

Richard Barrett

tkiva

2016-17

4 players and electronic sounds

full score
version 1.0

tkiva

(2016-17) for 4 players and electronic sounds

Commissioned through The Museum of Jurassic Technology with the generous support of Elizabeth and Justus Schlichting

for gnarwhallaby: Brian Walsh, Matthew Barbier, Derek Stein, Richard Valitutto

duration: approximately 20 minutes

Instrumentation: bass clarinet/clarinet in A
 trombone/alto trombone
 cello
 piano

The instruments should ideally be amplified in order to balance with each other and with the fixed media electronic sounds.

Tkiva consists of four numbered sections which are played continuously when this composition is performed alone. It is however intended to act as a framework for a continuous programme also containing *basalt* for solo trombone, *Flechtwerk* for clarinet in A and piano, and *nacht und träume* for cello, piano and electronic sounds. In the latter form, these three compositions are inserted without a break, and in the aforementioned order, between the four sections of *tkiva*. Additionally, the players not taking part in these three compositions are asked at certain points to add improvisatory material to them, according to suggestions given below.

The Max patch used for playback of the electronic sounds in *nacht und träume* is here replaced by a new one which also triggers the soundfiles used for section 4 of *tkiva* (the only one in which electronic sounds occur). While the cues for *nacht und träume* may be triggered by the sound projectionist, or the clarinetist or trombonist, the three cues for section 4 of *tkiva* should be triggered by the pianist using a MIDI footpedal or similar device.

When a glissando is played with a trill and the glissando of the auxiliary note is not shown for clarity, the auxiliary pitch should move in parallel with the main note.

A *legato* slur before a notehead indicates that the sound is to be played with no discernible attack.


] = audible (tongue- or bow-) stop at the end of a sound

clarinets: R1-4 and L1-4 indicate the first to fourth fingers of right and left hands respectively. Where a multiphonic is not given a fingering, this should be the fingering of the lower pitch (in a "spectral multiphonic").  = slap tongue

Thanks to Heather Roche for advice on several points and for all the invaluable information at <https://heatherroche.net/>

trombones: *Legato* phrase-marks in the trombone part indicate that there should be no audible articulation between pitches (ie. Just as for woodwinds). Slide positions are numbered I-VII (and FI-VI when the F valve is used), followed by ½ for quartertone positions. Seventh, eleventh and thirteenth partials are notated as quartertone inflections. Some additional notations are used on pages 9, 10 and 34 which are explained where they occur.

cello: *psp*, *msp* = poco and molto sul ponticello respectively, the former already being noticeably different in timbre from *nat.*, the latter being as extreme as possible consistent with the fundamental pitch remaining audible. *pst*, *mst* = poco and molto sul tasto (similarly), *clb*, *clt* = *col legno battuto* and *col legno tratto*



 = ascending degrees of bow pressure: flautando; "normal"; exaggerated and distorted (pitch only just discernible); completely pitchless scraping.

-----> = a smooth gradual transition between two states (for example bow position and/or pressure)

A dotted glissando indicates *gettato*. Some additional notations are used on pages 9 and 10 which are explained here they occur.

In part 2 the cello part is written in eighth tones, which are notated using arrows attached to chromatic accidentals.

● = normal left-hand fingerpressure, ◆ = "harmonic" fingerpressure, + = left-hand pizzicato, 12343432123... = rapid exchange of fingers on a single pitch or glissando

piano:  = mute the string with a finger so that the pitch is still clearly heard;  = mute with more pressure so that the pitch is almost absent.

improvisational suggestions (all performers will need all three scores aside from the present one!)

during *basalt*: bass clarinet/cello/piano

bars 29-54 brief sounds, each with different dynamic and timbre, mostly but not entirely within the pitch-range of the trombone (not necessarily pitched!), irregular and sparse (each instrument plays about 1/3 the number of sounds that the trombone plays)

during *Flechtwerk*: trombone/cello

bars 140-154 "shadowing" the gradually descending line of the clarinet with mostly slow and quiet (*pp*) activity on and around this line:

140 15/8, 2/8, 27/16, 12/8, 14/8, 13/8

145 13/8, 19/16, 27/16, 7/8, 13/32, 15/16

150 15/16, 29/32, 6/8, 4/8

bar 178 (clarinet solo) mostly *legato* activity in same range (see below), slightly lower dynamic and around same speed as the non-overblown clarinet sounds, but in separate phrases of intermittent length, occasionally momentarily interrupted by a much *lower*-pitched sound

(note: this is a range, not a glissando!)

bars 205, 214, 218, 222, 230, 232, 234, 236, 238, 241 (bars with *pppp* piano chords and clarinet multiphonics)
extremely quiet (*pppp*) unpitched sounds: trombone air sounds, cello bowing or tapping different parts of the instrument, etc.

during *nacht und träume*: clarinet in A/alto trombone

between parts II and III during VIII continue from the irregular pulsations in part II, each sequence of sounds (*p-mf*)>*ppp*, finding pitch-areas within the electronic part intermittent short and highly varied bursts of activity, dynamics *ppp-ff*, reading through score and "thinking through" the notated parts (clarinet on cello part, trombone on piano part) but playing only the improvisational gaps between them

between VIII and IX during X when cello and piano stop, continue as during VIII but suddenly *sempre ppp* and remaining throughout only just audible through the electronic texture "doubling" the (improvisational) cello part, following the suggestions given in bar 2

between XII and XIII brief sounds, each with different dynamic (*ppp-p*) and timbre, no more than 1/4 tone higher or lower than the sustained electronic pitch:

between XIII and XIV during XIV after cello has completed XIII, continue around this same B natural, but now *sempre ppp-pp* and increasingly sustained glissandi/multiphonics in same dynamic range as (improvised) inside-piano sounds (*ppp-f*), but more intermittent

tkiva

1 ... to Cecil Taylor

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$\text{♩} = 81$ Dynamics for all instruments throughout this section: these generally involve a wave-like evolution, sometimes over an extended duration, within which (a) local crescendi to and from silence take place and (b) accented sounds should always be perceptibly louder than their surroundings.

3/8 5/8 6/5 8/7 4/3 6/8

bcl *fff* *mf* *fff*

trb *fff* *mf* *fff*

vc *fff* *mf* *fff* sub. *fff* sub. *fff* sub. *fff* sub.

pf *fff* *mf* *fff* sub. *fff* sub. *fff* sub. *fff* sub.

nat, mst, arco nat, pizz msp II, nat

Led.

6/8 7/8 4/3 4/3 4 4/3 11/8 5/8

bcl *mf* *fff*

trb *mf* *f* *fff*

vc *mf* *ff* *fff*

pf *mf* *f* *ff* *fff*

rapid and random activity on R1, 2, 3

VII, FIV 1/2, FIII

Led.

5

bcl $\frac{5}{8}$ $\frac{9:10}{8}$ $\frac{4}{8}$ $\frac{6}{8}$ (E key) tr (R3)

trb $\frac{8:7}{8}$ $\frac{3:2}{8}$ $\frac{5:4}{8}$

vc I pizz nat $\frac{5:6}{8}$ arco nat $\frac{4:3}{8}$ nat psp III msp $\frac{9:8}{8}$ IV III II

pf $\frac{7:6}{8}$ $\frac{3:2}{8}$ $\frac{5:6}{8}$ $\frac{7:8}{8}$

mf

7

bcl $\frac{6}{8}$ $\frac{9:7}{8}$ $\frac{5:4}{8}$ $\frac{6:5}{8}$ $\frac{3}{8}$ $\frac{7:6}{8}$ $\frac{5}{8}$ (L123) tr (R123)

trb $\frac{7:8}{8}$ $\frac{3:2}{8}$ $\frac{4:3}{8}$ $\frac{4:3}{8}$ FIII 12/15

vc $\frac{10:9}{8}$ $\frac{7:6}{8}$ psp (gett.) $\frac{6:5}{8}$

pf $\frac{4:3}{8}$ $\frac{8:7}{8}$ $\frac{6:5}{8}$ $\frac{5:6}{8}$ Led.

fff *mf*

9

bcl $\frac{5}{8}$ (L23) (E key) $\frac{3:2$ $\frac{7:8$ $\frac{4}{8}$ $\frac{6:5$ $\frac{4:3$ $\frac{3}{8}$

trb $\frac{7:8$

vc nat $\frac{4:5$ mst $\frac{4:5$ $\frac{9:8$ nat

pf $\frac{11:10$ $\frac{3$ $\frac{3}{8}$ $\frac{3}{8}$

fff *mf* *fff* *mf* *fff* *mf*

11

bcl $\frac{3}{8}$ $\frac{5}{8}$ $\frac{9:8$ $\frac{3}{8}$

trb $\frac{7:8$ $\frac{9:8$ $\frac{4:3$ $\frac{8:7$

vc nat $\frac{3:2$ $\frac{3:2$ psp continuously adjust finger pressure to remain on the threshold of losing the fundamental pitch $\frac{5:6$ $\frac{3:2$

pf $\frac{7:6$ $\frac{3:2$ $\frac{9:10$

ped.

13

bcl $\frac{3}{8}$ $\frac{7:6}$ $\frac{6}{8}$ $\frac{3:2}$ $\frac{6:5}$ $\frac{3:2}$ $\frac{4}{8}$

trb $\frac{5:6$ $\frac{7:6$

vc $\frac{8:6$ $\frac{5:4$ $\frac{7:8$

pf $\frac{4:5$ $\frac{4:3$ $\frac{4:3$

fff *mf sub.* *fff* *mf sub.* *fff* *mf sub.* *fff* *mf sub.*

arco nat, arco psp, arco pst, nat, pizz msp

15

bcl $\frac{4}{8}$ $\frac{4:3$ $\frac{6}{8}$ $\frac{3:2$ $\frac{6:5$ $\frac{4:3$ $\frac{3}{8}$

trb $\frac{4:3$ $\frac{4:5$ $\frac{5:4$ $\frac{7:8$

vc $\frac{8:7$ $\frac{11:12$ $\frac{7:8$

pf $\frac{3:2$ $\frac{3:2$ $\frac{17:12$

fff *fff* *fff* *fff*

arco pst, mst, pizz nat, arco psp, (psp) III, nat, pst, pizz mst, arco nat

Musical score for measures 17-18, featuring four staves: bcl (bass clarinet), trb (trombone), vc (viola), and pf (piano). The score includes complex rhythmic patterns with various time signatures such as 3/8, 7/6, 6/8, 11/8, 4/3, 5/6, 7:6, 4:5, 9:7, 6:4, 5:4, 4:3, 3:2, and 10:9. Performance instructions include *fff*, *p*, *nat*, *msp*, *mst*, *pizz nat sul I*, and *Red.* A double bar line is present at the end of measure 18.

Musical score for measures 19-20, continuing from the previous system. It features the same four staves: bcl, trb, vc, and pf. Rhythmic patterns include 5/8, 5:4, 3:2, 4/8, 7:8, 3/8, 3:2, 4:3, 3:2, 4:5, 11:8, 7:6, 6:7, 4:3, 6:5, 9:10, and 5:6. Performance instructions include *fff*, *p*, *msp*, *pizz msp*, *arco nat*, *tr*, and *msp sul I*.

22

4 8 5 8

bcl

trb

vc

pf

5:4 +L3 (♯) 5:4

(L23, R123) 4:5

4:5

VI 1 6 2 VII 1 2 5

3:2 3:2 nat psp

nat (nat) 11:10 msp

432123432... IV III II

4:3 6:5 4:3 3:2

p *fff* *p*

p *fff* *p*

24

9:10 4 9:8 6 8

bcl

trb

vc

pf

13:10

III $\frac{1}{2}$ 8 VII $\frac{1}{2}$ 2

arco nat 4:5 clb arco nat msp nat

psp 3:2

11:10 7:8

p *fff* *f*

fff *p*

26

bcl $\frac{6}{8}$ $\frac{10:9}$ $\frac{3:2$ $\frac{7:5$ $\frac{3:2$ $\frac{5:4$ $\frac{4}{8}$

fff

trb $\frac{5:4$ $\frac{7:8$ $\frac{11:9$ $\frac{4:3$ $\frac{11:9$ $\frac{4:3$

p $\frac{VII}{1-12}$ *f*

vc *mst sul I* $\frac{5:4$ $\frac{3:2$ *pizz.secco* $\frac{5:6$ *arco nat* *p*

pf $\frac{9:10$ $\frac{4:5$ $\frac{4:5$ $\frac{3:2$

Red. *p* *Red.*

tr (LH Eb) (R23)

28

bcl $\frac{4}{8}$ $\frac{5:4$ $\frac{3:2$ $\frac{5}{8}$ $\frac{3:2$ $\frac{6:5$ *fff*

p

trb $\frac{7:6$ $\frac{4:3$ $\frac{6:5$ $\frac{6:5$ $\frac{8:9$ $\frac{6:5$ *fff*

$\frac{I}{3}$ $\frac{VI}{12}$ $\frac{II}{1\frac{1}{2}}$ $\frac{III}{1\frac{1}{2}}$ *p* *FIII*

vc *arco nat* $\frac{7:8$ *psp* $\frac{4:3$ *nat* $\frac{5:6$ *mst* $\frac{4:3$

pf $\frac{3:2$ $\frac{5:4$ $\frac{3:2$ $\frac{3:2$ $\frac{3:2$ $\frac{9:7$ *fff*

Red. *Red.* *p*

30

bcl

trb

vc

pf

fff *p* *fff* *p* *fff*

arco
nat
pizz
msp

3:2 4:3 3:2 4:3 4 5:4 4:3 3:2 4:3 3

4:3 8:7 7:6

8:7 5:6

4:3 4:5 4:3 6:5

3

32

bcl

trb

vc

pf

fff *p* *mp* *mf* *p*

nat

3 4 3:2 (R2) 3:2 5

4:3 4:3 8 5:4 5:4

3:2 9:8

5:6 3:2

(quasi senza Ped.)

34

5/8, 3:2, 6/8, 8:9, 3/8

trb: 7:5, 7:5, 6:7, 7:5, VI, 7, 8, IV, VI

vc: (nat), 7:8, 4:3, msp, nat, 7:6, 3:2, 4 3 2 1 2 3 4 3 2

fff, p sub.

pf: 3:2, 9:8, 3:2, 11:9, 3:2

36

3/8, 6/8, 8:7, 3:2, 6:5, 12:11, 3:2, 5:6, 5:4, 7:5, 3:2

trb: IV 7, V 10 \ 4, 3:2, 3:2, 3:2, 6:5, 12:11, (tongue-stop)

vc: (nat), 7:6, psp, (gett.), 3:2, clb nat, arco nat, (bow side of bridge), 6:7

fff, pp sub., pp, Ped.

pf: 5:6, 5:4, 7:5, 3:2

38

bcl

trb

vc

pf

7:6 (R2) 5 4:5 tr (L23, R123) 3 7:6 6:5 4

arco nat mst arco nat (bow on tailpiece) clb psp arco nat psp 3:2 msp -- nat (bow vertically on damped string)

3:2 3:2 11:10 3:2 (increase pressure on string)

ppp ppp ppp ppp

41

bcl

trb

vc

pf

4 7:8 6 4:3 7:8 3

arco pst pizz msp arco nat 4:3 psp msp (long bows!) 6:4 10:9 3:2 pst

pp ppp pp ppp pp ppp

Ped. Ped. Ped. Ped. Ped.

48

bcl *pp* *ppp* *pp* *ppp* *pp*

trb *pp* *ppp* *pp* *ppp* *pp*

vc *pp* *ppp* *pp* *ppp* *pp*

pf *pp* *ppp* *pp* *ppp* *pp*

5:4 3:2 3 5:6 4 8

arco nat mst nat 7:8 + arco nat 7:6 3:2

6:5 4:3 4:3 4:3

50

bcl *fff* Sub. *fff* *ff* *ff*

trb *fff* Sub! *ppp* *fff* *f* *mf* *p* *ppp*

vc *fff* Sub! *ppp* *fff* *ppp*

pf *fff* Sub! *ff* *mp* sempre *mp* sempre *Ped.*

4 5 9:10 6 8 8 8

9:8 7:8 5:6 3:2 11:10 3:2 4:3 6:5 5:6 5:4 4:3 7:6 5:6

FV FI 5 7 +

nat msp nat msp pizz nat sul I arco psp nat msp

52

6/8 7:6 3:2 4/8 4:3 3/8

bcl *ff* *ff* *f* *f* VII $\frac{1}{2}$ 11 8 VII $\frac{1}{2}$ 11 4:3

trb *pp* *p* *p* *mp* *mf* *f* 11:9 4:3 4:5 9:8

vc *fff* psp nat 5:6 psp nat 1234321... psp nat

pf 4:5 4:5 4:3 3:2 4:3 5:4 7:6 5:4 3:2 4:5 7:6 6:5 5:4 8:7 5:4 5:4

54

3/8 5/8 4:3 4:3 4:3 8:7

bcl *mf* *mp* *mp* *mp dim...*

trb *ff* *ff* *fff* *ff* *ff* 3:2 3 3 5 7:8 VII 6 7 VII 11 3:2

vc psp psp pizz pst 5:6 arco nat mst nat pizz msp *ppp* *p* *mf*

pf *p* 3:2 4:3 4:3 7 4:3 *ppp* *mp* Led.

56

Score for measures 56-57. The score is for four staves: bcl (Bass Clarinet), trb (Trumpet), vc (Violoncello), and pf (Piano). Measure 56 features a complex rhythmic structure with a 9:8 ratio and a 6/8 time signature. The bcl part starts with a trill and a dynamic of *pp*. The trb part has a 5:4 ratio and a dynamic of *ppp*. The vc part includes *arco nat*, *mst*, *nat*, *psp nat*, *4:5*, *4:3*, *msp*, and *sul I* markings, with dynamics of *fff*, *ppp*, and *fff*. The pf part has a 5:6 ratio and dynamics of *fff*, *ppp mp f*, and *fff dim...*. Measure 57 continues with a 3:2 ratio and a 7:8 time signature, with dynamics of *fff* and *ff*.

58

Score for measures 58-60. The score is for four staves: bcl (Bass Clarinet), trb (Trumpet), vc (Violoncello), and pf (Piano). Measure 58 features a 3/8 time signature and a 4:3 ratio. The bcl part has a dynamic of *pp*. The trb part has a 3:2 ratio and a dynamic of *fff*. The vc part includes *pizz msp*, *arco msp*, *7:6*, *nat*, *6:5*, *msp*, *5:6*, and *msp* markings, with dynamics of *ppp* and *fff*. The pf part has a 5:6 ratio and a dynamic of *f*. Measure 59 features a 4/8 time signature and a 5:4 ratio, with a dynamic of *ppp*. Measure 60 features a 3/8 time signature and a 6/8 time signature, with dynamics of *fff*, *ppp*, and *fff*. The pf part has a 3:2 ratio and a dynamic of *mf*.

61

bcl $\frac{6}{8}$ $\frac{6:7}$ $\frac{7:5}$ $\frac{3:2}$ $\frac{9:10}$ $\frac{11:10}$ $\frac{3:2}$ $\frac{3}{8}$

trb $\frac{4:3}$ $\frac{10:9}$ $\frac{9:7}$ $\frac{4:3}$ $\frac{5:6}$ $\frac{3:2}$ $\frac{3}{8}$

vc (msp) nat msp nat psp $\frac{4:3}$ $\frac{5:6}$ $\frac{3:2}$ $\frac{3}{8}$

pf $\frac{11:12}$ $\frac{5:4}$ $\frac{3:2}$ $\frac{7:9}$ $\frac{3}{8}$

(dim) ... *mp* ... *fff* ... *ppp* ... *pp* ... *p* ... *fff* ... *pp* ... *ped.* ... *p* ...

63

bcl $\frac{3}{8}$ (both E \flat keys) $\frac{5:6}$ $\frac{6}{8}$ $\frac{5:4}$ $\frac{9:7}$ $\frac{5:6}$ $\frac{5:4}$ $\frac{3:2}$ $\frac{4}{8}$

trb $\frac{3:2}$ $\frac{6:5}$ $\frac{3}{8}$

vc arco nat $\frac{3}{8}$ $\frac{3:2}$ $\frac{6:5}$ $\frac{8:9}$ $\frac{3}{8}$

pf $\frac{7:6}$ $\frac{3:2}$ $\frac{5:4}$ $\frac{3}{8}$

(dim) ... *ppp* ... *fff* ... *ppp* ... *fff* ... *ppp* sub. ... *mp* ... *mf* ... *f* ...

FIV $\frac{1}{2}$ 3
3:2

FVI FIV $\frac{1}{2}$ I $\frac{1}{2}$
12 3 7 6

65

bcl $\frac{4}{8}$ $\frac{4:3}{8}$ $\frac{4:3}{8}$ $\frac{3}{8}$ $\frac{3:2}{8}$ $\frac{3:2}{8}$ $\frac{5}{8}$

trb $\frac{4:3}{8}$ $\frac{4:3}{8}$

vc nat $\frac{9:8}{8}$ msp (increase bow pressure, decrease finger pressure) $\frac{5:6}{8}$

pp 432123432... (keep this movement going...)

pf $\frac{3:2}{8}$ $\frac{3:2}{8}$ $\frac{7:6}{8}$ $\frac{4:3}{8}$

ff ff pp pp ff

Red. Red.

67

bcl $\frac{5}{8}$ $\frac{3:2}{8}$ $\frac{13:10}{8}$ $\frac{4}{8}$

trb $\frac{7:6}{8}$ $\frac{8:7}{8}$ $\frac{1\frac{1}{2}}{8}$ VII 5 9

vc $\frac{11:9}{8}$ $\frac{4:5}{8}$ $\frac{4:5}{8}$ $\frac{6:5}{8}$ $\frac{3:2}{8}$

ppp sub! ppp ppp ppp ppp ppp ppp

mp

gliss. of harmonics based on low C fingering (fundamental inaudible!)

Red.

69

bcl pp p p

trb mp mf

vc mf mf msp

pf fff ppp pp

4 $3:2$ 3 $7:6$ 6

4:3 3:2 3:2 4:5 3:2 3:2 3:2

III nat 9:8 mst 5:6 4:3

5:4 3:2 5:4

3

71

bcl mp mp mp mf

trb f f

vc f f f f psp sul III

pf p mp

6 $4:3$ 10:9 5

III 1/2 4:5 VI 1/2 I 1/2

(msp) nat psp sul I 4:3 psp sul III

7:8 4:3

3

72

5/8 $7:6$ 4/8 $3:2$ $4:3$ tr (B \sharp) tr (B \flat) change to clarinet in A* 3/8

mf fff

VII $1\frac{1}{2}$ VI $1\frac{1}{2}$
2 5 / 8 V FIV $1\frac{1}{2}$
VI $1\frac{1}{2}$
11 10 9 8
7:5 $7:5$ (F valve) tr $7:6$ remove mute*

f fff

psst mst nat
4:3 7:8 7:6 con sord.*

(psp) II I 1/4 II

4:5 4:3 3:2 4:3 3:2 3:2 3:2 3:2 3:2 fff

(3)

* If *basalt* is to follow:
clarinettist retains bass clarinet
trombonist removes mute
cello remains *senza sord*
the F \sharp sustained by the piano's third pedal is allowed to resonate until inaudible
and *basalt* begins after the briefest possible pause.

If part 2 of *tkiva* is to follow:
clarinet changes to clarinet in A
trombonist removes mute
cello is muted
during the rests at the beginning of part 2 which begins without a pause
and the piano's third pedal is released where indicated.

2 ... to Thelonious Monk

3/8 $\text{♩} = 60$

1

A cl *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp*

trb *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp*

vc *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp*

pf *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp*

(3)

6

A cl *ppp* *pp* *ppp* *pp* *ppp* *pp* *ppp* *pp*

trb *ppp* *pp*

vc *pp* *ppp* *ppp* *pp* *ppp* *pp* *ppp* *pp*

pf *pp*

(crescendi always from *ppp* to *pp*)

(crescendi and diminuendi always between *ppp* and *pp*)

(*Red.*)

11

A cl

trb

vc *(psp)*

pf *pp*

(*Red.*)

4/8

15

4/8

A cl

pp

3:2

3:2

6:4

13:11

3/8

4:3

ppp

trb

13:12

vc

(psp)

3:2

3:2

17:12

pf

10:9

10:7

9:7

pp

senza Ped.

Ped. sempre

18

A cl

11:10

10:9

3:2

13:11

trb

10:7

vc

(psp)

8:9

3:2

3:2

3:2

pf

8:7

13:12

pp

Ped.)

23

A cl

5:6

6:4

7:5

trb

3:2

6:5

3:2

3:2

3:2

3:2

vc

(psp)

8:7

6:5

7:8

7:5

pf

5:4

4:5

5:6

pp

(Ped.)

28 4 8 10:7 (L23) 21

A cl *pp*

trb *pp*

vc (psp)

pf *pp* (Ped.)

32

A cl *ppp*

trb *ppp*

vc (psp)

pf *pp* (Ped.)

37

A cl

trb

vc (psp)

pf *pp* (Ped.)

42

A cl

trb

vc (psp)

pf (pp)

(Ped.)

47

A cl

trb

vc

pf (pp)

(Ped.)

(Ped. sempre)

51

A cl

trb

vc (psp)

pf (pp)

(Ped.)

56

A cl

trb

vc

pf

(Led.)

10:7

4:3

9:8

6:4

(psp)

3:2

10:7

11:8

(pp)

5:4

61

A cl

trb

vc

pf

(Led.)

9:8

3:2

4

8

6:4

III 1/2

6:4

IV

(psp)

3:2

3:2

(pp)

5:4

13:11

(Led.)

64

A cl

trb

vc

pf

(Led. sempre)

4:3

3

8

5:6

11:12

10:9

6:5

VI

(psp)

9:7

3:2

(pp)

68

A cl

trb

vc (psp)

pf

5:6

9:11

13:10

3:2

4:5

7:5

11:9

3:2

7:5 (pp)

(Led.)

73

A cl

trb

vc (psp)

pf

3:2

3:2

7:9

3:2

7:6

3:2

9:7

7:5

(pp)

(Led.)

76

A cl

trb

vc (psp)

pf

9:10

6:7

3:2

(pp)

(Led.)

4
8

79

A cl

4/8

pp

tr

4:5

11:10

3/8

3:2

3:2

ppp

* = upper pitch produced by adding B \flat and B \sharp trill keys to fingering of adjacent lower pitch

(psp)

trb

10:11

mst (long bows)

6:4

6:4

6:4

5:4

8:7

4:5

14:11

pp

ppp

pf

83

A cl

trb

6:4

3:2

vc

(psp)

4:3

4:5

9:7

pf

14:11

(pp)

3:2

(Led.)

88

A cl

trb

7:8

8:7

11:8

vc

(psp)

10:9

5:4

pf

(Led.)

93

A cl

trb

vc

pf

(Ped.)

4
8

8

pp

(psp)

10:11

msp

mst

msp

mst

msp

mst

msp

4:3

3:2

5:6

3:2

3:2

3:2

3:2

3:2

6:5

via sord.*

* If *Flechtwerk* is to follow:
clarinetist retains clarinet in A
and *Flechtwerk* begins after the briefest possible pause.

If part 3 of *tkiva* is to follow:
clarinet changes to bass clarinet
cello removes mute
during the rests at the beginning of part 3 which begins without a pause

3 ... to Eric Dolphy

1

8 8 $\text{♩} = 100$

trb mf fff sfz

vc sfz

pf sfz

II $\text{VI}\frac{1}{2}$ FIV / FIII 4 5 6 7 11:10 7 16 9 16

FIV $\text{FV}\frac{1}{2}$ / FIII FVI FI 6 8 9 10 7 4 5 6 5 8 12

3:2 9:8 4:3

psp

Red.

3

9 16 11 16 13 16

trb ff mp

vc ff mp

nat psp nat msp mst

3:2 5:4 3:2 5:4

ff mp

5

13 16 11 16

trb mp fff

vc mp fff

msp 4:3 3:2 7:5 4:5 5:6 6:7

3:2 5:4 7:5 4:3 4:3 5:6 10:7

mp fff

Red.

6

11 16 7 16 8

bcl fff ppp p sub

tr (L123) (F# + Eb)

5:6

pf p

(Red.)

Musical score for measures 8-16, featuring Bcl, Trb, and Vc.

- Measure 8:** Bcl has a trill in the right hand (R12), marked *mp*. Vc starts with a piano accompaniment marked *mp* and includes the instruction "(secco!)" below the staff.
- Measures 9-13:** Trb and Vc have a melodic line marked *ff*, with rhythmic ratios of 4:3 and 3:2 indicated above the staff. Vc also has a "pst" (pizzicato) marking.
- Measures 14-16:** Trb and Vc continue the melodic line, marked *mf* and *f* respectively, with rhythmic ratios of 4:3 and 3:2.

Musical score for measures 11-13, featuring Bcl, Trb, Vc, and Pf.

- Measure 11:** Bcl and Trb have sustained notes marked *pp*. Vc has a "psp sul IV" (pizzicato sul fourth string) marking. Pf has a melodic line marked *ff* with rhythmic ratios of 9:8, 5:6, and 10:7.
- Measure 12:** Bcl and Trb have sustained notes. Vc and Pf have sustained notes marked *pp*.
- Measure 13:** Bcl and Trb have sustained notes. Vc has a sustained note marked *pp*. Pf has a sustained note marked *pp*.

Musical score for measures 14-16, featuring Bcl, Trb, and Pf.

- Measure 14:** Bcl and Trb have sustained notes marked *ff*. Pf has a melodic line marked *ff* with rhythmic ratios of 3:2, 3:2, 3:2, and 5:4.
- Measure 15:** Bcl has a melodic line marked *p* with a "9 Bar" annotation above the staff. Trb and Pf have sustained notes marked *fff* and *mp sub.* respectively. Rhythmic ratios of 4:3 and 5:6 are indicated above the Bcl staff.
- Measure 16:** Bcl and Trb have sustained notes. Pf has a melodic line marked *fff* with a rhythmic ratio of 6:4 indicated above the staff.

16 **5** **8** **7** **16** **3:2** **3:2** **4** **8**

bcl

vc *psp* *IV III II I* *sim...* *5:4* *IV III* *mf* *ff*

fff *ppp*

18 **4** **8** **9:8** **11** **16** **3:2** **8:7** **8** **8**

trb

vc *pizz* *nat* *9:7* *3:2* *f* *p*

mf *mp* *f* *p*

f *p*

20 **8** **8** **5:6** **4:3** **6** **8** **8** **8**

bcl

trb *FIII 1/2* *9:8* *FV 1/2* *FIV 1/2* *FIII* *6:4* *FI* *p* *f*

vc *arco* *psp* *(#)* *7:6* *f* *mp*

pf *5:4* *f* *(mp)*

22 **8** **8** **5** **8** **6:5** **3:2** **8** **8**

bcl

trb

vc *psp* *(nat)* *6:5* *3:2* *ppp* *fff*

pf *mp* *ppp* *fff*

(Red.)

30
24

trb

vc

pf

nat

8:9

7:5

6:7

4:5

4:3

(nat)

mst

f

fff

p

mf

f

3

mf

f

17:16

4

8

5

8

11

16

4:5

27

bcl

trb

vc

pf

11

16

4:5

5:6

4

8

11:8

6

8

5

8

mp

f

fff

ppp

f sub.

ppp

nat

mst

f sub.

ppp

9:7

fff

ppp

mp

f

fff

ppp

Red.

Red.

(LH F key)

(R3+G#)

(slide vibr 1/4 tone either side of indicated pitches)

FV $\frac{1}{2}$

(9/10)

30

trb

vc

pf

5

8

9

16

2

8

5

8

ppp

f

fff

mst

6:5

4:3

f

fff

mf

nat

6:5

4:3

ppp

f

mf

9:8

7:8

Red.

Red.

Red.

Red.

33

vc

pf

5

8

6

8

13

16

(bow on tailpiece)

ppp

15:12

5:6

5:4

ppp

Red.

Red.

Red.

ff

35

bcl 13 16 6:7 9 16 8:9 11 16

trb 10:7 8:9

pf 7:6 6:4 6:7 7:6 7:5

mf *ppp* *f* *p sub.* *pp* *ppp*

Red.

37

bcl 11 16 (LH Eb) tr (R12) 7 16 9:7 5 8

trb 5:6 4:3

pf 6:4 9:8 8:7 6:4 4:3

ppp/mf *mp* *ppp* *mp* *f* *pp* *mf*

Red.

39

bcl 5 8 9 16 4:3 4:3 4:3 4 8

trb (F valve) 4:3

vc 4:3

pf 4:3

ppp (non dim.) *ppp* *ppp* *pp*

32 7 6

41 8 8

(gradually build up spectral multiphonic retaining fundamental)

mf

(gradual transition to multiphonic)

mf

mst

f

5:4 5:4 5:4 5:4

1234321234...

mp

(F valve)

mp

(mst)

mp

f

(quasi senza Ped.)

3:2 3:2 3:2 3:2

Ped.

44 6 13 2 6

8 8 16 8 8

mp

ff

pp

mst

6:7

9:8

3:2

5:4

4:3

3:2

nat

pp

13:10

5:6

ff

pp

Ped.

47 6 5 2 6

8 8 8 8

VII $\frac{1}{2}$ I V $\frac{1}{2}$ II IV $\frac{1}{2}$ III III $\frac{1}{2}$

11 8 11 8 11 8 11

ppp

fff

3:2 7:8

f

ppp

psp sul III

ppp

(psp) --- mst

II III II etc.

7:8

fff

5:4

pp

fff

50

bcl

6/8

8:7

10:9

fff *p* *fff* *p*

vc

7:6

5:4

4:5

fff *p* *fff* *p*

pf

4:3

7:8

5:4

5:4

3:2

fff *p*

Red.

I 4 II 1 III 0 IV 2 III 3 IV 4 III 2 IV 1 mst

I 3 II 4 III 1 II 2 III 3 IV 4 III 2 IV 3 mst

51

bcl

4/8

15:16

10:7

15:16

mp *ppp*

vc

pizz

arco msp

6:4

4:5

4:5

18:13

mp *pp* *ppp*

pf

3:2

p *ppp* *mp*

Red.

53

trb

5/8

6:5

5/8

2/8

8/8

f *ppp*

vc

7:8

3:2

ppp *f*

pf

9:7

7:8

5:4

3:2

f *ppp* *f* *p*

Red.

56

bcl

trb

vc

mf ppp mf ppp mf ppp

5:4 6:7 3:2 7:8 4:3

3:2 7:8 9:6

4:5 4:3 7:6 7:6

57

bcl

trb

vc

pp mp fff

pp mp fff

pp mp fff

(A key) tr

(B

FIV 3 F1 1/2 11

(F valve)

4:3

4:3

4:3

msp

pizz +

arco (♯-)

psp sul I

mst

59

bcl

trb

vc

ppp

ppp

ppp

2 (same fingering)

13 16

fff sub.

(... only breath- and key-noise audible)

air sound

clt (mst) -> msp

* If *nacht und träume* is to follow:
 clarinet changes to clarinet in A
 trombone changes to alto trombone with Mel-O-Wah mute
 cello takes mute and piano prepares EBow etc. during bars 56-60 of part 3
 and *nacht und träume* begins after the briefest possible pause.

If part 4 of *tkiva* is to follow:
 clarinet changes to clarinet in A (after the general pause with which part 4 opens)
 trombone changes to alto trombone with Mel-O-Wah mute
 (during the last bar of part 3)
 and part 4 begins without a pause.

4 ... to Miles Davis

1 GP (11")

♩ = 44

8 8 6 8 8 8

A cl

alto trb (with Mel-O-Wah mute)

vc arco nat 12:11 mst 9:10 msp

pf mp f fff (mp) 4:3

elec cue 1

where the piano part splits into four voices, each voice retains its opening dynamic value except for the notes with dynamics in brackets, which continue the pattern of repeated staccato sounds.

volume level: adjust (slowly and subtly, as necessary) so as to be continuously audible while not masking the melody instruments in heterophony with this line

3

8 8 2 8

A cl

alto trb

pf

elec

4:3 4:3 4:3 8:7 8:7 13:9

III½ 9:10 VII 4:3 III½ I 1½ 6:5 III II½ IV½ VI½

10:7 10:11 16:13 3:2 (mp) 3:2

4

2/8 7/16 11/8 12/8

A cl

p *mf* *p*

VII 7

alto trb

mf *p*

vc

(return IVth string to normal tuning if *nacht und träume* has been played)

nat

p (*mf*)

pf

mp *mf* *f* *p* *mp*

3:2 5:4 11:8

elec

6

12/8 4/8

A cl

p *mf* *p*

(L1) (F# + Eb)

alto trb

(nat) *msp*

vc

mf *p*

pf

mp *ff* (*mp*) *mf* *mp* (*mp*) *p* (*mp*)

10:9 8:9 4:3 4:3 4:3 3:2 3:2 8:9 14:15 3:2 3:2 3:2 3:2

Ped. *Ped.* 23:16

elec

7

4 8 9 8

alto trb

mf *p*

vc

psp *p*

pf

mp

elec

8

9 8 7 8

A cl

p

vc

mf

etc. sim. (trill between gradually rising lower note and "harmonic" upper note always moving irregularly within the same range)

pf

mp *f* *mf* *ff* *mp*

10:9 3:2 3:2 4:3 7:6 6:4

Red.

elec

9 2
8 8

A cl *mf* \rightarrow *p*

IV I II½ II II½ etc. sim... (glissandi between pitches as brief as possible)
5

O+O

arco nat \rightarrow msp \rightarrow (mst)

pizz \rightarrow msp \rightarrow (mst)

1234321234321... etc. sim.

mp *mf* *p*

17:14

8:7

17:15

mp *ff* *mp*

3:2 3:2 3:2

f *mf*

9:7

Red.

elec

11 13
2 8
5 8

A cl *p* *mf* \rightarrow *p*

IV VI½ IV I IV III½

5:6

arco nat \rightarrow nat

(pitches of main and auxiliary notes change independently)

mst msp \rightarrow nat

mf *p* *p* *mf* *p*

9:8

7:8

mp *f* *mp*

3:2 3:2 3:2

9:11 4:3 4:3

7:8 7:8

Red.

elec

14 13 21

8 9:8 4:5 4:5 6:5 16

A cl *p* *mf* *p*

III½ 1
6 3

alto trb *mf* *p*

vc *p* *(mf)*

msp ----- nat ----- psp

pf *f* *mp* *(mp)* *mp* *f* *(mp)* *mp*

mf *mp* *mp* *ff* *(mp)* *mp*

7:9 8:9 3:2 16:15

elec

Ped.

15 21 4

16 6:5 6:5 6:5 16:11 7:9 8:7 8

A cl *p*

vc *mf* *p*

psp 10:7 10:11

pf *mp* *f* *mp* *ff* *mp* *ff*

mp *mf* *mp* *mp*

8:7 15:13 6:7 10:7

elec

Ped.

16 $\frac{4}{8}$ $\frac{5:6$ 19 $\frac{5:4$ 16

A cl *mf* *p* *tr* ($B \flat$ tr) *5:6*

* diamond-headed notes are fingered and the $B \flat$ trill key depressed to produce the black notes

III $\frac{1}{2}$ ||

alto trb *p* *mf* *p* *5:4*

pf *ff* *mf* *mp* *3:2* *5:6* *3:2* *3:2* *3:2* *5:4*

elec *mp* *mp*

17 $\frac{19}{16}$ $\frac{7}{16}$

A cl *mf* *p* *tr* ($B \flat$ tr) *tr* ($B \flat$ tr) *tr* ($B \flat$ tr+ $B \flat$ tr)

vc *msp* *p* *tr* *tr* *tr* *tr*

pf *mp* *p* *mf* *mp* *mp* *6:4* *6:4* *6:4* *4:3* *4:3* *4:3* *5:4* *4:3* *4:5* *5:4* *5:4* *4:5* *8:7* *4:5*

elec *mp* *f* *mp* *mp*

18 7 16 16 5 5
8 8 8 16 8

(22")

A cl *p* *mf*

III½ 6/7 *tr* IV½

alto trb *p* *mf* *p* *f*

vc (msp) *mf* *p* nat

pf *mp* *mf* *f* *(mf)* *ff* *mp* *Red.* 8:7

elec *mf* *p* *f* *(mf)* *mp* *Red.* cue 2

("solo" - NB there is more than 22 seconds of material, so that the pianist can cue the other players accurately)

21 5 5 4
8 8 8

A cl *f* *tr* (L1) *tr* (B

alto trb *f* *ppp* 7:6

vc nat 10:7 8:9 *f* *ppp*

pf *mf* *ff* *(mf)* *mp* *mf* *Red.* 3:2 4:5 3:2 4:3

elec *mf* *p* *f* *(mf)* *mp* *mf* *Red.*

29

A cl $\frac{7}{16}$ $\frac{5}{8}$ $\frac{4}{8}$ (see bar 16) $\frac{5}{16}$ $\frac{9}{16}$ (alternating B \flat tr, B \natural tr and both)

ppp f

add B \flat tr + B \natural tr $\frac{5:4}$ $\frac{5:4}$

tr

alto trb f ppp

vc ppp f ppp f

mst (\cdot) (\cdot) (\cdot) (\cdot) (\cdot) (\cdot)

msp (\cdot)

pf mf mf fff mf ff mf mf

$\frac{6:4}$ $\frac{7:8}$ $\frac{6:5}$

Red.

elec

33

A cl $\frac{9}{16}$ $\frac{2}{8}$ $\frac{4}{8}$ $\frac{3}{8}$

ppp f

$\frac{6:4}$

alto trb f ppp f

$\frac{4:5}$ $\frac{9:10}$ $\frac{7:6}$ $\frac{7:8}$

vc ppp f ppp

sub. (\cdot) \diamond 4321234321

mp mf mf

$\frac{3:2}$ $\frac{3:2}$ $\frac{3:2}$ $\frac{3:2}$ $\frac{3:2}$ $\frac{3:2}$ $\frac{11:9}$

f mf mf

$\frac{9:11$ (mf)

Red.

elec

36

A cl $\frac{3}{8}$ $\frac{6}{8}$ $\frac{7}{16}$ $\frac{4}{8}$

ppp f (f) ppp

alto trb ppp f ppp f

vc nat psp msp f ppp

pf mf f mf p (mf) mf

$5:4$ $19:13$ $15:16$ $6:5$ $3:2$ $3:2$ $9:7$ $Ped.$

elec

39

A cl $\frac{4}{8}$ (vibr.) ppp

alto trb (vibr.) ppp sub. + (vibr.) ppp

vc mst (vibr.) ppp

pf mp p mf f mp f p mp mf

$Ped.$ $Ped.$ $Ped.$ $sim...$

(depress pedal immediately after each *staccato* attack to catch "distant" resonance)

43

A cl (vibr.) *ppp* **6** **16** (alternating between L thumb, register key and neither) (alternating between B

alto trb *pp* *mp* *ff* 7:6

vc msp (vibr.) *ppp* pizz *ff* arco mst 8:6

pf *p* *f* *mf* *ff* *f* 4:3 4:3 4:3 3:2 3:2 3:2 7:6

Red. sim. as before...

elec cue 3

46

A cl *ff* *mp* *pp* *mp* *ff* *mp* *pp* *mp* 4:3 5:6

alto trb *mp* *pp* *mp* *ff* *mp* *pp* *mp* *ff* 7:6 9:6

vc (mst) *pp* *mp* *ff* *mp* *pp* *mp* *ff* *mp* arco nat 3:2 4:3 msp pizz arco psp

pf *p* *f* *f* *f* 4:5 9:8 13:10 7:5 5:4 7:6

Red.

elec

49

A cl

tr (G#)
(B

(upper pitch of each pair adds B|

ff mp pp mp ff mp pp mp

alto trb

mp pp mp ff mp pp mp ff

vc

pizz 5:4 pst arco nat 5:6 I II III IV etc. pizz 5:6 mp pp mp ff mp

pf

f ff f f

7:6 13:12 9:6 6:5 11:12 Red. 7:6

elec

| |

52

A cl

ff mp pp mp ff mp pp mp

alto trb

mp pp mp ff mp pp mp ff

vc

arco mst 6:4 nat arco psp (sul II) pizz 5:4 arco nat (mst) mp pp mp ff mp

pf

7:6 7:6 4:3 3:2 8:9 7:6

elec

55

(L123)
tr
(B

A cl

ff mp pp mp ff

II V II V II VI
5 6 5 6 5 4 5 4 5 7

4:3

alto
trb

mp pp mp ff mp pp

mst

7:6 pizz (gett.) arco nat 5:6 msp

vc

pp mp ff mp pp mp

6:5 8:7

ff mf

3:2 13:12 11:12

mf f

3:2 7:6 3:2 3:2 3:2 3:2

ped. f Ped.

elec