

GERMAN TORO PEREZ

LOT

FÜR KLARINETTE, POSAUNE
UND FEEDBACK-ROHRE

(2018-9)

AUFTAGSWERK DES FESTIVALS
ZEITRÄUME BASEL
FINANZIERT DURCH DIE
ERNST VON SIEMENS MUSIKSTIFTUNG

FEEDBACK-ROHRE ENTWICKELT AM ICST
IN ZUSAMMENARBEIT MIT NICOLAS BUZZI

BESETZUNG

{ KLAR. SOPR. IN B
BASSKL. IN B
KB-KLAR IN B.

{ POSAUNE
NACH MÖGLICHKEIT MIT
2. TRICHTER

{ 5 FEEDBACK-ROHRE
8 LAUTSPRECHER (ROHRWERK-VERSION)
(1-2 SPIELER)

MATERIAL

MISCHPULT (7/14)
INTERFACE
COMPUTER
5 FEEDBACK-ROHRE
(S. S III-II)
8 LAUTSPRECHER
1 SUBWOOFER
2 FUNKSTRECKEN MICS.
MIDI-FADER

FEEDBACK-ROHRE

5 DPA 4099
5 VISATON B 100
VERSTÄRKER
(5-KANAL)

SOFTWARE

"FB-CONTROL-LOT-V"
(MAX PATCH VON
NICOLAS BUZZI)

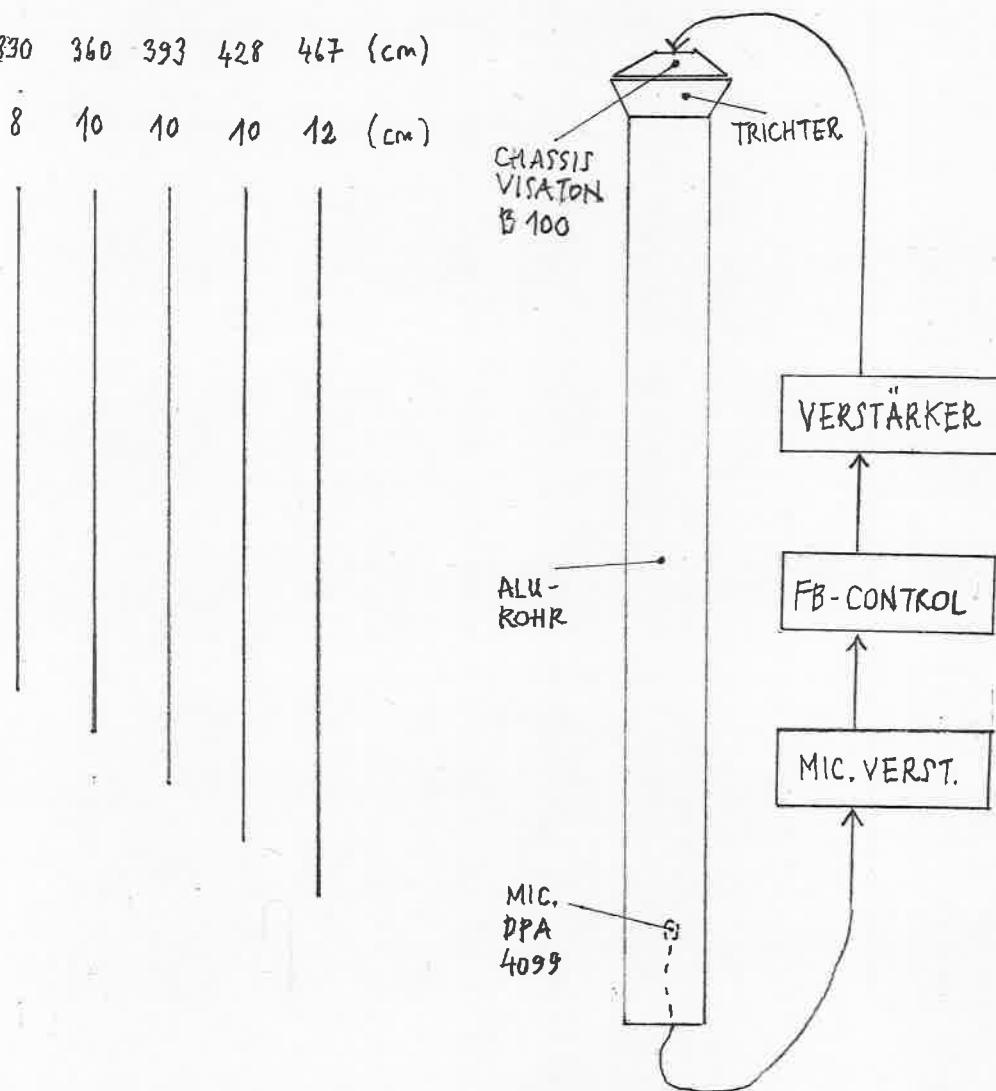
"LOT LE-03"
(MAX PATCH VON
GERMÁN TORO PÉREZ)

FEEDBACK-ROHRE

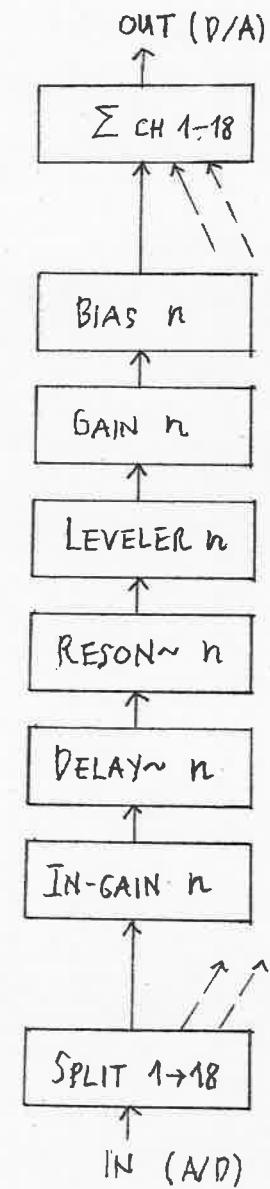
DIMENSIONEN

α	γ	ϕ	ε	Δ
330	360	393	428	467 (cm)
Ø 8	10	10	10	12 (cm)

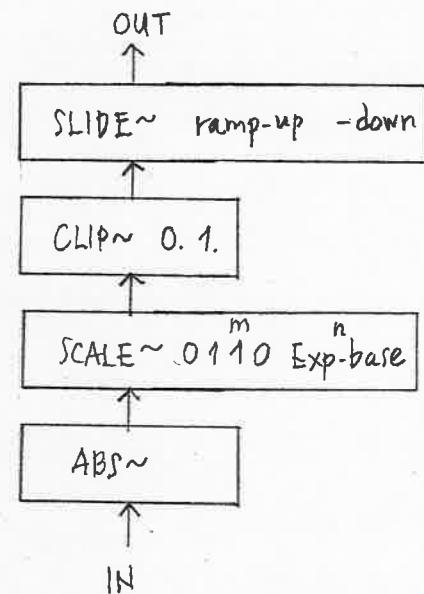
SET UP



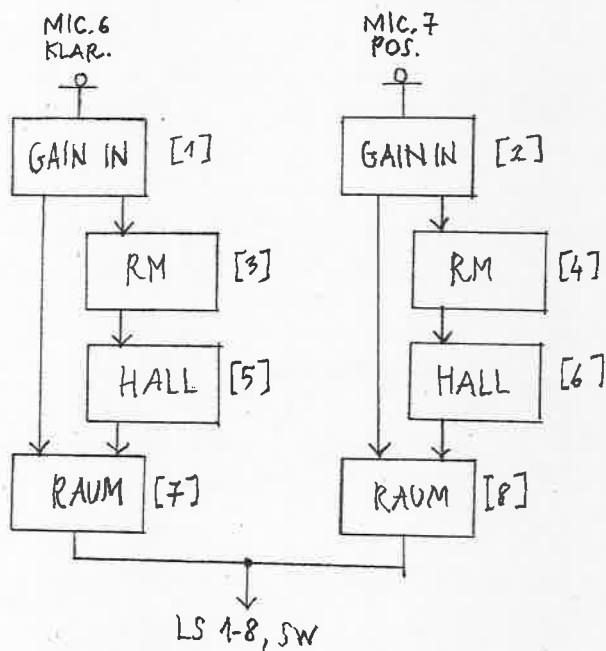
FB-CONTROL



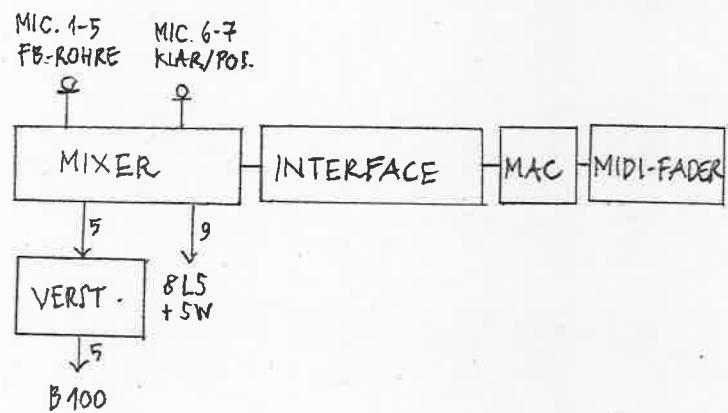
LEVELER



LIVE ELEKTRONIK



SYSTEM

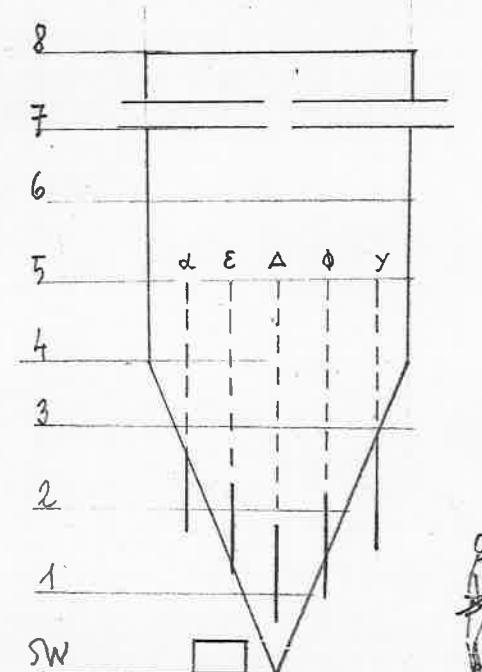
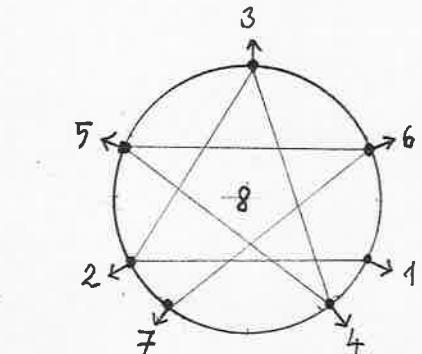


MIDI-FADER

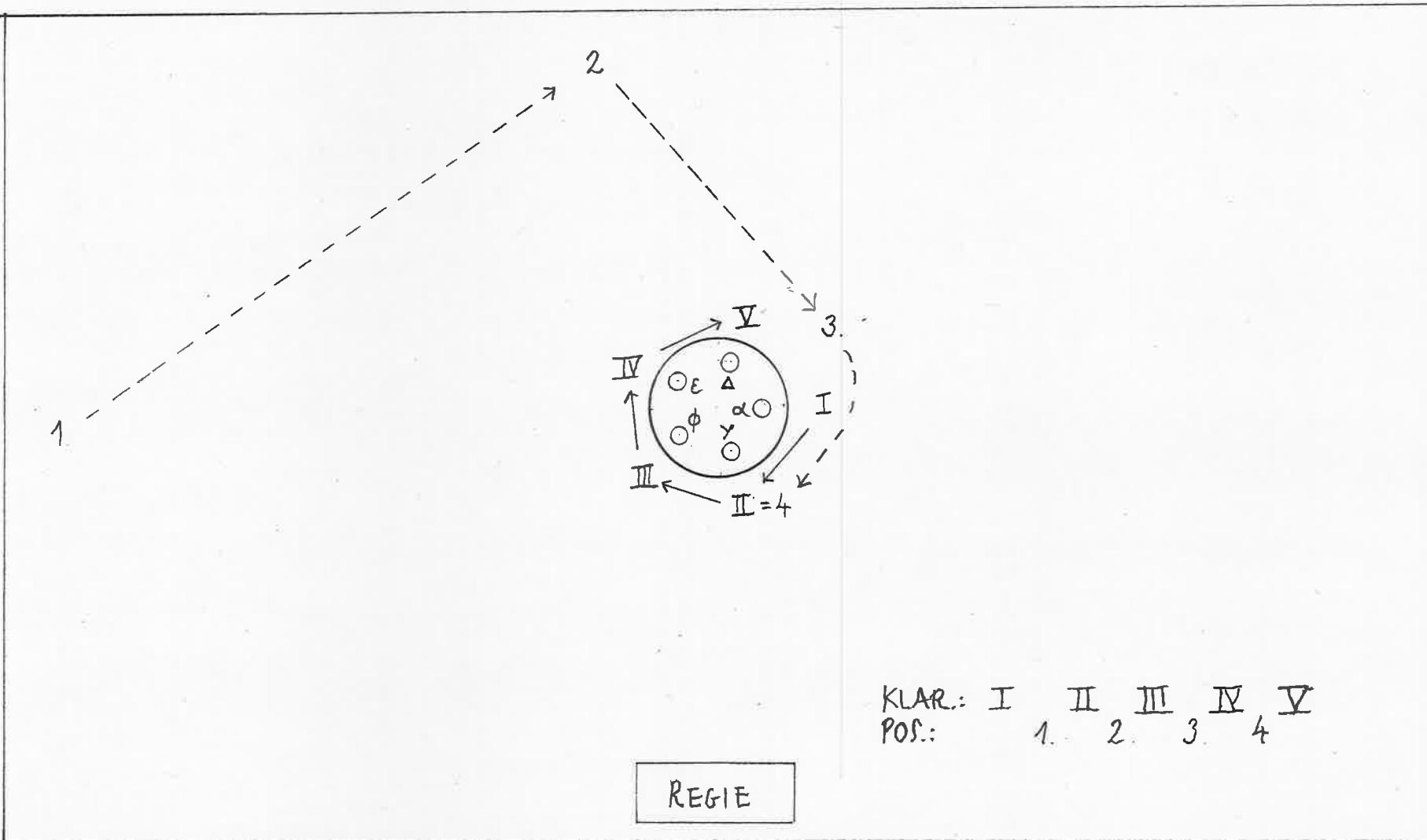
- [1] GAIN IN KLAR.
- [2] GAIN IN POS.
- [3] RM OUT KLAR.
- [4] RM OUT POS.
- [5] HALL OUT KLAR.
- [6] HALL OUT POS.
- [7] RAUM OUT KLAR.
- [8] RAUM OUT POS.

LS-AUFPSTELLUNG

(z.B. Kunsthaus Basel
"Kohrwerk")



AUFSTELLUNG (z.B. Kunstmuseum Basel)



IV

STIMMUNG DER FEEDBACK-ROHRE FÜR "LOT"

$1^\circ \quad 2^\circ \quad 3^\circ \quad 4^\circ \quad 5^\circ \quad 6^\circ \quad 7^\circ \quad 8^\circ \quad 9^\circ \quad 10^\circ \quad 11^\circ \quad 12^\circ \quad 13^\circ \quad 14^\circ \quad 15^\circ \quad 16^\circ \quad 17^\circ \quad 18^\circ$

α
(A5)
9,3 m

γ
(dG)
3,6 m

ϕ
(F)
3,93 m

ϵ
(dE)
4,28 m

Δ
(D)
4,67 m

The score consists of five staves, each representing a different feedback pipe. The pipes are labeled on the left: α (A5, 9,3 m), γ (dG, 3,6 m), ϕ (F, 3,93 m), ϵ (dE, 4,28 m), and Δ (D, 4,67 m). Each staff shows a tuning curve with vertical tick marks. Specific notes are labeled with letters and symbols such as b , d , $b+$, $d+$, $b-$, and $d-$. The staves include a clef, key signature, and time signature.

G.TORO
N.BUZZI
(2018-9)

LOT
für Klarinetten, Posaune und Feedbackrohre

I $\text{J} = 36$

Klar in B (Position I)

FB R.

I $\text{J} = 36$

for Klarinetten, Posaune und Feedbackrohre

1) $\text{f} \text{p} \xrightarrow{5} \text{pp} \leftarrow \rightarrow \text{mp} \text{p} \text{pp} \leftarrow \text{fp} \xrightarrow{5} \text{pp} \leftarrow \rightarrow \text{pp}$

$\triangle 1$ $+ \alpha_{18}$ [101] $\triangle 2$ $+ \alpha_{13}, \gamma_{14}$ [102]

4 $\text{f} \text{p} \xrightarrow{5} \text{pp} \leftarrow \text{hf} \leftarrow \rightarrow \text{pp}$ $\triangle 3$ $+ \alpha_5, \Delta_7 - \alpha_{18}$ [106] $\triangle 6$ marcato f

$\triangle 4$ poco f $\text{pp} \leftarrow \rightarrow \text{fp} \xrightarrow{5} \text{pp} \leftarrow \text{hf} \leftarrow \rightarrow \text{pp}$

$\triangle 4$ $- \alpha_{12}, \gamma_{14}, \phi_{12}, \epsilon_{17}$ [107] $\triangle 5$ $- \text{alle}$ [108] $\triangle 6$ $+ \alpha_{17}$ [109] $\triangle 7$ $+ \phi_{18}$ [110] $\triangle 8$ $+ \alpha_8, \gamma_9, \beta_7$ [111] $\triangle 9$ $+ \alpha_9, \beta_2$ [112]

11

b1sb.
trum.

--- überbl.

marcato

$\text{sfz} >$ 5 [113]

f 6 [114]

f 7 [115]

f 8 [116]

mf 9 [117]

pp 10 [118]

f 11 [119]

14

$\text{mf} > \text{p}$ 12 [118]

pp 13 [119]

$\text{mf} > \text{p}$ 14 [120]

pp 15 [121]

$\text{mf} >$ 16 [122]

f 17 [123]

f 18 [124]

f 19 [125]

Ruhiger

18

--- überbl.

marcato

$\text{sfz} >$ 8 [123]

$f >$ 9 [124]

$f >$ 10 [125]

f 11 [126]

f 12 [127]

f 13 [128]

f 14 [129]

f 15 [130]

f 16 [131]

f 17 [132]

f 18 [133]

21

9 10

10 + Y₁₅
- Δ₇, Δ₁₆, Δ₉, Δ₁₀
[126]

11 + Δ₅, Δ₇, Δ₁₅
- Δ₆, Y₁₅, Δ₈
[127]

12 + Δ₁₄, Δ₇, Δ₁₅
- Δ₇, Δ₁₅
[128]

13 + Δ₃, Δ₁₃, Y₇, Δ₁₄
- Δ₅, Δ₁₄, Δ₇, Δ₁₅
[129]

AD LIBITUM (1) ca 8"

26 1. ZWISCHENSPIEL
 $F = 204$ Klar. wechselt zur Position II

27

28

TACET

25

Posaune (Position I)

ossia

[pp - mf] [mf]

I, II 1) 2)

14 + Δ₁
- Δ₃
[130]

(Bias, Pegel)

15 - alle off

26 27 28

1) I=Haupttrichter (mikrofoniert), alternierend mit:

II= Alternativ-Trichter (nach hinten oder nach oben, nicht mikrofoniert).

2) Instrumentenrichtung wechseln. Echo ausloten

29

f *mf* — *f* *mf* — *f* — *mf* — *f* — *p* — *f* — *f*

f

16
+LS 8

* I II sim., Trichter immer abwechselnd.

30 I II
tk tk d ff

fp — *f* — *f* — *f* — *f* —

17
Nach und nach nach

sim.

* III

Wechselt zur Position 2. F=F

f *p* — *f*

"unten" holen: +LS 7, 6, 5, 4, 3, 2, 1

atacca Teil II

4 4

Klar.
 in B
 (Pos. II)

II $\text{J} = 36$

32

36

39

5

42

$\text{F}^{\#}$

$\pm \text{F}^{\#}$

$\text{fp} > \text{p} = \text{pp} > \text{mf} > \text{f} > \text{sfz} > \text{ff}$

$+ \phi_9, \text{Y}_{14}, \text{E}_7$
[215]

$+ \text{Y}_6, \text{E}_{10}, \Delta_{17}$
 $- \alpha_{12}$
[216]

$+ \gamma_{11}$
[217]

$+ \alpha_{12}, \text{Y}_7, \text{E}_6$
 $- \Delta_{17}$
[218]

$\triangle 23 + \gamma_3$
 $- \alpha_{12}, \text{Y}_6$
[219]

mercato

f

45

Ruhiger

$\text{F}^{\#}$ A^{\flat}

p

$+ \Delta_{4,9}$
 $- \gamma_{11}, \text{E}_{10}$
[220]

$\triangle 24 + \phi_8$
 $- \Delta_{4,9}$
[221]

Ab E^{\flat}

$+ \alpha_6$
 $- \phi_8$
[222]

48

E

$\triangle 26 + \alpha_{12}, \text{Y}_6, \text{E}_7$
 $- \alpha_6$
[223]

$\triangle 27 + \text{Y}_4, \phi_{13}, \text{E}_5, \Delta_6$
 $- \alpha_{12}, \text{Y}_6, \text{E}_7$
[224]

E

$\triangle 28 + \alpha_9, \gamma_3, \phi_{10}$
 $- \text{Y}_4, \phi_{13}, \text{E}_5, \Delta_6$
[225]

AD LIBITUM (2) 10" ca.

2. ZWISCHENSPIEL

$\text{f.} = 150$

T.R. (1/4-Ton Skalen)

51

Pos.
(Position 2)

[de]

— $f =$ $f =$ $f =$ sim.

29 + y_1
- alle
[226]

30

52 $= 36$

$\text{F} = \text{F}$ (Ton)
FRULL.

---o (Luft)

54 $\text{f.} = 150$

TR

$\text{fz} =$ — $f = p$ gliss. f f sim.

2
4

55

$\text{sfz} =$ — $f =$ $f =$ sim. $\text{sfz} =$

2
4

$J = 36$

56 FRULL.

$J = 150$

FRULL.

31

$\frac{4}{4}$ $\frac{2}{4}$

$J = 36$

Basskl.
in B

59 T.R.

FRULL.

(Position III, Bassklar.)

$J = 36$

T.R.

mf = mf = mf = mf = f = pp

32

$\frac{4}{4}$

III (♩ = 36)

62 Basskl. in B
(Position III)

33 +φ18 +x15, ε15 +φ14 +x13, φ13, ε15

(4) [300] [301] [302] [303] [304] 2/4

66

mf = pp sfz f = pp ff

+x10, φ8 -φ14, 18 RM -φ14, 18 +φ5, Δ6

2 -φ15 4 [305] 4 [306] 3 [307] 3 [308] 2 -φ17 4 [309]

[58]¹ EP [3] mt

f fpp = mf = pp mp = > f = pp ff

+x13, φ15, ε18 +Δ13 +φ12 -ε13, 18 +φ2 -φ17

4 [310] 3 [311] 4 [312] 3 [313] 3 [314] 4 [315]

1) Bok/Wendel, S. 70-75

marcato

73

f

$\text{mf} > - \text{mp} = \text{fpp}$

$\text{pp} - \text{fp} = -$

$+ \gamma_1, \epsilon_7$
 $- \phi_{15}$
[315]

$\triangle 38 + \phi_{15}$
 $- \alpha_{15}$
[316]

$\triangle 39 + \Delta_{18}$
 $- \alpha_{9,13}, \phi_{10}$
[319]

$\text{mf} > - \text{f}$

77

$\text{mf} > - \text{f}$

$\text{pp} <-> \text{sf}$

$\text{sf} <-> \text{ff}$

f

$+ \phi_{11}, \Delta_{13}$
[320]

$+ \phi_{7,5}$
 $- \phi_{15}$
[321]

$\triangle 40 + \phi_3, \Delta_5$
 $- \Delta_{18}$
[322]

$\triangle 41 - \alpha_{13}, \Delta_{13}$
[323]

$\text{ff} <-> \text{f}$

1) Bo K/Wendel, S. 70-75

[62] RÜHIGER

B_4° (-) (+)

G_4°

80

[34]¹⁾ [34]²⁾

[33]¹⁾ [30]¹⁾

[50]²⁾ [57]²⁾

41 + ϵ_5
- $\phi_{3,7,11}, \epsilon_{15}, \Delta_5$
[324]

42 + $\phi_{4,10}, \epsilon_{11}, \Delta_5$
- ϕ_5, ϵ_5
[325]

43 + α_7, Δ_{10}
- ϕ_{10}, ϵ_{11}
[326]

44 + ϵ_4
- Δ_5
[327]

AD LIBITUM (3) ca. 13"

Posaune (Position 3)

84

[7]²⁾ [8]²⁾

B_4° (+) B_4°

+ Sord.

[=]

[+]

45 + $\gamma_3, \phi_3, \epsilon_7$
[328]

46 + ϕ_1
- alle
[329]

(Farbe)
[330]

(stille)
- alle
[331]

1) Bok/Wendel S. 70-75

2) Bok/Wendel S. 58-69

3. ZWISCHENSTIEL

$\text{f} = 67 \text{ ca.}$

1) (Farctrillen)²⁾

86 SORP. pos. (Position 3) $2:3$

47 + ϕ_6 + α_5, ε_7 [349] [350] [351] [352] 48 + ϕ_3 + $\gamma_3, \varepsilon_3, \Delta_4$ [353] [354]

89

49 + ϕ_7 + α_6 -alle [355] [356] [357] 50 + ϕ_5 -alle [358] [359] 3 4

91

+ γ_5, Δ_6 51 + ϕ_3 -alle [360] [361] [362] [363] 52 + ε_6 -alle [364] 5

1) Klangfarbmodulation, mit Fingern l.H.
 $a = \text{offen}$, $u = \text{zu}$

2) Klangfarbtriller: bei 32-tel.-Quintalengruppen immer "synchron" (z.B.)
Bei längeren Noten den angegebenen Rhythmus sonst schnell spielen

Bass Kl.
(Position IV)

94

IV

=

ORD. gliss. (↑↓) 5

tun tun a
p = 5 ppp
+Y₅, φ₅ [365] 2/4 +K₄, Δ₇ [366] 4/4 = [400] +ε₁₇ [401] +K₁₃, Y₁₀ -α₄, Y₅, φ₅, ε₆, Δ₇ [402] 5/4

→ Position 4 (= II, Klav.)

97

sl. td accel.

mf > fpp — mp = mf > pp — mf — <> < f — fpp — mf — sfz > mp =

99

7/4 — 4/4 — 3/4 —

5/4 +ε₁₂, Δ₁₈ [403] 5/4 -α₁₃ 4/4 [404] +φ₁₅, Δ₁₄ 4/4 -Δ₁₈ [405] +φ₁₁ 4/4 -ε₁₇, Δ₁₄ [406] +ε_{8,11}, Δ₉ 3/4 +ε₅ [407] 3/4 [3]

[55]¹⁾ *marcato* 100

$\text{G}^{\#}$ $\text{F}^{\#} \cdot (\text{E}^{\#})$

pp f

fz fz fz fz fz fz fz

pp fz fz $\text{mp} = \text{pp}$ mf fp

SL SL SL SL

m_f

$+ \alpha_4, \gamma_4$
- ϕ_{15}, ϵ_8
[408]

$\triangle 56$

$+ \epsilon_{15}$
- α_{11}
[409]

$+ \epsilon_{11}, \Delta_{12}$
- ϵ_{15}
[410]

$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$

103 *accel.*

fz fz

$f = pp$ mp fp fz fz fz fz fz fz fz fz fz fz

$\frac{1}{4}$ $\frac{1}{4}$

$+ \phi_{14}, \epsilon_{15}$
- α_{11}, Δ_{12}
[411]

$+ \alpha_{12}, \gamma_{13}, \Delta_{17}$
[412]

$\triangle 57$ $+ \alpha_9, \epsilon_{11}, \Delta_{13}$
- ϕ_{14}
[413]

$+ \epsilon_7, \alpha_11$
- α_{12}
[414]

$+ \Delta_8$
- Δ_{13}, γ_{17}
[415]

$+ \alpha_6, \phi_7, \epsilon_8, \Delta_9$
[416]

$\frac{1}{4}$ $\frac{1}{4}$

[417]²⁾ *marcato.*

fz fz

$f =$ $fz >$ pp f f f f fz

SL SL SL SL

m_f

$+ \alpha_{12}, \Delta_{13}, \gamma_{17}$
- $\alpha_6, \phi_7, \epsilon_8, \Delta_8, \gamma_9$
[417]

$\triangle 58$ $+ \phi_4, \epsilon_4$

$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$

$+ \alpha_3$
- α_9, Δ_{12}
[419]

$\triangle 59$ $+ \gamma_{11}, \epsilon_{14}$
- α_{11}
[420]

$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$

1) Bok/Wendel, S. 70-75

2) Bok/Wendel, S. 58-69

111

b (5)

p — *f* = *p* — *mf* — *mf* — *p*

mf — *mf* — *p*

p — *mf* — *f* — *p* — *p*

2:

+Δ16 +Y₁₂, φ₁₄ [421] [421]

60 +E₉,₁₀, Δ₁₀ -E₁₂, Δ₁₆ [423]

+Δ11 +Δ₄, E₆ [424] [425]

114

marcato

s.l. 6

sord.

RUTIGER.

Bb G#

p

Posarne (Position 4)

61 +E₃ -E₁₁, φ₁₄ [426]

+Δ3 -E₁₄ [427]

62 -alle außer x₄, E₅ [428]

mf

p

1) Bok/Wendel, S. 58-69

117

63
+ $\alpha_1, \gamma_4, \gamma_5, \Delta_5$
- α_4
[429]

64
+ $\phi_8, \epsilon_4, \gamma$
- γ_4, ϵ_5
[430]

65
+ ϕ_4, α_1
[431]

AB LIBITUM (4) 15" ca.

120

66
+ ϕ_3, ϵ_3
-alle
[432]

67
+ ϵ_1
-alle
[433]

68
(Farbe)
[434]

69
(Stille)
[435]

1) Bok/Wendel S. 58-69

2) Im Spiel integrieren.

4. ZWISCHENSPIEL (Schwankungen)

$\text{J} = 34$ ($\text{f} = 68$)

Posaune
(Position 4)

122

$\text{fp}=\text{pp}$

$\text{sfz}=\text{pp}$

$+Y_5, E_6$

$+\Delta_3, E_3$

$+Y_{11}, \bar{\Delta}_{12}, E_{13}$

$+E_9, \Delta_{10}$

$-\Delta_3, E_3$

$+Y_{16}$

$+\alpha_7$

$-Y_5, E_6$

$[450]$ $[451]$ $[452]$ $[453]$ $[454]$

KB-Klar.
(Pos II)

125

$\text{fp}=\text{pp}$

$f>\text{pp}$

$\text{sfz}=pp$

fp

$-Y_{11}, \bar{\Delta}_{12}, E_{13}$

$+E_5, \alpha_4$

$+E_9, \Delta_{10}$

$-Y_6, \alpha_{15}, \bar{\Delta}_{18}$

$+E_7, \Delta_8, \bar{\Delta}_7$

$+Y_{14}, E_{15}$

$+\alpha_2, \Delta_3$

$-\alpha_7$

$+Y_9, \phi_{10}, \Delta_{12}$

$-E_5, \alpha_4$

$+E_{11}$

$-E_7, \Delta_8, \phi_7$

$-Y_9, \bar{\Delta}_{10}, E_{11}, \Delta_{12}$

$[455]$ $[456]$ $[457]$ $[458]$ $[459]$ $[460]$ $[461]$ $[462]$

V $\downarrow = 36$

KBKL. (Position II)

128

Posaune

$\frac{5}{4}$ [500] [501] [502] $\frac{4}{4}$

$\frac{5}{4}$ [503] [504] $\frac{4}{4}$

(Still.) + Δ_{14} + $\gamma_8, \eta_1, \varepsilon_6, \Delta_7$ 81 + $\gamma_5, \eta_10, \varepsilon_12$ + $\phi_5, \Delta_6, \eta_11$
- $\gamma_8, \eta_11, \Delta_7, \eta_4$

131

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

$\frac{5}{4}$ pp mp = pp $\frac{4}{4}$

trill. 82 + $\gamma_8, \phi_9, \varepsilon_{10}$ + $\varepsilon_{5,8}, \Delta_5$
- $\gamma_5, \eta_{10}, \phi_5, \varepsilon_6, \eta_{12}, \Delta_6$ - γ_8
[505] [506]

134

83 $\gamma_6, \phi_7, \Delta_8$
- alle [507]

+ $\gamma_3, \Delta_{4,5}$ [508]

84 + γ_4
- $\gamma_{3,6}, \phi_7, \Delta_{4,8}$ [509] [510] $\frac{4}{4}$

137

85 + α_9, Δ_{13}
- alle [511]

+ $\alpha_7, \gamma_{10}, \phi_{5,11}, \varepsilon_{6,12}, \Delta_{6,10}$
- Δ_{13} [512]

140

180

$\text{mp} = \text{pp}$
frull. ord. trill.

$\text{mp} = \text{pp}$
ord. frull.

pp

86 + $\gamma_7, \phi_{4,8}$
- alle außer α_7, Δ_{10}
[513] [514]

87 + α_5, ϕ_6
- alle
[515] [516]

+ $\chi_3, \gamma_7, \phi_4, \Delta_9$

3 4 4 4 3 4

143

mp

$\text{p} > \text{pp}$

$\text{p} > \text{pp}$

$\text{p} > \text{pp}$

88 + $\alpha_5, \gamma_7, \Delta_7$ + ε_3, Δ_3
[517] [518]

89 + χ_3, Δ_4 + ε_4
[519] [520]

3 4 4 4 3 4 4 4

147

bis.
6
pp
7:4
7:8
7:8
7:8
7:8
90 + Y₄, E_{5,8}, Δ_{5,9,11}
- alle [521]
6
91 + α_{3,6}, Y₃, Δ_{4,8}
- alle [522]

150

7:7
7:7
7:7
7:7
7:7
92 + α₄, φ₆, E_{3,5}, Δ_{3,7}
- alle [523]
93 + φ_{4,2}, ε₂, Δ₅
- alle [524]

AD LIBITUM (5), 2-3' ca.

152

Zuerst nur den Grundton (1)
und 2. Harm. (2) spielen.

Zuerst nur den Grundton (1)
(Pedalton?) und 2. Harm (2)
spielen.

Feedbackrohre zuerst auf
 Δ_1 mit Schwingungen
spielen.

94 $\alpha_1, \beta_3, \Delta_3$
[525]

95 $+\Delta_1$
- alle
[526]

- Dann, nach und nach übelblasen und zunehmend höhere harmonischen in Kombination mit dem Grundton spielen. Dazu bisbigando, Mikroglissandi, fall und multiphonics verwenden. [ppp → poco f]
- Dann, nach und nach zunehmend höhere Teiltöne mit Mikroglissandi, bisbigando in verschiedenen Geschwindigkeiten, sowie Frallato (Ton/Luft) kombinieren. Immer wieder Grundton und 2. Harm. verwenden. [ppp → poco f]
- Dannach zunehmend höhere Teiltöne aus allen Rohren zu einem vibrierenden, pulsierenden Gesamtklang kombinieren. [ppp → poco f]
KBKL- und Pausen von unten nach oben [Ls. 1-8] verstärken, bis alle 8 Ls. erklingen. Das Stück endet mit höheren Teiltöne aus Rohr Δ .

18.8.2019