PLAYER 2

Glock. 1  
PLAYER 3

Glock. 3  
PLAYER 4

Complete Resulting  
Pattern for  
All Glockenspiels

(A)

(B)

(C)

Individual Resulting  
Patterns for  
Whistling and Piccolo \*

At bar (79) player 1 changes the notes in his pattern as player 4 did at bar (78). Player 3 does likewise at (80) and patterns resulting from this four mainline relationship are whistled and played by a piccolo. The whistling and piccolo should be in unison and both musicians should perform the resulting patterns as outlined below bar (78).

\* Please note that the whistling and piccolo sound in unison with the glockenspiels, which is to say two octaves above where they are notated. In patterns (A) and (B) the high D# and C# may be too high to whistle, in which case these notes should only be played by the piccolo. Similarly (C) may be too low for the piccolo to sound like the glockenspiels, in which case this pattern should be whistled only.



Handwritten musical score for four players (Glock. 2, Player 1; Glock. 2, Player 2; Glock. 1, Player 3; Glock. 3, Player 4) showing measures 81 and 82. The notation includes notes, rests, and dynamic markings.

Handwritten musical score for four players (Glock. 2, Player 1; Glock. 2, Player 2; Glock. 1, Player 3; Glock. 3, Player 4) showing measures 83 and 84. The notation includes notes, rests, and dynamic markings.

Handwritten musical score for four players (Glock. 2, Player 1; Glock. 2, Player 2; Glock. 1, Player 3; Glock. 3, Player 4) showing measures 85 and 86. The notation includes notes, rests, and dynamic markings.

After the resulting patterns are completed at bar (80), players 3 and 4 slightly increase (or decrease) their tempo so that in 15-20 seconds they are in unison with players 1 and 2 as shown at (81). Players 3 and 4 then gradually fade out, leaving players 1 and 2 only at bar (82). Player 2 then changes the notes in his pattern as shown at (83) and is doubled by player 3 at bar (84). Player 3 then slightly increases his tempo so that in 10-20 seconds he is one quarter note ahead of players 1 and 2 as shown at (85). Player 4 enters in unison with player 3 at (86) and after a few seconds slightly increases his tempo so that in 10-20 seconds he is one quarter note ahead of player 3 as shown at measure (87).

(87)

GLOCK. 2  
PLAYER 1

GLOCK. 2  
PLAYER 2

GLOCK. 1  
PLAYER 3

GLOCK. 3  
PLAYER 4

COMPLETE RESULTING  
PATTERN OF ALL  
GLOCKENSPIELS

(A)

(B)

(C)

INDIVIDUAL RESULTING  
PATTERNS FOR  
WHISTLING and PICCOLO

(98)

GLOCK. 2  
PLAYER 1

GLOCK. 2  
PLAYER 2

GLOCK. 1  
PLAYER 3

GLOCK. 3  
PLAYER 4

(99)

Resulting patterns are performed once again by piccolo and whistling in unison at measure (87). The high C's and D's in patterns (A) and (B) may prove to be too high to be whistled, in which case the piccolo player performs the complete patterns while the musician whistling omits these notes. Pattern (C) may be played by the piccolo alone. When the resultant patterns are completed, players 3 and 4 change their notes together while maintaining their rhythmic position as shown at (88). Player 1 then slowly fades out leaving players 2, 3 and 4 at bar (89).

Player 1 re-enters at bar (90) with the same pitches as players 3 and 4, but in his original rhythmic position, in unison with player 2. Player 2 then gradually fades out leaving players 1, 3, and 4 alone at (93). This relationship is maintained for perhaps a minute or so, and then players 3 and 4 slightly increase (or decrease) their tempo so that in 15-20 seconds they are in unison with player 1 at measure (92).

Bars (93) through (100) may be performed by all three, or only two of the players. Rests are inserted in the pattern, one at a time, similar to bars (6) through (21) for the drums, until the pattern has been reduced to a single pulse at (100). As before, when one performer inserts a rest and moves from one bar to the next, the other performers may either follow him immediately, or wait for several repeats. Bar (101), played only once, serves merely as a way of changing counts to arrive at (102).

(102) WOOD MALLETS

2 GLOCKS.

2 MARIMBAS

MEDIUM SOFT RUBBER Mallet for stems down, MEDIUM HARD WOVEN YARA MALLETS for stems up.

2 DRUMMERS

SOFT STICK for stems down, HARD STICK for stems up

(104)

2 GLOCKS.

2 MARIMBAS

2 DRUMMERS

(105)

(106)

2 GLOCKS.

2 MARIMBAS

2 DRUMMERS

(107)

(108)

2 GLOCKS.

2 MARIMBAS

2 DRUMMERS

(109)

At (102) two players on glockspiels are joined by two Marimba players and two drummers. Any one player, on any of the three instruments may add the first new beat at bar (103) and the other players should, only after several repeats of bar (102), join him. This gradual substitution of beats for rests is continued until all performers are playing the fully constructed pattern at measure (109).



The musical score is written for six instruments: Glock. 1, Glock. 2, Marimba 1, Marimba 2, Drums 1, and Drums 2. It is divided into two systems. The first system contains measures 110 and 111, and the second system contains measures 112 and 113. Each instrument part is written on a five-line staff with a key signature of one sharp (F#) and a common time signature (C). The notation includes eighth and sixteenth notes, rests, and dynamic markings. The score illustrates a gradual phasing process where instruments move ahead of each other by quarter notes over time.

After several seconds of getting comfortable at bar (109), marimba 1 slightly increases his tempo so that in 10-20 seconds he is one quarter note ahead of marimba 2, as shown at (110). After several seconds Drums 1 also increases his tempo slightly so as to gradually move one quarter note ahead of Drums 2, as shown at (111). Glockenspiel 1 then does likewise gradually moving a quarter note ahead of glockenspiel 2 as shown at (112). This process of gradually phasing ahead one quarter note is then repeated first by marimba one, who is then two quarter notes ahead of marimba 2 at (113), and then by Drums 1 from (113) to (114), and by glockenspiel 1 from (114) to (115).

114

GLOCK. 1

GLOCK. 2

MARIMBA 1

MARIMBA 2

DRUMS 1

DRUMS 2

115

116

Glock. 1

Glock. 2

Glock. 3

MARIMBA 1

MARIMBA 2

MARIMBA 3

DRUMS 1

DRUMS 2

DRUMS 3

117

At measure (116) glockenspiel 3, marimba 3, and drums 3 enter in rhythmic unison with glockenspiel 1, marimba 1, and drums 1, respectively. After several seconds of getting comfortable and establishing a solid unison, marimba 1 slightly increases his tempo so that in 10-20 seconds he is one quarter note ahead of marimba 3 (and thus 3 quarter notes ahead of marimba 2) as shown at (117). After several seconds drums 1 does likewise from (117) to (118) and is followed by glockenspiel 1 from (118) to (119). After several seconds more marimba 1 moves another quarter note ahead as shown at (120) and is followed by drums 1 from (120) to (121) and by glockenspiel 1 from (121) to (122).

Handwritten musical score for measures 120 and 121. The score includes staves for Glock. 1, Glock. 2, Glock. 3, Marimba 1, Marimba 2, Marimba 3, Drums 1, Drums 2, and Drums 3. Measures 120 and 121 are marked at the top of the first two staves. The notation shows various rhythmic patterns for each instrument, with some measures featuring rests or specific articulation marks.

At measure (122) patterns resulting from the combination of marimbas 1, 2, and 3, and drums 1, 2, and 3 are sung by voices, either all female, or with males doubling the drums, and females doubling marimbas. A piccolo simultaneously doubles patterns resulting from the combination of glockenspiels 1, 2, and 3.

Voice pattern (A) for females may be performed by one singer for a full breath, then a second while the first breathes, and so on. (B) is a duet for two females, or male voice on the C's with female voice on the E's. Piccolo pattern (A) may be performed simultaneously with both singers and piccolo player maintaining their patterns for a full breath. While they are resting, voice pattern (C) may be performed by a third male or female voice. Piccolo pattern (B) may be played simultaneously with vocal pattern (C) with the piccolo player then resting during vocal pattern (B).

After these and/or other resulting patterns have been sung and played for a good while, all performers end together.



(122)

Glock. 1

Glock. 2

Glock. 3

MARIMBA 1

MARIMBA 2

MARIMBA 3

DRUMS 1

DRUMS 2

DRUMS 3

COMPLETE RESULTING  
PATTERN OF ALL  
GLOCKENSPIELS

COMPLETE RESULTING  
PATTERN OF ALL  
MARIMBAS

COMPLETE RESULTING  
PATTERN OF ALL  
DRUMS

INDIVIDUAL RESULTING  
PATTERNS FOR  
VOICES

INDIVIDUAL RESULTING  
PATTERNS FOR  
PICCOLO

This block contains the handwritten musical notation for the percussion section. It consists of 14 staves. The first three staves are for Glockenspiels (Glock. 1, 2, 3), each with a treble clef and a key signature of one sharp (F#). The next three staves are for Marimbas (MARIMBA 1, 2, 3), each with a treble clef and a key signature of one sharp. The following three staves are for Drums (DRUMS 1, 2, 3), each with a treble clef and a key signature of one sharp. The next three staves show the 'COMPLETE RESULTING PATTERN' for Glockenspiels, Marimbas, and Drums respectively, with treble clefs and a key signature of one sharp. The final two staves show 'INDIVIDUAL RESULTING PATTERNS FOR VOICES' and 'PICCOLO', both with treble clefs and a key signature of one sharp. The notation includes various rhythmic values (quarter, eighth, and sixteenth notes), rests, and dynamic markings. There are also some circled letters (A, B, C) and numbers (122) indicating specific measures or sections.