

Mountain Language

for Alphorn, Cowbells and Electronics

1998
revised 2000

James Wood

James Wood

Mountain Language (1996 - 98, revised 2000)

Commissioned by IRCAM

Musical Assistant: Carl Faia

Instrumentation:

Alphorn (in F)

Cowbells (and rainstick)

Electronics (triggered by MIDI-keyboard player)

Duration: 25 minutes approx.

First performance: Académie d'Eté, IRCAM, 20 June, 1998

Solistes de l'EIC -

Benny Sluchin (alphorn); Michel Cerutti (cowbells) - directed by the composer

Acknowledgements

I am grateful to John Kenny, who recorded the alphorn samples which provided the basis for all the alphorn resynthesises used in the work, and for his help and advice regarding alphorn technique.

I would like to thank Carl Faia for his work and sustained help throughout the eighteen months of production and realization of Mountain Language.

Principal electronic requirements

3 Alesis DM5 MIDI-interfaces for cowbells (total 27 inputs - 1 output)

2 EMU e-64 Samplers, each with 64Mbytes RAM, and each with its own media storage device (Jaz, Zip or MO Drive)

Power Mac G3 with multi-channel Sound Card/Interface (eg MOTU 2408) - 8 outputs needed

Additional 9th output (via an additional 2408) sends click-track to percussionist's headphones, as well as to light-boxes for alphorn player and keyboard player

Max MSP Software

Master Keyboard

Max Patch and soundfiles, as well as Sampler Disks available from the composer, together with the performing material

Amplification

4 microphones for cowbells

1 close-microphone for alphorn, opened and closed by alphorn player via a balanced line footpedal

2 microphones for rainstick

Reverb unit for alphorn close-mic, levels to be constantly controlled by sound engineer

8 Loudspeakers with appropriate amplifiers

2 Bass Bins

Mixing Desk

Inputs: 2 from e-64.1 (from e64 Main Outputs)

8 from e-64.2 (from e64 Main and Sub Outputs)

8 from computer

1 from computer click-track

4 from cowbells

1 from alphorn close-mic

2 from rainstick

Total: 26 inputs maximum

Outputs: 8 to loudspeakers

Aux: 3 to click (headphones and 2 lightboxes)

2 to bass bins

1 or 2 to alphorn fold-back

Possible mixed-down foldback for alphorn

Percussionist may need a mix of some or all of the audio from the computer and the samplers, as well as the click track, sent to his headphones

MIDI Lighting Desk

The lighting is controlled from the keyboard (via MIDI) as an integral part of the Max patch.
However the work can be performed without lighting if necessary.

MIDI setup

MIDI-cowbells

27 bells

pickup on each bell feeds 27 inputs of 3 x Alesis DM5
(each DM5 has 12 inputs, hence all 12 inputs are used on DM5#1 and #2, and the DM5#3 uses just 3 inputs)

3 MIDI OUT's to MIDI MERGE#1 (3->1) INs (situated by the bells)

MIDI MERGE#1 OUT to MIDI LINE DRIVER SEND

MIDI LINE DRIVER RECEIVE (situated by the samplers/desk) to MIDI MERGE#2 (input#1)

[input#2 will come from the Mac, see below]

MIDI MERGE#2 OUT to MIDI THRU IN

MIDI THRU OUT#1 to E62#1 IN

MIDI THRU OUT#2 to E64#2 IN

DM5 Settings

The relationship between the exact position of the pickup on each bell and the Gain setting in the DM5 is extremely critical and delicate. In order for each cowbell to sound well, the pickup should be placed as far as possible from the lip of the bell, thus allowing it to resonate. However, the further from the lip of the bell the pickup is placed, the less energy is sent to the DM5, and therefore the higher the required gain setting. The precise position of the pickup on each bell will depend on the nature of the bell that is used, and consequently so will the associated gain settings. The table on page 8 shows the approximate positions of the pickups used on the composer's own set of bells, plus the associated DM5 settings. Blank spaces are provided to keep track of inevitable variations from this as demanded by different bells. The other parameters (Xtalk, VCrv, Decay and Noise) should be found to be satisfactory in most cases.

Keyboard/Mac

MIDI OUT to Roland USB MIDI interface IN

Roland USB MIDI interface OUT to MIDI MERGE#2 (input2)

(see above - this will allow Preset changes triggered by the keyboard player to reach the samplers)

Roland USB OUT to Mac USB IN

Speaker setup

1	2
8	3
7	4
6	5

Care should be taken to ensure that the speakers surround the audience at equal azimuths.

The ideal is speaker 1 22.5° left of centre stage, speaker 2 22.5° right of centre stage, and then continuing round in a clockwise direction at 45° intervals. The distance of each speaker from the centre point of the hall should be as equal as possible. If the hall is very long, speakers 3, 4, 7 and 8 may need to be delayed by an appropriate amount.

Audio setup

2 outs from E64#1 to front speakers (1 & 2)

4 cowbells mics to front speakers (1 & 2)

2 rainstick mics to front speakers (1 & 2)

(stereo image of rainstick needs to be preserved, hence the 2 mics)

1 alphorn close-mic to front speakers (1 & 2)

1 Roland balanced line footpedal (for alphorn player to open and close mic)

8 outs from E64#2 to speakers 1 - 8 as follows:

MAIN L -> sp1

MAIN R -> sp2

SUB 1 L -> sp3 (possibly+sp2)

SUB 1 R -> sp4 (possibly+sp5)

SUB 2 L -> sp5

SUB 2 R -> sp6

SUB 3 L -> sp7 (possibly+sp6)

SUB 3 R -> sp8 (possibly+sp1)

8 outs from Mac (MOTU 2408) to speakers 1 - 8 as follows:

out1 -> sp1

out2 -> sp2

out3 -> sp3

out4 -> sp4

out5 -> sp5

out6 -> sp6

out7 -> sp7

out8 -> sp8

click-track (channel 9) from Mac (second MOTU 2408) to aux 1 (percussionist headphones), aux 2 (alphorn lightbox) and aux 3 (keyboard player's lightbox) - note that output levels of each aux may need to be different/independent.

General Notes

Microtones

↑	Eighth-tone sharp
↓	Eighth-tone flat
†	Quarter-tone sharp
#	Three-eighth-tone sharp
‡	Five-eighth-tone sharp
##	Three-quarter-tone sharp

H Hauptstimme

Performance Logistics

Mountain Language needs a large space, with a large stage area, in order that the alphorn can be positioned at some distance from the audience. For example, if a traditional orchestral stage is used, the alphorn player should be at the back of the stage, in the position normally occupied by the percussion or even the chorus. Only in this way can a satisfactory balance be achieved between the live alphorn and the computer sounds. The cowbells, however, can be placed near the front of the stage. The performers are coordinated by a click-track, which is sent to the alphorn via a light-box and to the percussionist via headphones. The keyboard player should be positioned in the centre of the hall, next to the sound desk. The keyboard player triggers all the soundfiles from the computer together with their associated click-tracks, as well as the sampler preset changes and the lighting desk preset changes (if lighting is used in the performance). The keyboard player should also be fed the click track via an additional lightbox.

The electronic sounds come from two different sources:

- 1) Two EMU e-64 samplers are triggered by the cowbells (via the 3 DM5s).
 - e-64.1 (not notated in the score) sounds always in rhythmic unison with the cowbells. The sounds (stereo) should be fed through speakers 1 and 2, and possibly also to speakers 8 and 3 for a wider stereo spread.
 - The cowbells themselves should be (slightly) amplified, and similarly fed to the same speakers, so that their sounds blend and balance perfectly with the sounds of e-64.1. The intention is to achieve a composite timbre, where the sound of the cowbells is embedded in the sound of the e-64.1 sounds.
 - e-64.2 plays sequences (of between just 2 or 3 notes and longer sequences of up to 7 or 8 seconds) modelled on birdsong. These sounds (also stereo) should be fed through all 8 outputs (MAIN, SUB 1, SUB 2, SUB 3) and distributed to all 8 speakers around the Hall. The technical set-up page shows which outputs should go to which speakers.
- 2) All the other sounds are triggered direct from the computer by a Master Keyboard, via a Max Patch run on a Power Mac G3. These sounds are all spatialised (see Map of Peaks on page 7) and therefore are all multi-channel files. Consequently the Power Mac should be equipped with a multi-channel sound card and interface (such as MOTU 2408) with at least 8 analog outputs. The click-track is sent from the computer via an additional 9th channel, which will require an additional 2408 or equivalent. The computer not only plays the spatialised sounds, but also triggers the Preset changes in the samplers, and the lighting desk. The MIDI should therefore be set up accordingly (See page 3).

Lighting

The performers should have lit music stands, since the lighting plan (contained in the central Max Patch) involves certain lighting effects which are potentially disturbing to the performers.

Loading of e64 Samplers

Both of the e64s need to be reloaded during the piece. This should happen around bar 100, as soon as the previous passage of birdsong has finished. It takes about one minute to load 64Mbytes from a Jaz Drive, and there is a gap of about 2 minutes between bar 100 and the next e64/cowbell entry in bar 121. Although this margin should be fairly safe, the technician charged with this responsibility should be ready to re-load as soon as possible after bar 100. Once the Banks have reloaded, they will automatically be ready with the first Preset of the second Bank (II:000) so no further action will be needed. Alternatively, if two eIVs (each with 128Mbytes RAM) are available, then both Banks can be loaded at the same time, making reloading unnecessary.

Birdsong Notation

Because of the complexity of the birdsong (e64.2), this is notated only approximately in the score.

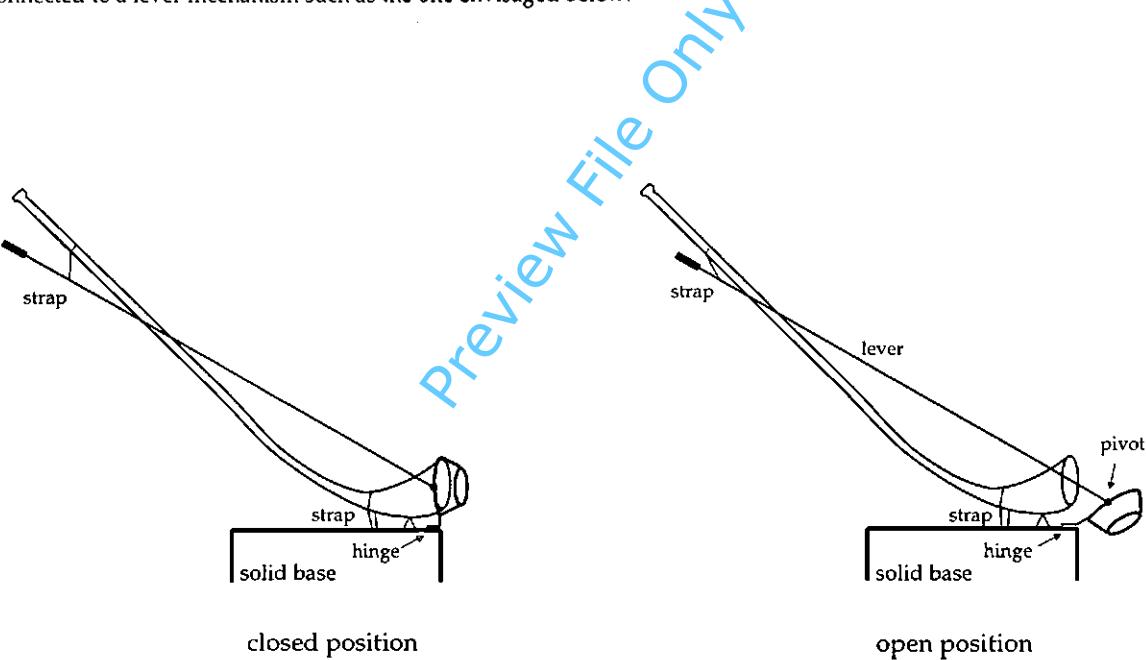
My priority has been to indicate as accurately as possible the start and stop points of each fragment, as well as its contour. Wherever possible I have included accidentals (to the nearest eighth-tone), but often (in the case of extremely fast passages) these have been omitted in order to preserve a more comprehensible 'overview' of the main rhythmic progression of the score.

Notes for Alphorn

	flutter-tongue
	inhalation
	exhalation
	sustain 'ph' sound with vocal cavity shaped as for vowel 'i'
	sustain 'ss' sound with vocal cavity shaped as for vowel 'o'
	as above, with vocal cavity changing gradually from vowel 'i' to vowel 'o'

Mute

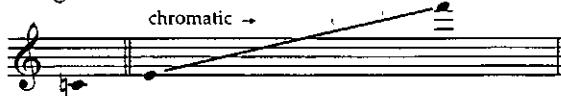
If possible a kind of plunger mute should be constructed, whose shape and material can be determined by experiment. In order for the player to be able to operate (open and close) the mute from his playing position, this mute will need to be connected to a lever mechanism such as the one envisaged below:



- open
- half-closed
- +
- gradual change from open to closed

Notes for Cowbells

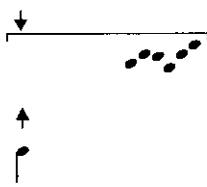
Range:



The chromatic set should be mounted horizontally, in the normal manner, but the low C3 should be hung vertically in a convenient position above the low end of the keyboard

The cowbells trigger 2 EMU e64 Samplers. MIDI pick-ups are attached to each bell, and fed to the samplers via the DM5 modules. e64.1 plays harmonics extracted from samples of cowbells, churchbells and alphorn arranged non-linearly in many different permutations. The permutations change constantly (with each change of Preset). Whilst these sounds mix together with the live (slightly amplified) cowbells to create many composite timbres of great complexity, they are always in rhythmic unison with the cowbells, and for this reason are not notated in the score.

e64.2, however, consists of sequences modelled on birdsong - these sequences range in length between two or three notes, and longer sequences lasting several seconds. Because of the complexity of the birdsong this is notated only approximately in the score. My priority has been to indicate as accurately as possible the start and stop points of each fragment, as well as its contour. Whenever possible I have included accidentals (to the nearest eighth-tone), but often these have been omitted in order to preserve a more comprehensible 'overview' of the main rhythmic progression in the score.



The upward arrow from the cowbell note indicates the trigger notes in the cowbells part. The downward arrow directly above it indicates the start of the sequence that is triggered. The bracket shows the start and stop point of each sequence. Often (as in this case) there is a delay between the trigger point and the start of the audible sequence - this delay can range between a few milliseconds up to 7 or 8 seconds - these delays are built in to the sampler presets, and the gap between the arrow and the start of the notes shows approximately how much delay to expect in each case.

Mallets

The main problem that will affect the choice of mallets is that much of the music requires extremely light, delicate playing, even in quite fast passages. For this reason light rubber mallets (such as Musser M3 and M4) are suggested. The composer has found a combination of these to be quite successful. For example:

Outside right:	M4
Inside right:	M3
Left (both):	M3

For passages marked 'brillante' a harder, even plastic, mallet could be used for the outside right, with M4s for the others. For the final section (bar 196 onwards) a softer, wound mallet will be needed for the outside left - the composer recommends a Musser M16 for this. Beware of using mallets that are too heavy, as is the case with most vibraphone mallets. Also needed is a small wooden dowel - 2 cm thick and 22cm long - this is used (by the right hand) for very short tremolandi inside the bell. Occasionally this is used (non trem) on the lip of the bell. It is important that this dowel be of ordinary ramin or softwood, and should not be lacquered or varnished, in order to produce a rather mellow sound.

Tails-up, tails-down, small notes

Throughout most of the score, the main rhythms are notated in large notes, (tails up). These main rhythms are ornamented by the small notes (tails down). With one or two exceptions (eg bars 30 and 65) the small notes have no official value, and can be fitted around the main notes with a certain degree of freedom. Small notes usually colour or ornament the preceding main note. In this case the small notes can be played at any point during the value of the preceding note. If the small notes follow a rest, then they should be played within the duration of that rest. Often this means that the small notes can be very slightly separated from their preceding main note. The performer should try to vary the temporal relationship between main note and small notes as each musical context suggests. The small notes need not always be played very fast, especially when they are marked 'pp'. The dynamic of the small notes is generally at least one degree below that of the main notes around it, unless specifically marked otherwise.

Rainstick

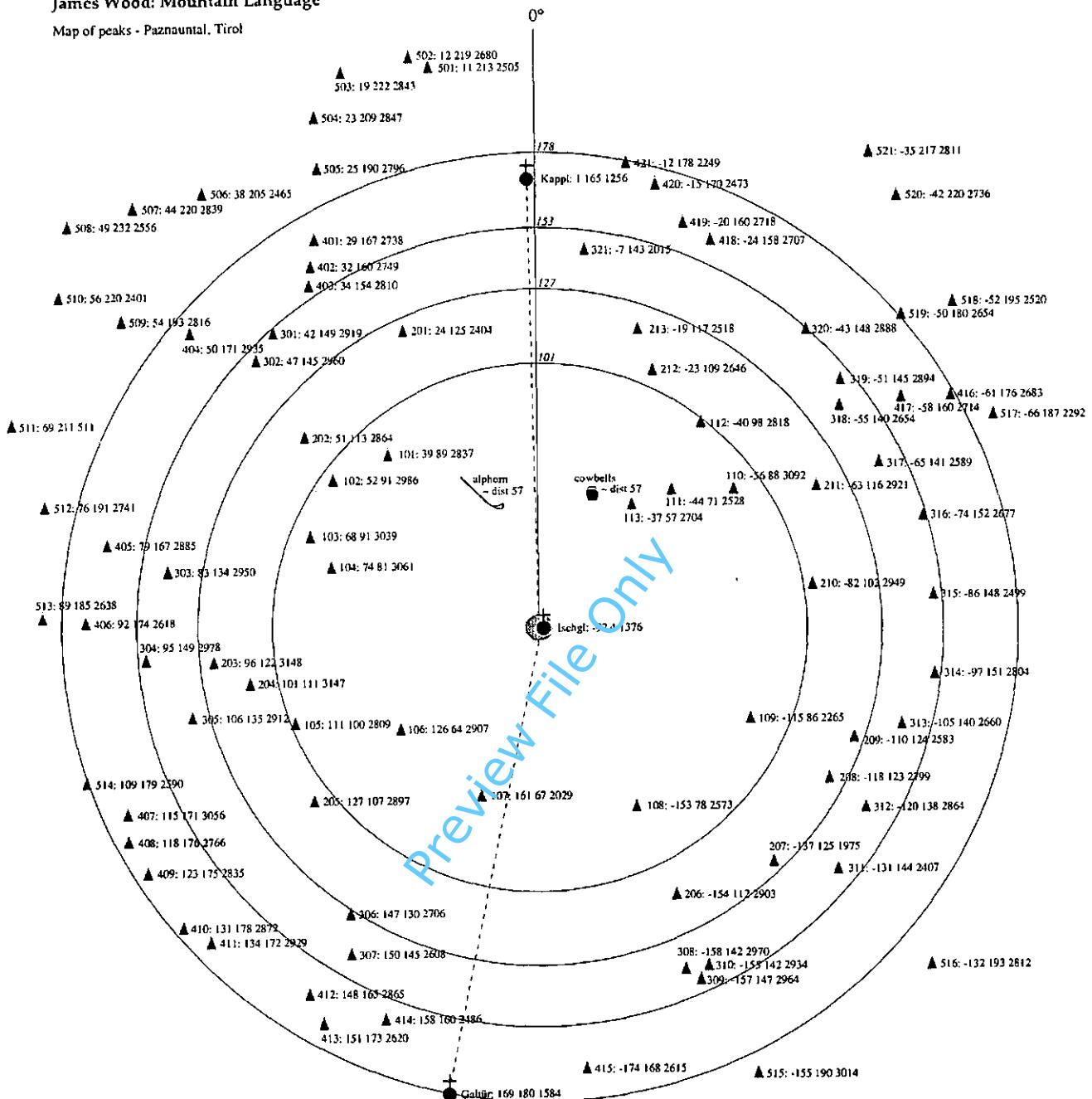
A rainstick (either bamboo or cactus) is required to initiate the central 'rain' section (from bar 105). The length of the rainstick should be such that it is possible to play the duration notated (about 28") with one single movement.

Preset changes

Preset changes are indicated by the numbers in the boxes (as distinct from the section numbers which are much larger numbers in boxes) - these preset changes will be made automatically by the keyboard player, and do not have to be made by the percussionist during performance. They are included in the part in case the percussionist should want to work alone with the samplers.

James Wood: Mountain Language

Map of peaks - Paznauntal, Tirol



Zone 1: 13 peaks (101 - 113) - distance range: 57 - 100

Zone 2: 13 peaks (201 - 213) - distance range: 102 - 125

Zone 3: 21 peaks (301 - 321) - distance range: 130 - 152

Zone 4: 21 peaks (401 - 421) - distance range: 154 - 178

Zone 5: 21 peaks (501 - 521) - distance range: 179 - 232

Numbers represent: peak number - azimuth - distance - altitude

Lowest altitude (Kappel bell) = 1256

therefore 1256 = 0 elevation

thus altitude - 1256 = elevation

The spatialisation in Mountain Language has been modelled on the geographical location of 89 mountain peaks surrounding a central reference point, the village of Ishgl, Paznauntal, Tirol.

DM5 settings

Blank spaces in Gain and Pickup position have been left for user variations

DM5 in	Trigger	Gain	VCrV	Xtalk	Decay	Noise	Pickup position	ideal position
1.01	60/C3	85	5	50	99	45	C C	C
1.02	64/E3	93	5	50	99	45	C C	
1.03	65/F3	78	5	60	99	45	C C	
1.04	66/F#3	99	5	50	99	45	C C	
1.05	67/G3	76	5	50	99	45	C C	
1.06	68/G#3	78	4	50	99	45	C C	
1.07	69/A3	74	4	50	99	45	C C	
1.08	70/A#3	85	4	50	99	45	C C	
1.09	71/B3	76	4	50	99	45	C C	
1.10	72/C4	89	4	50	99	45	C C	
1.11	73/C#4	79	4	50	99	45	C C	
1.12	74/D4	94	4	50	99	45	C C	
2.01	75/D#4	85	4	50	99	45	C C	
2.02	76/E4	85	4	50	99	45	C C	
2.03	77/F4	85	4	50	99	45	C C	
2.04	78/F#4	79	4	50	99	45	C C	
2.05	79/G4	84	4	50	99	45	C C	
2.06	80/G#4	85	4	50	99	45	C C	
2.07	81/A4	85	4	50	99	45	C C	
2.08	82/A#4	59	4	50	99	45	C C	
2.09	83/B4	68	4	50	99	45	C C	
2.10	84/C5	79	4	50	99	45	C C	
2.11	85/C#5	79	4	50	99	45	C C	
2.12	86/D5	65	4	50	99	45	C C	
3.01	87/D#5	85	4	50	99	45	C C	
3.02	88/E5	99	4	50	99	45	C C	
3.03	89/F5	99	4	50	99	45	C C	

Preview File Only

List of keyboard triggers

P-1

Soundfiles

ML-01 clik-01 ML-02 clik-02 ML-03 clik-03 ML-04 clik-04 ML-05 clik-05

L-1 L-2 L-3 L-4

P-2

Bank I

001 002 003 004 005 006 007 008 009

P-3

ML-06 clik-06 ML-07 clik-07 ML-08 clik-08

ML-09 clik-09

010 011 012 L-5 013 014 015 016 017 018 019 020 021 L-6 022 023 024 025 026

P-4

P-5

ML-10 clik-10 ML-11 clik-11

ML-12 clik-12 ML-13 clik-13

Message: Bank II

027 028 L-7 Reload Samplers! 000 001 002 003 004 005 006 007 008 009 010 L-8 011 012 013 014

P-6

P-7

ML-14 clik-14 ML-15 clik-15 ML-16 clik-16

ML-17 clik-17

015 016 017 018 019 020 L-9 021 022 023 024 025 L-10 026 027 028 029 030 031 L-11 032

P-8

P-9

ML-18 clik-18

ML-19 clik-19 ML-20 clik-20

033 034 035 L-12 036 L-13 L-14 L-15

P-10

to John Kenny

Mountain Language

2000 version

James Wood

[1] $\text{J} = 25$
close-mic OPEN
reverb OPEN

Alphorn: [u] pppp [u] pp

Keyboard triggers: L-1 trigger L-1 a few seconds before starting L-2

ML-01 clik-01

Breath: growing out of alphorn breath

Acolian pipes

Wind

[2] $\text{J} = 25$ $\text{J} = 26$ $\text{J} = 27$ $\text{J} = 28$ $\text{J} = 29$ $\text{J} = 30$ $\text{J} = 31$ $\text{J} = 32$ $\text{J} = 33$ $\text{J} = 34$

6 [sord]
alphorn: ppp pppp pp pppp

[P-2]
kbd:

breath: ppp

acolian:

wind:

R-1: pppp ppp pppp

R-2: pppp

E-2:

E-3: pppp

E-4: pppp

E-5: pppp

Preview File Only

alphorn *[sord]* $J = 35$ $J = 36$ sub-pedal [open] $J = 38$ close-mic OPEN reverb OPEN $J = 40$ $J = 42$ $J = 44$ close-mic CLOSED

pp \overbrace{pp} [u] [6] \overbrace{pppp}

kbd (P-1) L-3 $\hat{\wedge}$

breath

aeolian

wind

R-1 pp

R-2 \overbrace{pp}

E-2

E-3 $pppp$ \overbrace{pppp}

E-4 $pppp$

E-5 \overbrace{pppp}

[2]

J = 46 sempre accel. *J = 47* *J = 48* *J = 49* *J = 50* *J = 51*

16

alphorn [P-1] aeolian wind R-1 R-2 R-3 E-2 E-3 E-4 E-5

f *f* *f* *mp* *p* *f* *mf* *mf* *p* *p* *nat.* *mp*

terraced dynamics - (no dim on each note)

r3 *r3* *r3* *r3* *r3* *r3* *r3* *pp* *pp* *pp* *pp*

mf *mf* *p* *p* *mf* *mf* *mf* *ppp* *ppp* *ppp* *ppp*

mp *mp* *mp* *ppp* *ppp* *ppp* *pppp* *pppp* *pppp* *pppp*

8.. *8..* *8..* *8..* *8..* *8..* *8..* *8..* *8..* *8..*

mf *mf* *mf* *mf* *mf* *mf* *mf* *ppp* *ppp* *ppp*

Preview File Only

J = 52 J = 53 J = 54 J = 55 J = 56 J = 57 J = 58 J = 59

poco f *mp* *p*

teraced dynamics - (no dim on each note)

alphorn 2/

kbd [P-2] L-4 ♫

aeolian

wind

R-1 *pp* *ppp* *mf* (*mf*)

R-2 *mf* *mp*

R-3 r.3 *poco f* *pppp* nat.

E-3 *pppp*

E-4 *pppp*

E-5 *pppp*

Preview File Only

3

$\text{J} = 60$ senza accel.

25 c-64.2

c-bells [000] f $p \rightarrow m\text{p}$ leggiero

alphorn close-mic OPEN
reverb CLOSED

close-mic CLOSED

f $\rightarrow m\text{f}$

t-kh krr k p
 $m\text{p}$ (extempore phonemes)

[P-2] 000 ↑

kbd ML-02 clik-02

001 ↑

acolian

wind

R-1

E-3 pppp

E-4 pppp

E-5 loud, but distant
pppp

8..

28

e-64.2 (approx pitches only) (shakuhachi)

c-bells [001] poco f 3 3 p pp f

alp horn [P-2] m f

kbd

R-1 R-2 R-3

E-1 E-2 E-3 pp 8. pp

E-4 pp

E-5 pp

(approx pitches only)

31

e-64.2

c-bells

alp horn

kbd

[P-2] [002] [003]

ML-03 clik-03

R-1

R-2

E-2

E-3

PPP

PPP

E-4

PPP

E-5

p (quasi echo)

f

pp

mf

f

mf

p

j

mp

j

ppp

j

ppp

j

4

c-64.2

c-bells

siphorn

kbd

aeolian

wind

R-1

R-2

R-3

E-2

E-3

E-4

E-5

004

p delicate

(sord)

p (quasi echo)

[P-2]

ML-04
ctik-04

terraced dynamics
(no dim. on each note)

Preview File Only

37

c-64.2 [005] (p) *p mellow*

c-bells [005] [sord] *p mellow*

alphorn [P-2] [005]

kbd

aeolian

wind

R-1 (mf) *ppp*

R-2 (mf) (mf) *ppp*

R-4 *ppp*

E-1 *pppp*

E-2 (pppp) *pppp*

E-3 (8.)

E-4 *ppp*

E-5 *ppp*

E-6 *pppp*

5

40

c-64.2

c-bells

006

p dolce

subf

007

poco f

dolce

gently...

alphorn

(sord)

(open)

pesante

(sord)

[P-2]

006

007

kbd

ML-05

clik-05

aeolian

wind

R-1

R-2

PPP

f

R-3

PPP

R-4

E-1

(pppp)

E-2

(pppp)

PPPP

E-3

PPP

E-4

PPP

PP

E-5

pp

(8).....

ppp

43

c-64.2

c-bells *p dolce, risonante, calmo* [008] *pp*

alphorn *[sord]* *mf* *mp* *p* *mp* *p*

kbd [P-2] [008] *p*

R-1 *p*

R-2 *pp* *(8).....* *pppp*

R-3 *(8).....* *pp*

E-1 *ppp* *pppp*

E-2 *(ppp)*

E-3 *(ppp)* *8.....*

E-4 *ppp* *8.....*

E-5 *ppp* *8.....* *(pppp)*

46

c-64.2

c-bells

alp horn

kbd

R-1

R-2

R-3

E-1

E-2

E-3

E-4

E-5

009

[P-2]

P-3

010

ML-06
clik-06

Preview File Only

[6]

49

c-64.2

c-bells

alphorn

[P-3]

R-1

R-2

R-3

R-4

E-1

E-2

E-3

E-4

E-5

E-6

Preview File Only

52

c-64.2

c-bells

pp sempre

alphorn

[sord]

pp dolce

kbd

[P-3] 012

R-2

pp

R-3

pp

R-4

(mf)

pp

pp

E-1

pppp

E-2

(pppp)

E-3

pppp

E-4

pppp

E-5

(8).

pppp

E-6

pppp

7

55

c-64.2

c-bells

poco f

[013]

mf

014

p

mf

p

pp

alhorn

[open]

mf

[P-3]

L-5

013

014

kbd

ML-07

clik-07

R-1

R-2

R-3

R-4

f

mp

mp

E-1

E-2

(8).....

pppp

E-3

pppp

E-4

pppp

E-5

pppp

E-6

58

e-64.2

c-bells (mp) (mp) 015 P 016 f brillante
PP J P mp ppp mp

alphorn

[P-3] 015 016
kbd

R-1 poco f
R-2 mp
R-3 mp
R-4 3

E-1 ppp
E-2 3 (ppp)
E-3 pp
E-4 3 5
E-5 ppp 3 pppp

Preview File Only

[8]

6/

e-64.2

c-bells

not too fast

mp

p

p

kbd

f

ML-08
clik-08

R-1

f

R-2

f

R-3

f

R-4

poco f

p

E-1

pppp

ppp

E-2

p

E-3

p

E-4

mf

p

E-5

p

E-6

p

p

p

p

p

p

p

Preview File Only

9

e.64.2

c-bells 017 gently... pp mp

kbd [P-3] 017

R-1 f 3 5 f f

R-2 mp 3 f mf 3

R-3 mp 3 3

R-4

E-1 ppp

E-2 ppp ppp

E-3 ppp ppp mp

E-4 ppp ppp p

E-5 ppp

Musical score page 28 featuring five systems of music. The top system (measures 67-71) includes staves for c-64.2 (treble clef), c-bells (bass clef), and kbd (bass clef). The middle system (measures 72-76) includes staves for R-1, R-2, and R-3. The bottom system (measures 77-81) includes staves for E-1, E-2, E-3, E-4, and E-5. A large blue watermark "Preview file Only" is diagonally across the page.

67

c-64.2

c-bells

p delicate

018

f sub.

p

[P-3]

018

R-1

R-2

R-3

f 3

f 3

E-1

E-2

E-3

ppp

E-4

ppp

E-5

ppp

ppp

69

e-64.2

c-bells (p) f p mf

[P-3] [P-4]

R-1 R-2 R-3 R-4 ff f f f

E-1 E-2 E-3 E-4 E-5 E-6 pp pp pp pp

10

J = 63

7/ e-64.2

c-bells [P-4] 019 *mp delicato* 3 4 pp p

R-1 R-2 R-3 R-4 R-5 R-6

E-1 E-2 E-3 E-4 E-5

preview file only

73

e-64.2

c-bells [020] *mp leggiere, dancing...* *p* [021] *poco f* *p* *(A)* *p*

[P-4] [020] [021]

kbd

R-1

R-2

R-3

R-4

R-5

R-6

E-1

E-2

E-3

E-4

E-5

Preview File Only

75

e-64.2

c-bells

alphorn

[P-4]

kbd

R-1

R-2

R-3

R-4

R-5

R-6

E-1

E-2

E-3

E-4

E-5

ML-09
clik-09

p

poco mf

poco f p

mf

f

pp

p

p

p

pp

p

p

pp

pp

mp

mp

mp

pp

z4

z4

pp

mp

mp

mp

z4

pp

11

♩ = 50 subito

c-64.2

c-bells

alphorn

[P-4] kbd

R-1

R-2

R-3

R-4

E-1

E-2

E-3

E-4

E-5

sub *f* molto, brillante...

022

poco *f*

f

L-6

022

mp

f

ppp

ppp

ppp

ppp

ritardando $\text{J} = 49$. . . $\text{J} = 48$. . . $\text{J} = 47$. . .

79

c-64.2

c-bells

mp delicato r3 023 pp delicissimo

alphorn

p (quasi echo) mf p p

[P-4] 023

kbd

R-1

R-2

R-3

R-4

R-5

R-6

E-1

E-2

E-3

E-4

E-5

12

$J = 46$

82

e-64.2

c-bells

alphorn

kbd

R-1

R-2

R-3

R-6

E-1

E-2

E-3

E-4

E-5

E-6

melancholic

hissy

[P+4]

024

PPP

p

p

p

p

pp

ppp

ppp

pppp

pppp

pppp

pppp

pppp

pppp

pppp

ppp

85

e-64.2

c-bells

mellow
(softer rubber mallets)

025

p

026

p *sempre*

alphorn

o a o i é u o u i

[P-4]

025

026

P-5

R-1

R-2

R-3

E-1

pppp

E-2

pppp

E-3

E-4

E-5

E-6

8.

ppp

pppp

(8).....

13

88

c-64.2

c-bells

027

alphorn

[P-5]

ML-10
clik-10

R-1

R-2

R-3

E-1

E-2

E-3

E-4

E-5

E-6

pppp

pppp

pppp

pppp

pppp

8.

Preview File Only

91

c-64.2

c-bells

alphorn

i e o u i o a i e o a i o e a i e

[P-5]

kbd

R-1

R-2

R-3

E-1

E-2

E-4

E-5

E-6

(8).....

pppp

Preview File Only

94

c-64.2

c-bells

alphorn

[P-5]

kbd

R-1

R-2

R-3

E-1

E-2

E-4

E-5

(8).

(loco)

028

028

ML-11
clik-11

Preview file Only

This page of musical notation represents a score for a complex ensemble. It is organized into three main sections separated by vertical bar lines. The top section includes staves for 'c-64.2', 'c-bells', and 'alphorn'. The middle section includes staves for '[P-5]' (Keyboard) and three reed pipe staves labeled 'R-1', 'R-2', and 'R-3'. The bottom section includes staves for six reed pipe staves labeled 'E-1' through 'E-6'. The notation uses standard musical symbols like quarter notes, eighth notes, and sixteenth notes, along with specific markings such as 'f' (fortissimo), 'p' (pianissimo), '—3' (staccato), '↑' (upward arrow), and '(loco)' (locally). Performance instructions like '(8.)' are also present. A blue diagonal watermark 'Preview file Only' is overlaid across the page.

14

J = 40

97 → disappear into breath/wind

e-64.2

c-bells ↑

close-mic OPEN
reverb OPEN

alphorn ph [ə] ph [ə] mp

[P-5] L-7 ↑

Message:
Reload Samplers!

Scb-066 Scb-067

misc

wind

R-1

R-2 pp

R-3 pp

E-4 pppp

E-5 pppp pppp

E-6 pppp

100 c-64.1: load Bank 2
c-64.2: load Bank 2 → rainstick

c-bells

alphorn

[P-5]

kbd

misc

wind

E-4

E-5

103 rainstick

c-bells

alphorn ph [e] ph [i] ph [u] tch! k/kh [ü] kh [u]

[P-5]

kbd

wind

E-6 pppp

From here until bar 115 the reverb level will need to be constantly changed - the more articulated the rhythms the less reverb should be used, but keep raising the reverb level again for the long notes, especially at the ends of each phrase

15

 $\text{J} = 42$ poco a poco piu mosso

106

c-bells

alp horn

ph
[ö]
pp

ss
[ö]
p

sost.

[P-5]

kbd

misc

Scb-068

Scb-069

Scb-070

wind

rain

Rainstick-01: 508

202

sost.

109

$\text{J} = 44$

c-bells

cowbells

alp horn

kh
[ö]
mp

ss
[i] [ü]
p

ph
rr
[i] [u] [é]
poco
molto
[i] [é]
f
sost.

[P-5]

kbd

wind

rain

Rainstick-02: 508

207

516

202

sost.

$\text{J} = 50$

alphorn 112 *marcato (detached)* $\text{J} = 52$ *disappear into breath*

kbд [P-5]

breath

wind

rain 207 - 516
Rainstick-03: 508 - 202 - *sost.*

Preview File Only

$\text{J} = 54$

alphorn 115 *close-mic CLOSED* $\text{J} = 56$

kbд [P-5]

breath *mp*

wind

rain 207 - 516
Rainstick-04: 508 - 202 - *sost.*

Midi-rain-01:

Preview File Only

16 $J = 58$ $J = 59$ $J = 60$

118

c-bells

[P-5]

kbd

II:000

breath

(M-r-01)

508

rain

516

217

Preview File Only

pppp pochissimo a pochissimo cresc.*pppp* pochissimo a pochissimo cresc.*ppop* pochissimo a pochissimo cresc.*pppp* pochissimo a pochissimo cresc.

canti

[II:000]

i21 *delicatissima*

J = 61

J = 62

c-bells 

At first cowbells should blend with the rain sounds, entering almost imperceptibly - once the sound is established in the texture, very gradually emerge out of it, becoming more and more characterful and dance-like.

[P-5]

kbd 

breath 

rain

202

sost.

Midi-rain-02: 508

Midi-rain-03:

516

canti



J = 63

124 c.bells *pochissimo a pochissimo crescendo* *J = 64* *ppp*

[P-5] kbd

breath

207 rain *sost.*

(M-r-03) 508

canli

Preview File Only

17

 $\text{J} = 65$ $\text{J} = 66$

127

c-64.2

c-bells

pppp

ppp *pochissimo cresc.*

[P-S]

kbds

II:001

breath

mp

pp

p

rain

207

202

sost.

516

canti

ppp pochiss. cresc. sempre

ppp pochiss. cresc. sempre

ppp pochiss. cresc. sempre

ppp pochiss. cresc. sempre

J = 67 J = 68

e-64.2 c-bells kbd breath rain canti

130 II:002 II:002 poco p mp sosten.

pp

[P-5]

Preview File Only

130

133

J = 69

c-64.2

pochiss. cresc.

[P-5]

II:003

II:003

breath

(mp)

rain

516

207

canti

J = 70

Preview File Only

This page contains musical notation for a six-part ensemble. The parts are: c-64.2, c-bells, kbd, breath, rain, and canti. The tempo is marked as J=69 at the beginning of the first measure, and changes to J=70 at the start of the second measure. Various performance instructions are included, such as 'pochiss. cresc.' for the c-bells part, dynamic levels [P-5] and II:003, and a rain instruction. The notation uses standard musical symbols like notes, rests, and dynamics. The page is marked with a large blue watermark 'Preview File Only' diagonally across the center.

136

J = 71

J = 72

J = 73

e-64.2

c-bells

[P-5] [II:004] P-6

breath

rain

cantri

18

J = 74

J = 75

J = 76 (senza accel.)

I:39

c-64.2

c-bells

[P-6]

II:005

sub. p

mp

poco mf

II:006

p

II:005

II:006

breath

p

poco mf

rain

516

canti

p cresc. sempre

p cresc. sempre

p cresc. sempre

p cresc. sempre

142

e-64.2

c-bells

mp p mf sub. p

[I:P-6] [II:007]

breath

rain

canti

Preview File Only

145

e-64.2

c-bells

[P-6]

breath

canti

II:008

II:008

mp

sub. p

mp

mp cresc. sempre

mp sosten.

Preview File Only

This page contains musical notation for a complex ensemble. The instruments listed are e-64.2, c-bells, [P-6], breath, and canti. The notation includes measures 145 and 146. Various dynamics such as *mp*, *sub. p*, and *mp cresc. sempre* are specified. Measure 146 begins with a dynamic of *mp*. Measure 147 starts with *sub. p* and ends with *mp*. Measures 148 and 149 begin with *mp cresc. sempre*. Measure 150 starts with *mp* and ends with *mp sosten.*. Measure 151 concludes with *mp cresc. sempre*.

148

c-64.2

e-bells

[P-6]

breath

canti

II:009

poco mf cresc. sempre

poco mf cresc. sempre

poco mf cresc. sempre

poco mf cresc. sempre

Preview file Only

This page contains musical notation for several instruments. The top section features staves for 'c-64.2' and 'e-bells'. The middle section features staves for 'kbd' and 'breath'. The bottom section features four staves for 'canti'. Measure 148 starts with a dynamic of 'mf' for the e-bells. Measure II:009 begins with a dynamic of 'p'. The notation includes various dynamics such as 'p', 'mp', 'mf', and 'cresc.'. The word 'Preview file Only' is printed diagonally across the page.

159

c-64.2

c-bells

[P-6]

breath

canti

II:010

II:010

mf cresc. sempre

mf cresc. sempre

mf cresc. sempre

mf cresc. sempre

Preview File Only

This is a complex musical score page, likely for a contemporary composition. It features multiple staves for different instruments and voices. The top section includes staves for c-bells, kbd (keyboards), and breath. The middle section includes three staves for 'canti' (vocal parts). Measure numbers 159 and c-64.2 are visible at the top left. Time markers II:010 appear twice. Dynamic markings like 'mf cresc. sempre' are placed above certain staves. A large blue diagonal watermark reading 'Preview File Only' is overlaid across the page.

19

152

e-64.2

c-bells

f molto

close-mic OPEN
reverb CLOSED

alphorn

ph
[r]
f sub.

tchk tchi ph ph ph
[e] [i] [ü] [u] [ö]

close-mic
CLOSED!!

[P-6]

kbd

L-8

breath

p

aeolian

bass shak

ff

wind

PW01

poco f

canti

-lfo

ff

ff

ff

R-3

R-4

R-5

R-6

ff

ff

ff

ff

154

c-64.2

c-bells

close-mic OPEN H reverb

alphorn

ph ph ph i' kph ph ph
[i] [ü] [u] — [i] [ü] — [u] [é]

ff sub.

reverb CLOSED H

tchi krr (u) ff

dissolve into 'blizzard' (aeol) and breath

[P-6]
II: 011

kbd

breath

mp

aeolian

wind

sirens: poco f — 3 8

sirens

R-1 mf

R-2 ff 8

R-3 ff

R-4 ff 8

R-5 ff 8

R-6 ff 8

(8).....

Preview File Only

20

157

e-64.2

c-bells II: 011 *brillante* *f melto*

alphorn tchi [i] ph [u] sh [i] *close-mic CLOSED*

ph [i] *improvised phonemes* *ff*

[P-6]

kbd

misc shak-bird-01

breath *mf*

aeolian wind filters

wind *ff* *p* *mp* *mp*

(8)

(8)

sirens (8)

(8)

R-1

R-2

R-6

159

c-64.2

c-bells

II: 012

alp horn

close-mic OPEN
reverb CLOSED

f p mf f sh [i] ph [u] rr [ö] extempore tchi ka
[ö] phonemes f ff

[P-6]

II: 012

kbd

ML-12 clik-12

misc

shak-bird-02

breath

mp

aeolian

bass shak ff

wind

PW02 poco f f

(8)

sirens

(8) (8) (8)

R-1 p

R-2 p

R-5 ff

R-6 f 8.

E-5 p

E-6 p

21

162

e-64.2

c-bells

alphorn

[P-6]

kbd

misc

breath

aeolian

wind

(8)

sirens

R-1

Morphe-01

dissolve into Morphe-01

(passes to shak-bird -)

R-2

mf

R-6

E-5

E-6

ph [ə] ph extempore phonemes rr [u] tchik [i] ku ff f sfz

close-mic CLOSED

shak-bird-03 (passes to cowbells)

164.2

c-bells

alphorn

[send] *p* (quasi echo) [open]

close-mic OPEN - reverb very slightly open

f *p* *h* *[i]* *[u]* *mp*

[P-6]

kbd

ML-13 clik-13

breath

mp

acolian

ff

wind

PIV03 *poco f* *ff*

(8).....

(8).....

(8).....

(8).....

sirens

R-1

R-2

R-3

R-4

R-5

R-6

E-4

E-5

E-6

167

e-64.2

c-bells *p delicato* *f sub.*

II:013 *pp* *p*

reverb CLOSED

alphorn *extempore phonemes* *[i]* *[u]* *[a]*

h *s* *s* *s*

<= f *mp*

[P-6] II:013

kbd

misc shak-bird-04

breath *mf*

acolian

wind *ff* *< mf* *f*

sirens

R-1

R-2

R-3

R-4

E-4 Morphe-02 *shak-bird-04* *mf*

E-5 *p*

E-6

22

170

e-64.2

c-bells

alphorn

[P-6]

neolian

wind

sirens

R-1

R-2

R-5

R-6

E-1

E-2

E-5

E-6

II:014

close-mic
CLOSED

sh ph (sust.)
[i] [u]
f sub.

II:014

PW04

poco f

(8)

poco mf

f 8.....

poco mf

(foco)

mf

8.....

f

P

P

(foco)

mp

8.....

23

176

c-64.2

c-bells II:015 *mp*

alphorn

[P-7] II:015

kbd

misc

aeolian

wind PW05 poco f

sirens (8)

R-S

R-6

E-5

E-6

179

c-64.2

c-bells II: 016 f mp II: 017 p pp mp

alphorn close-mic OPEN close-mic CLOSED close-mic OPEN
molto ff [i] sub.p extempore phonemes ph ph [i] extempore phonemes p ph [i] sub.f

[P-7] II: 016 II: 017

kbd

misc shak-bird-07

aeolian

wind ff ff ff

sirens

R-1 R-2 R-3 R-5 R-6 Morphe-04

R-1 R-2 R-3 R-5 R-6 Morphe-04

E-5 E-6

182

e-64.2

c-bells

II:018

pp

mp

close-mic
CLOSED

ph
[a] ph
[u] tchika..
ppp [i] extempore..
 poco mf

[P-7]

II:018

shak-bird-08

aeolian

wind

mf

sirens

8'

8'

R-1

shak-bird-08

mf

R-2

E-5

E-6

(8)....

24

185

c-64.2

c-bells

alphorn

kbd

misc

breath

aeolian

wind

sirens

R-I

R-5

R-6

E-I

E-5

Preview file Only

25

188

e-64.2

c-bells

poco f II:020

alphorn

|F-7| II:020

misc

breath

aeolian

wind PW07 ff

(8)

sirens

R-1

R-2 ff r3

R-3 r3 f poco f

R-6

E-2 ff r3

E-3 p r3

E-6 mp r3 poco mf

19 |

c-64.2

c-bells

alhorn

[P-7]

kbd

misc

breath

aeolian

wind

sirens

R-1

R-2

R-3

R-4

close-mic OPEN

close-mic CLOSED

shak-bird-12

Morphe-05 → shak-bird-12

poco f

poco f

poco f

poco f

f molto

[26]

192

e-64.2

c-bells

[I:7]
L-9
II:021

kbd

ML-16
dkk-16

misc

aeolian

wind

mf sosten.

canti

(8)

sirens

R-1

R-2

R-3

R-4

ff

27 $\text{♩} = 72$

195

e-64.2

c-bells

(P-7)

II:022

poco f leggiero

RH changes mallets whilst LH plays

Mallets from here:
Tails up: all with the left hand - still the medium rubber (M3) mallets for now
Tails down: right hand - short trem (4 or 5 notes) inside the bell -
with special wooden dowel (c 2cm thick, 22cm long) - always light and delicate

mp

RH

LH

LH

LH

LH

conti

R-1

R-2

R-3

R-4

197

c-64.2

c-bells

[P-7]

II:023

II:023

canti

R-1

R-2

R-3

R-4

A page of musical notation for a multi-instrument ensemble. The page is divided into two systems by a vertical bar line. The top system includes staves for c-64.2 (two staves), c-bells (one staff), [P-7] (one staff), and canti (one staff). The bottom system includes staves for R-1, R-2, R-3, and R-4. Various musical markings such as dynamic arrows, slurs, and rests are present. A large blue watermark 'Preview File Only' is diagonally across the page.

28

199
c-64.2

c-bells

mf leggiero

mp

[P-7] [P-8]

kbd

Canti: poco marcato...
sempre *mf*

conti

7:4

7:4

Responses: *meno ff*

R-1

R-2

R-3

R-4

7:3

201

c-64.2

c-bells (non trem -
on the lip)

[P-8] II:024

7:4

7:4

7:4

7:4

R-1

R-2

R-3

R-4

$J = 69$

203

e-64.2

c-bells

sub. *p* *p* *mp* *f* (sost) *poco mf* *p*

[P-8]

kbd

M1-17

II:025

Canti: poco legato...

7.4

7.4

7.4

7.4

cont.

R-1

R-2

R-3

R-4

205

c-64.2

c-bells

mf sempre
mp

[P-8]

kbd

L-10

canti

7:4

7:4

7:4

sirens

R-1

R-2

R-3

R-4

E-1

pppp

E-2

pppp

Preview File Only

29

$\text{♩} = 66$

207

e-64.2

c-bells

II:026 *poco* *leggiero* *mp*

[P-8] II:026

Canti: *poco mf*

7:4

7:4

7:4

7:4

sirens *p* *sost.*

Responses: *f*

R-1

R-2

R-3

R-4

B-1 *pppp*

B-2 *pppp*

Preview File Only

30

 $J = 63$

209

c-64.2

c-bells

[P-8]

II:027

poco f

poco mf

II:027

Cantil: mf

sirens

R-1

R-2

R-3

R-4

E-1

E-2

Preview File Only

21

c-64.2

c-bells

(P-8)

kbd

canti

sirens

R-1

R-2

R-3

R-4

E-1

E-2

Preview File Only

213

c-64.2

c-bells

[P-8]

kbd

canti

sirens

R-1

R-2

R-3

R-4

E-1

E-2

pppp

pppp

213

c-64.2

c-bells

[P-8]

kbd

canti

sirens

R-1

R-2

R-3

R-4

E-1

E-2

pppp

pppp

31

(J = 63 sempre)

215

e-64.2

c-bells

II:028

cheerful... RH

[P-8] II:028

Canti: mp

p sosten.

sirens

Responses: poco f

R-1

R-2

R-3

R-4

E-1

E-2

217

e-64.2

c-bells

piu delicato... *mp* *p* *pp*

(poco tenuto)

with the shaft of the wooden dowel (RH)
on the 'lip' of the bells

LH: put down outside rubber mallet and replace it with one light wound mallet (eg M16)

LH (still tails up) - use the wound (M16) outside mallet for the notes marked:
other LH notes - use the inside rubber mallet (M3)
RH (still tails down) - continue to use the wooden dowel

[P-8]

kbd

canti

sirens

R-1

R-2

R-3

R-4

E-1

E-2

E-3

pppp

pppp

pppp

219

c-64.2

c-bells

II:029

mp

p

|P-8|

II:029

kbd

cantilena

sirens

p posl.

R-1

R-2

R-3

R-4

E-1

E-2

E-3

ffff

pppp

pppp

pppp

32

$\downarrow = 60$

22

e-64.2

c-bells

RH on the lip

[P-8]

II:030

II:030

Canti: poco *mp*

sirens

p sost.

R-1

R-2

R-3

R-4

Responses: *mf* poco a poco più legato

delicato

E-1

E-2

E-3

pppp

pppp

pppp

This page contains musical notation for various instruments and voices. At the top, there are staves for 'e-64.2' and 'c-bells'. The 'c-bells' staff includes dynamic markings 'mf', 'mp', 'p', 'pp', and 'pp' with corresponding performance instructions 'RH on the lip'. There are two time signatures: one with a dotted line over the first note and another with a solid line over the first note. Measure numbers 22 and 32 are shown. Measure 32 starts with a dynamic 'p' and ends with 'pp'. The vocal part 'Canti' has a dynamic 'p' and a tempo marking 'Canti: poco mp'. The 'sirens' part has a dynamic 'p' and a sustain instruction 'p sost.'. The 'R' section (R-1, R-2, R-3, R-4) has a dynamic 'mf' followed by 'poco a poco più legato'. The 'E' section (E-1, E-2, E-3) has three staves, each ending with 'pppp'. A large blue diagonal watermark 'Preview File Only' is present across the page.

J = 58

22.1

e-64.2

c-bells

[P-8]

kbd

canti

sirens

R-1

R-2

R-3

R-4

E-1

E-2

E-3

J = 56

p

pp

ppp

p

pp

s

p.sost.

pppp

pppp

pppp