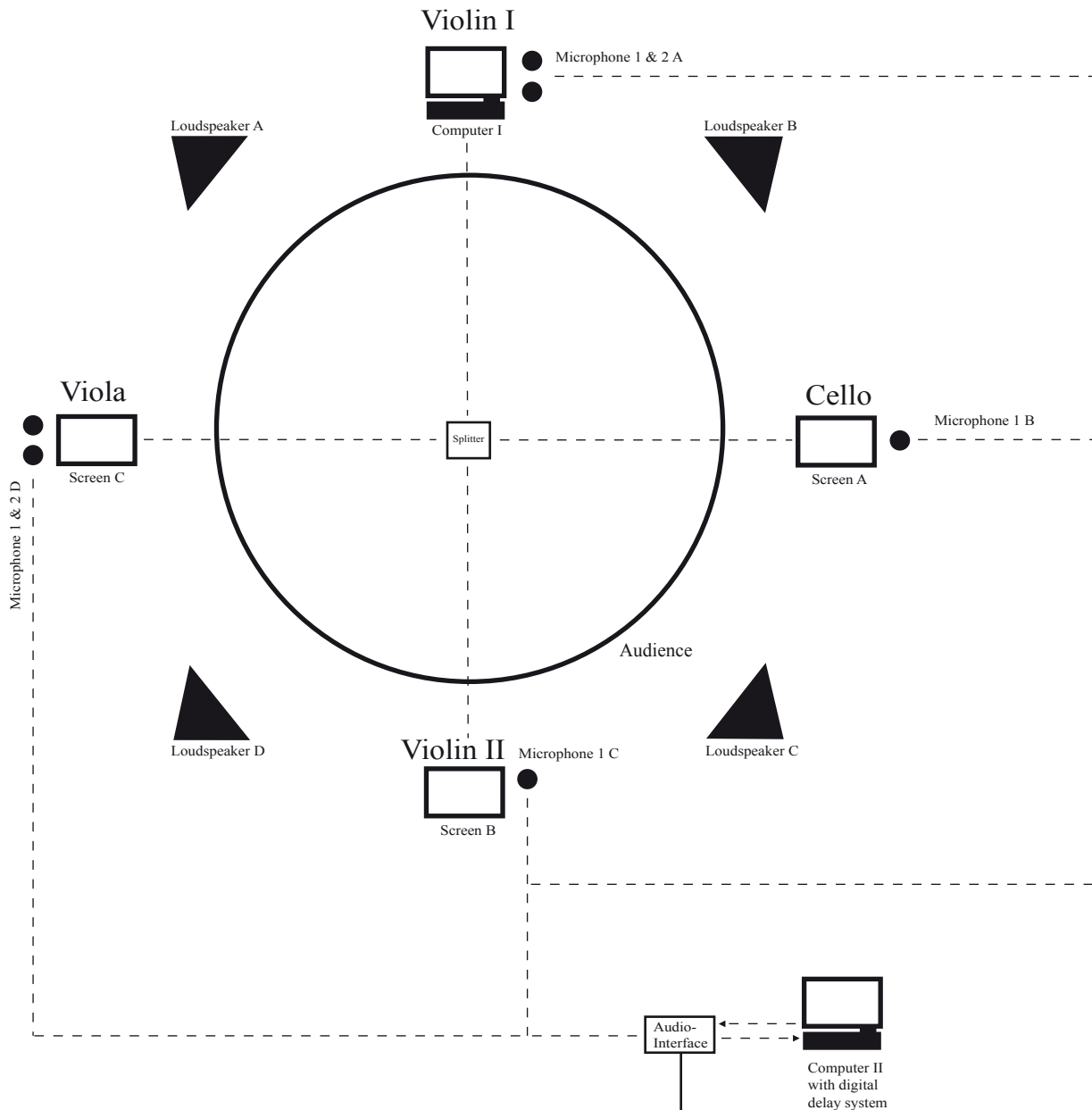


# **DIE LEHRE DES SCHEINS**

-

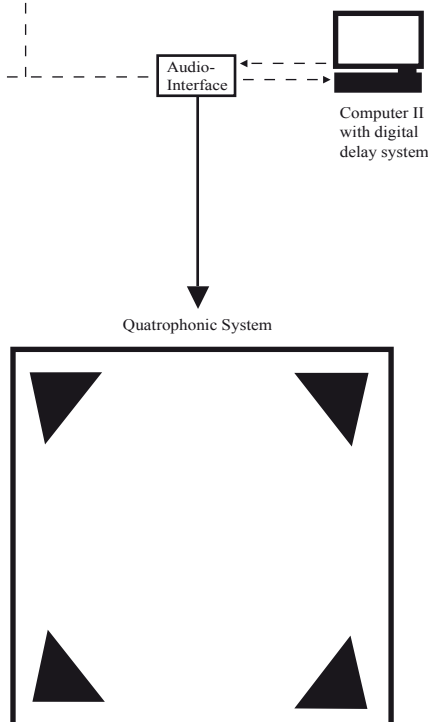
Für Streichquartett und Zeitverzögerungssystem

# RAUMANORDNUNG // ARRANGEMENT OF THE ROOM



Die Zuhöreranordnung ist kreisförmig oder quadratisch auf die Instrumentalisten ausgerichtet. Alle Spieler befinden sich auf einer Bühne. Jede Bühne ist mit einem Mikrophon ausgestattet, die der Violine I und der Bratsche mit zwei Mikrofonen. Computer I ersetzt den Dirigenten: In einem Notationssequenzer wird die einprogrammierte Partitur abgespielt. Alle Instrumentalisten sehen dasselbe Bild, da das Signal über den Splitter an alle Bildschirme gesendet wird. Durch dieses Vorgehen wird ein derart exaktes Spiel erreicht, dass die Automation des Delay-Systems vorprogrammiert werden kann. Die Mikrofone sowie die Lautsprecher und das Zeitverzögerungssystem (welches über die Send- und Busspuren 1-4 läuft) werden von Computer II kontrolliert.

The seats of the listeners are circled or squared towards the instrumentalists. All string players are sitting on a stage. Every stage is equipped with a microphone. Two microphones need to be installed on the stage of the Violin I and the Viola. Computer I replaces the conductor: The programed score is run by a notation-sequencer. All instrumentalists are able to see the same picture, because it is sent to all screens via the splitter. Thereby an exact performance is achieved and the automation of the delay-system allowed to be pre-programed. The microphones are controlled by computer II, as well as the loudspeakers and the time delay system (including the send- and bus-tracks 1-4).



## Einstellung des Digitalen Zeitverzögerungssystems

-

### Settings of the Digital Time Delay System

Jedes Zeitverzögerungssystem wird wie angegeben vorprogrammiert. In der Notation wird angegeben, welche Konfigurationen in dem jeweiligen Abschnitt nicht auf »Bypass« stehen. Diese Systeme werden von den Instrumenten über die Mikrofone angesteuert. Wenn das Delay-System nicht in Betrieb ist, werden auch die Mikrofone stumm geschaltet.

Every delay system is programmed as indicated. It is explained in the notation which configurations are not on »bypass« in the beginning of each paragraph. These systems are accessible to the instruments via the microphones. The instruments are only amplified when the delay is in use.

**F = Feedback (%)**

**D = Delay (ms)**

**LC = Low Cut Filter (Hz)**

**HC = High Cut Filter (Hz)**

**LR = Rate of the Low Frequency Oscillator (Hz)**

**LR = Rate of the Low Frequency Oscillator (Hz)**

**Dr = Dry (%)**

**W = Wet (%)**

**Bus 1:**  $\alpha$  - F [31], D [617], W [44]  
 $\beta$  - F [43], D [333], W [73]  
 $\gamma$  - F [74], D [2241], HC [1126], W [75]  
 $\delta$  - F [54], D [522], LC [221], W [21]  
 $\epsilon$  - D [2117 - 235 - 1845]\*, W [62]

**Bus 2:**  $\alpha$  - F [21], D [47], W [31]  
 $\beta$  - D [742], LC [224], W [71]  
 $\gamma$  - F [31], D [2132] HC [2422], W [42]  
 $\delta$  - F [62], D [624], HC [5622], W [42]

**Bus 3:**  $\alpha$  - F [5] D [72], W [81]  
 $\beta$  - F [38], D [154], LC [448], W [53]  
 $\gamma$  - D [853], W [55]  
 $\delta$  - F [31], D [1542], LC [222], W [32]  
 $\epsilon$  - F [72], D [331], HC [2372], W [43]

**Bus 4:**  $\alpha$  - F [52], D [1215], LC [212], W [88]  
 $\beta$  - F [63], D [423], HC [4131], W [21]  
 $\gamma$  - LR [4.1 - 3.4 - 1.3 - 6.1 - 2.1]\*, LD [21 - 82 - 22 - 33 - 53]\*, Dr [52], W [72]

\*s. notation

# Erläuterungen

Symbole beziehen sich immer nur auf die ihnen jeweils zugeordnete Note. Normale Anweisungen hingegen - wie *sul pont.*, *pizz.*, etc. - gelten so lange bis sie aufgelöst oder durch eine eindeutige andere Anweisung abgelöst werden. Werden Anweisungen in Anführungszeichen gegeben («»), gelten sie wie die Symbole nur für die ihnen jeweils zugeordnete Note. In kursiver Schrift werden spezielle Handlungsanweisungen, in eckigen Klammern zusätzliche Erklärungen gegeben.

**≡, =, z** Tremolosymbole finden sich immer überhalb der Noten.



Glissando von »a« nach »b«; »b« ohne Absetzen mit notierter Dauer spielen. Bei »andauerndem Glissando« wird durchgängig Glissando gespielt. Die Note b befindet sich am Ende des Komplexes.



Rotierender Bogen.



Einen Viertelton erhöht | erniedrigt spielen.



Einen Achtelton erhöht | erniedrigt spielen.



Plötzlicher Stop. Ohne den Bogen vorher abzusetzen wird der nächste Ton gespielt.



Zirkularstrich zwischen Griffbrett und Steg. »Aufstrich« bedeutet hier eine Bewegung vom Steg zum Griffbrett, »Abstrich« eine Bewegung vom Griffbrett zum Steg.



Möglichst unmerklich den Strich wechseln, wenn das Ende des Bogens erreicht wurde.



Spiel hinter dem Steg | Spiel auf dem Steg.



Mit der Kante einer beliebigen Hand auf einen beliebigen Teil des Instruments klopfen.



Töne einzig durch Anschlagen der Saiten mit der linken Hand erzeugen.



Buzz-Pizzicato.



Hammer-on.



Sinuswellen Oszillator




Send-Spur

**Dauer: 10.13 Minuten**

# Explanation


All directions for the usage of an articulation given by a symbol are just related to the notes they are assigned to, whereas written directions - such as *sul pont.*, *pizz.*, etc - last until another clear direction is given. Directions in quotation marks (»«) are just like symbols only related to the notes they are assigned to. Special directions appear italic, further explanation in angled brackets.


 Tremolo symbols are notated above the tones.


 Glissando from »a« to »b«; play »b« with its full duration. The »continuous glissando« is a constant glissando. The tone »b« stands at the end of the complex.

 Rotating bow.

 Play a quarter tone higher | lower.


 Play an eighth tone higher | lower.


 Sudden stop. The next tone is played without releasing the bow.


 Circular bowing in-between fingerboard and bridge. »Up bow« means to move from bridge to fingerboard, »down bow« means to move from fingerboard to bridge.

 Change as imperceptibly as possible to down bow or up bow when the end of the bow is reached.



 Play behind the bridge | Bow on the bridge.

 Tap the instrument at a freely selectable spot with the knuckles of one hand.

 Create the tone by tapping the strings with the left hand.

 Buzz-Pizzicato.

 Hammer-on.

 Pure-Wave-Oscillator.

 Send-track.

**Duration: 10.13 minutes**



# Die Lehre des Scheins

## DIALEKTISCHE ANALYSE I [ ]

Tempo ♩=58

1

V. I sul pont. *ppp* *p* *f* ord. 8va

V. II *f*

B. I molto vibr. *mp* *mf*

Vc. I sul pont. *f* *pp* *f*

6 ord. [ ] *p* *pp* »sul C«

9 *ff* ord. *f* *mp* sul pont. *mp* *ff* pizz. *p* *mp* *mf* ord. *mf*

Musical score for measures 11-15. The score is written for four staves: Violin I, Violin II, Cello/Double Bass, and Bass. Measure 11 features dynamics *p* and *pp*. Measure 12 includes *mp* and *sul pont.*. Measure 13 has *pp*. Measure 14 includes *f* and *»sul A«*. Measure 15 features *mf* and *f*. There are slurs and accents throughout the passage.

Musical score for measures 16-17. The score is written for four staves: Violin I, Violin II, Cello/Double Bass, and Bass. Measure 16 includes *8va*, *p*, *ord.*, *»vibr.«*, and *mf*. Measure 17 includes *»spicc.«*, *»sul A«*, and *pp*. The Cello/Double Bass staff has *col legno tratto* and *p*. The Bass staff has *pp*, *f*, and *ppp*. Measure 17 also features *mp*.

Musical score for measures 18-20. The score is written for four staves: Violin I, Violin II, Cello/Double Bass, and Bass. Measure 18 includes *Tempo* with a quarter note equal to 134, *ppp*, *mf*, and *vibr.*. Measure 19 includes *»sul D«* with a double bar line and a downward arrow, *ff*, *ord.*, and *f*. Measure 20 includes *pizz.*, *ff*, and *f*. The Violin II staff has *pp*. The Violin I staff has *pizz.*, *f*, *ord.*, and *pp*. The Cello/Double Bass staff has *pp*. The Bass staff has *fff*, *f*, and *fff*. Measure 19 also features *sul tasto*.



21

ord. 8va<sup>1</sup>  
vibr.  
ff mf pp  
f  
f

Detailed description: This system contains measures 21, 22, and 23. Measure 21 features a piano part with a forte (ff) dynamic and a violin part with a mezzo-forte (mf) dynamic and vibrato. Measure 22 shows the piano part at mezzo-forte (mf) and the violin part at piano-piano (pp). Measure 23 continues the piano part at forte (f) and the violin part at mezzo-forte (mf). A double bar line is present at the end of measure 23.

24

ord. pizz. ord. pizz.  
mf ff p  
f  
[♮]

Detailed description: This system contains measures 24, 25, and 26. Measure 24 has a piano part at mezzo-forte (mf) and a violin part at mezzo-forte (mf). Measure 25 features a piano part at forte (f) and a violin part with a forte (ff) dynamic and pizzicato (pizz.) instruction. Measure 26 shows the piano part at forte (f) and the violin part at piano (p) with a pizzicato (pizz.) instruction. A double bar line is at the end of measure 26.

28

Tempo ♩=93

ord. 8va  
col legno tratto  
pp f mf ord.  
mf

Detailed description: This system contains measures 28, 29, 30, and 31. Measure 28 has a piano part at piano-piano (pp) and a violin part at forte (ff). Measure 29 features a piano part at forte (f) and a violin part at forte (ff) with an 8va instruction. Measure 30 shows the piano part at forte (f) and a violin part at mezzo-forte (mf) with a col legno tratto instruction and an 8va instruction. Measure 31 has a piano part at mezzo-forte (mf) and a violin part at mezzo-forte (mf) with an 8va instruction. A double bar line is at the end of measure 31.

30

mf

ord.

8va

pp

pizz.

f

ff

ppp

contin. gliss.

8va

f

sul pont.

ord.

f

pp

ord.

f

DIALEKTISCHE ANALYSE II [Bus 1-3: α]

34

8va

f

0.0 dB

-9.5 dB

-∞ dB

p

mp

mf

ff

col legno battuto

8va

ord.

f

0.0 dB

-8.5 dB

-∞ dB

pp

mp

Bus 1 to B

0.0 dB

-∞ dB

Bus 3 to D

0.0 dB

-∞ dB

The image shows a musical score with five staves and associated dynamic markings and dB gain curves. The staves are as follows:

- Staff 1 (Top):** Treble clef. Dynamic markings: *ff*, *f*. dB gain curve: 0.0 dB at 38, 0.0 dB at 2, -9.5 dB at 3, 0.0 dB at 1, 0.0 dB at 2, and  $-\infty$  dB at 3.
- Staff 2:** Treble clef. Dynamic markings: *ff*, *mf*, *ff*. dB gain curve: 0.0 dB at 1,  $-\infty$  dB, and 0.0 dB at 1.
- Staff 3:** Bass clef. Dynamic markings: *ff*, *f*, *ff*. dB gain curve: 0.0 dB at 1,  $-\infty$  dB, and 0.0 dB at 1.
- Staff 4:** Bass clef. Dynamic markings: *mp*, *f*, *ff*, *f*. dB gain curve: -3.6 dB at 2, -3.6 dB at 2, and  $-\infty$  dB at 3.
- Staff 5:** Bass clef. Dynamic marking: *mp*. dB gain curve:  $-\infty$  dB.

Additional labels include "ord." above the first staff, "Bus 1" below the fourth staff, "Bus 2 to A-C" below the fifth staff, and "Bus 3" below the sixth staff. The dB gain curves are connected by lines across the staves, indicating signal flow and gain changes.

Tempo ♩=85

41

*p*  
*8va*  
*pizz.*  
*0.0 dB*  
*ff*  
*fff*  
*8va*  
*pizz.*  
*-∞ dB*

+1.4 dB  
0.0 dB  
-∞ dB

*pp*  
*col legno tratto*  
*mp*  
*-∞ dB*  
*0.0 dB*  
*-∞ dB*

*ord.* *z*  
*ff*  
*ord.*  
*ff* ————— *f*  
[↑↓]  
*f* ————— *ff*  
*+6.0 dB*  
*-∞ dB*  
*col legno tratto*  
*mp*

44

8va  
ppp

col legno tratto  
8va  
pp

col legno tratto  
8va  
mp

ord.  
ppp

ord.  
ppp

Bus 1  
mp

»spicc.«  
8va  
mf

0.0 dB  
+6.0 dB

Bus 2  
-∞ dB

0.0 dB  
-∞ dB

Bus 3  
-2.0 dB  
-∞ dB

-2.0 dB  
-∞ dB

48

8va  
f

ppp

pizz.  
f



59

*contin. gliss.*

*pp* *mf* *fff*

[manchmal wird das »contin. gliss.« derart langsam gespielt, dass es kaum noch als Glissando wahrgenommen wird; dabei wird quasi unmerklich die Tonhöhe in kleinstmöglichen Schritten verändert]

Bus 1 to B

Bus 2 to A

Bus 3 to C-D

63 *contin. gliss.* *sul pont.*

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

*fff* *f* *ff*

*mp* *f*

*ord.* *8va* *quasi* *contin. gliss.* *»sul C«* *»sul D«* *pizz.*

68 0.0 dB

*pp* *f* *pppp* *p* *ff* *f* *pp* *»sul D/G«*

*8va sul tasto* *ord.* *»sul D/G«* *contin. gliss. | sul pont.*

0.0 dB *pp* *mf* *pppp* *p* *ff* *mf*

Bus 1 -3.0 dB

Bus 2 -3.0 dB

Bus 3 -3.0 dB

0.0 dB 0.0 dB 0.0 dB

-3.0 dB -3.0 dB -3.0 dB

-∞ dB -∞ dB -∞ dB





83

89

DIALEKTISCHE ANALYSE VI [Bus 1-2: γ, δ; Bus 3: δ, ε; Bus 4: α, β]

12 MIC II 0.0 dB

104

Musical staff 1: Treble clef, 3/4 time signature. Dynamics: *ff*, *f*, *ff*, *f*, *ff*. Includes a measure rest [i].

Musical staff 2: Treble clef, 3/2 time signature. Dynamics: *f*, *ff*. Includes "sul pont." and "pppp" markings.

3 MIC II 0.0 dB

Musical staff 3: Bass clef, 3/4 time signature. Dynamics: *ff*. Includes "[no 2nd pizz.]" marking.

Musical staff 4: Bass clef, 3/4 time signature. Dynamics: *f*, *pp*, *ff*, *mf*. Includes "pizz.", "ord.", and "sul pont." markings.

106

Musical staff 5: Treble clef, 3/4 time signature. Dynamics: *pppp*, *ppp*, *p*. Includes "sul pont.", "8va", and "ord." markings.

Musical staff 6: Bass clef, 3/4 time signature. Dynamics: *ff*. Includes "8va" and "[i]" markings.

Musical staff 7: Bass clef, 3/4 time signature. Dynamics: *ff*, *fff*. Includes "[i]" markings.

109

[!] ord.

*mf*

0.0 dB

*f* *mf*

*ff*

*mf f*

[!] ord.

*f*

*mf f*

sul pont.  
8va

*mf f*

Bus 1 to C

-4.1 dB

-∞ dB

Bus 2 to A

+1.9 dB

-∞ dB

Bus 3 to D

-7.6 dB

-∞ dB

115<sup>8va</sup> sul pont. [↕]

*f*

ord. molto vibr. [↕]

8va [↕]

*fff* *f*

[↕] [↕] [↕]

Bus 1

+2.0 dB

-4.1 dB

-17.4 dB

-15.4 dB

-2.7 dB

-2.7 dB

-∞ dB

Bus 2

+2.0 dB

+3.0 dB

-14.5 dB

-27.9 dB

-22.0 dB

-8.5 dB

-∞ dB

-2.7 dB

0.0 dB

-∞ dB

-∞ dB

-32.2 dB

-14.5 dB

Bus 3

+3.7 dB

+3.7 dB

-23.7 dB

-17.4 dB

-4.6 dB

0.0 dB

-17.4 dB

-∞ dB

-1.0 dB

-∞ dB

Bus 4 to B

0.0 dB

-21.5 dB

-12.4 dB

-18.5 dB

-12.4 dB

0.0 dB

-10.5 dB

-3.6 dB

-21.5 dB

0.0 dB

-31.1 dB

-7.6 dB

-36.5 dB

117

sul pont. [↕]  
8va

fff

[↕]

[↕]

8va

fff

fff

sul pont. [↕]  
8va

[↕]

[↕]

[↕]

Bus 1

fff

-2.7 dB

0.0 dB

-11.2 dB

+2.6 dB

-9.5 dB

-21.5 dB

-∞ dB

Bus 2

-3.1 dB

-3.1 dB

-3.1 dB

-∞ dB

Bus 3

+1.5 dB

-5.3 dB

-18.5 dB

-35.0 dB

-1.1 dB

0.0 dB

-13.6 dB

+3.4 dB

-∞ dB

Bus 4

-4.6 dB

-3.1 dB

-28.9 dB

+2.4 dB

-15.9 dB

-28.9 dB

0.0 dB

-9.5 dB

-∞ dB

II ord.  
*pp*

119

8va

Bus 1 *fff*

Bus 2 *fff* pizz.

Bus 3

Bus 4

Automation values for Bus 1: -2.2 dB, -19.0 dB, -1.1 dB, -∞ dB, -8.5 dB, -∞ dB, -4.1 dB, -∞ dB

Automation values for Bus 2: -3.1 dB, 0.0 dB, -∞ dB, +1.2 dB, -∞ dB, +1.2 dB, -27.0 dB, +1.2 dB, -25.2 dB, +1.2 dB, 42.0 dB, -6.7 dB, -19.0 dB, +1.2 dB, -66.1 dB

Automation values for Bus 3: -∞ dB, +1.2 dB, -∞ dB, 0.0 dB, -∞ dB

Automation values for Bus 4: -1.1 dB, -18.5 dB, -∞ dB, -1.1 dB, -∞ dB

122

*fff*

*pizz.*  
*8va*

*poco vibr.*  
*pp*

*ord. poco vibr.*  
*ppp*

*pp*

*»sul C/D«*  
*mf*

Bus 1

Bus 2						-50.2 dB
						-∞ dB
Bus 3						-50.2 dB
						-∞ dB
Bus 4						-50.2 dB
						-∞ dB
						-50.2 dB
						-∞ dB

130

*ord.*  
*ppp*

*ord. pppp*

*ord. pizz.*  
*ff*

*ord.*  
*pppp*

*ord.*  
*pppp*

18 Tempo ♩=163

138 sul pont.

Musical score for measures 138-141. The score is written for four staves: Violin I, Violin II, Viola, and Cello/Double Bass. Measure 138 features a *ppppp* dynamic with a *sul pont.* instruction. Measure 139 includes *ord.* and *pp* dynamics. Measure 140 has *f* and *pp* dynamics. Measure 141 includes *ppp*, *molto vibr.*, and *poco vibr.* markings. A *pp* dynamic is also present in the Cello/Double Bass staff at the end of measure 141.

142

Musical score for measures 142-144. The score is written for four staves: Violin I, Violin II, Viola, and Cello/Double Bass. Measure 142 has *mp* dynamics. Measure 143 includes *ord.* and *mp* dynamics. Measure 144 features *pppp*, *f*, *ff*, and *ppp* dynamics. The Viola staff has an *ord.* marking and an *8va* instruction. The Cello/Double Bass staff has *mf* and *pp* dynamics. A bus effect is indicated with *Bus 1*, *-∞ dB*, *-3.4 dB*, and *-∞ dB*.

145

Musical score for measures 145-147. The score is written for four staves: Violin I, Violin II, Viola, and Cello/Double Bass. Measure 145 has *pp* dynamics. Measure 146 includes *ff* and *mp* dynamics. Measure 147 features *f* and *mp* dynamics. The Viola staff has *sul pont.*, *quasi f*, and *fff* markings. The Cello/Double Bass staff has *mf*, *molto vibr.*, and *pppp* markings.



148

poco vibr.

Musical score for measures 148-152. The score consists of four staves. The first staff (treble clef) has a dynamic marking of *mp* and a *poco vibr.* instruction. The second staff (treble clef) has a dynamic marking of *fff* and an articulation marking of *pizz.*. The third staff (bass clef) has a dynamic marking of *mp* and an articulation marking of *ord.*. The fourth staff (treble clef) has a dynamic marking of *p* and an articulation marking of *ord.*. The score is divided into three measures. The first measure ends with a double bar line. The second measure ends with a double bar line. The third measure ends with a double bar line. The dynamic markings are *mp*, *fff*, *mp*, and *p*. The articulation markings are *poco vibr.*, *pizz.*, and *ord.*. The score is written in a key signature of one flat and a time signature of 3/4.

153

Musical score for measures 153-157. The score consists of four staves. The first staff (treble clef) has a dynamic marking of *fff*. The second staff (treble clef) has a dynamic marking of *ff*. The third staff (bass clef) has a dynamic marking of *fff* and an articulation marking of *pizz.*. The fourth staff (treble clef) has a dynamic marking of *mf*. The score is divided into two measures. The first measure ends with a double bar line. The second measure ends with a double bar line. The dynamic markings are *fff*, *ff*, *fff*, and *mf*. The articulation marking is *pizz.*. The score is written in a key signature of one flat and a time signature of 3/4. Below the staves are four bus routing diagrams labeled Bus 1, Bus 2, Bus 3, and Bus 4. Bus 1 is connected to the first staff. Bus 2 is connected to the second and third staves. Bus 3 is connected to the third and fourth staves. Bus 4 is connected to the fourth staff. The bus routing diagrams show the following dB values: Bus 1: -∞ dB to -∞ dB; Bus 2: -∞ dB to -3.6 dB to -∞ dB; Bus 3: -∞ dB to -9.8 dB to -9.8 dB to -∞ dB; Bus 4: -∞ dB to -4.3 dB to -∞ dB; Bus 2 (second measure): -∞ dB to -2.7 dB to -∞ dB; Bus 4 (second measure): -∞ dB to -6.1 dB to -∞ dB.

8va

sul pont. *p* *ppppp* *ord.* *ppppp*

*ff* *col legno tratto* *pp* *mf*

*col legno tratto* *ord.* *p*

*p* *Bus 2* *mf* *p* *pp* *mp*

*Bus 2* *-2.0 dB* *-∞ dB* *-∞ dB*

*Bus 4* *-4.8 dB* *-∞ dB* *-∞ dB*

*pizz.* *ff*

*ord.* *pp* *mp*

*mf* *p*

*mf* *pizz.* *f*

*Bus 1* *f* *-4.1 dB* *-∞ dB* *-∞ dB*

*Bus 2* *-4.6 dB* *-∞ dB* *-∞ dB*

*Bus 4* *-4.1 dB* *-∞ dB* *-∞ dB*

163

ord.

ff f mp f

f fff f sul pont.

col legno tratto

f f

ord. [↑]

mp f fff

-4.6 dB -4.6 dB -∞ dB

166

ff fff f pizz.

f f

pizz.

fff

sul tasto

Bus 1 f

-7.6 dB -7.6 dB -∞ dB -∞ dB

Bus 2

-4.8 dB -∞ dB -∞ dB

Bus 3

-3.8 dB -∞ dB -∞ dB

Bus 4

-3.8 dB -∞ dB -∞ dB

ord. *p* *f* *pizz.*  
ord. *f* *mf* *PPP*  
col legno tratto *p*  
*pizz.* *p* *mp*  
Bus 1:  $-\infty$  dB,  $-6.0$  dB,  $-\infty$  dB  
Bus 2:  $-2.9$  dB,  $-\infty$  dB  
Bus 3:  $-\infty$  dB,  $-11.6$  dB,  $-\infty$  dB

Tempo ♩=204

ord. *mf* *ff*  
*8va*  
ord. *p* *ff* *pizz.*  
*sul tasto*  
Bus 2:  $-3.6$  dB,  $-\infty$  dB  
Bus 3:  $-\infty$  dB,  $-1.6$  dB,  $-\infty$  dB  
Bus 4:  $-\infty$  dB,  $-2.9$  dB,  $-\infty$  dB

col legno tratto [N] 8va ↑ ff ord. [N]

ord. [N] ff 8va

ff 8va [N] sul tasto [N] f

ff mp sul pont. mf

Bus 1

Bus 2 -5.3 dB, -∞ dB, -∞ dB

Bus 3 -∞ dB, -5.3 dB, -∞ dB

Bus 4 -∞ dB, -3.4 dB, -∞ dB

-2.7 dB, -∞ dB

pizz. ord. 8va mp

fff ord. 8va poco vibr. mp

molto vibr. [N] f ff

mf

Bus 1 -∞ dB, -6.1 dB, -∞ dB

Bus 2 -∞ dB, -1.8 dB, -∞ dB

Bus 3 -∞ dB, +1.0 dB, -∞ dB

Bus 4 -∞ dB, -1.8 dB, -∞ dB

24  
177

8va

*mp*

*f*

8va

*mp*

pizz.

*f*

sul pont.

*mp*

pizz.

*fff*

*ff*

*mp*

*f*

Bus 1

-∞ dB

-2.2 dB

-∞ dB

Bus 2

-∞ dB

-2.2 dB

-∞ dB

Bus 3

1.0 dB

-∞ dB

-∞ dB

Bus 4

0.0 dB

-∞ dB

-∞ dB

179

*f*

*f*

sul pont.

ord.

*mp*

*mf*

ord.

*f*

*f*

*fff*

-0.3 dB

-∞ dB

-∞ dB

-2.9 dB

-2.9 dB

-∞ dB

-∞ dB

-2.2 dB

-∞ dB

-∞ dB

182

ord. *f*

»spicc.« *pp* *p*

*p* *f*

185

*p* *pp*

poco vibr. *p* *ppp*

ord. *p*

189

*pp* *pppp*

*pppp* *p* *pppp*

*pp*

192

*ppp* [i]

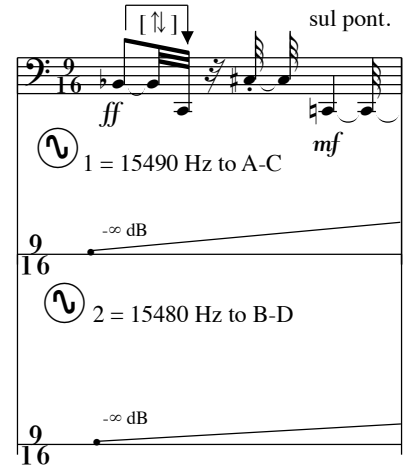
*p* *pp*

*pppp* *pp*

*pp*

Tempo ♩ = 62

Musical score for measures 195-201. It features three staves: Treble, Bass, and Bass. The Treble staff has a dynamic marking of *mp* and a vowel symbol [i]. The Bass staff has a dynamic marking of *pp* and a vowel symbol [i]. The bottom staff has dynamic markings of *pp* and *ppp*.



Musical score for measures 202-208. It features four staves: Treble, Treble, Bass, and Bass. The top Treble staff has a dynamic marking of *ppp* and includes instructions "sul A sul pont." and "sul D". The second Treble staff has a dynamic marking of *mp* and includes "5" and "[!] con sord.". The Bass staff has a dynamic marking of *ppp* and includes "sul pont." and "»sul D/G/C« [G = 0]". The bottom Bass staff has a dynamic marking of *mf* and includes "ord." and "»sul C/G«". The score also includes a "8va" marking and a "f" dynamic marking.





205

»spicc.«

*p*

5

sul pont.

*ppp*

ord.

v v

»sul C/G«

*f* *p*

sul pont.

*ppp* *mf*

1

2

16

16

28 VIII - DAS TRUGBILD DER TUGEND ERSCHEINT

Tempo ♩=117

[[Bus 1: ε; Bus 4: γ]]

Tempo ♩=223

207 sul pont.

mp ff ord. col legno tratto pp

jété pizz. 8va

mf mp

+6.0 dB 0.0 dB -∞ dB

sul C contin. gliss.

pp

Bus 1 to A-B-C-D 2117 ms

0.0 dB -∞ dB

Bus 4 to A-B-C-D 4.1 Hz 21%

0.0 dB -∞ dB

1 2

11 16 17 16 11 8

Tempo ♩=81

Tempo ♩=57

209

ord. sul pont. *ff* ord. »sul E« *p* sul pont. *ppp* *δva*

*p* *mp* *ord.* *fff* *v* *p* *mp*

*fff*

*contin. gliss.*

*<* *π*

Bus 1

11 15 17  
8 8 16

Bus 4

L R L R  
L D L D

11 15 17  
8 8 16

11 15 17  
8 8 16

11 15 17  
8 8 16



Tempo ♩=82

Tempo ♩=132

Tempo ♩=163

Tempo ♩=215

213

ord.

*ppppp* *ppp* *pp* *p* *mp*

*ppp* *pp* *p* *f* *mp*

*p*

Bus 1

Bus 4

L D

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279

280

281

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

395

396

397

398

399

400

401

402

403

404

405

406

407

408

409

410

411

412

413

414

415

416

417

418

419

420

421

422

423

424

425

426

427

428

429

430

431

432

433

434

435

436

437

438

439

440

441

442

443

444

445

446

447

448

449

450

451

452

453

454

455

456

457

458

459

460

461

462

463

464

465

466

467

468

469

470

471

472

473

474

475

476

477

478

479

480

481

482

483

484

485

486

487

488

489

490

491

492

493

494

495

496

497

498

499

500

501

502

503

504

505

506

507

508

509

510

511

512

513

514

515

516

517

518

519

520

521

522

523

524

525

526

527

528

529

530

531

532

533

534

535

536

537

538

539

540

541

542

543

544

545

546

547

548

549

550

551

552

553

554

555

556

557

558

559

560

561

562

563

564

565

566

567

568

569

570

571

572

573

574

575

576

577

578

579

580

581

582

583

584

585

586

587

588

589

590

591

592

593

594

595

596

597

598

599

600

601

602

603

604

605

606

607

608

609

610

611

612

613

614

615

616

617

618

619

620

621

622

623

624

625

626

627

628

629

630

631

632

633

634

635

636

637

638

639

640

641

642

643

644

645

646

647

648

649

650

651

652

653

654

655

656

657

658

659

660

661

662

663

664

665

666

667

668

669

670

671

672

673

674

675

676

677

678

679

680

681

682

683

684

685

686

687

688

689

690

691

692

693

694

695

696

697

698

699

700

701

702

703

704

705

706

707

708

709

710

711

712

713

714

715

716

717

718

719

720

721

722

723

724

725

726

727

728

729

730

731

732

733

734

735

736

737

738

739

740

741

742

743

744

745

746

747

748

749

750

751

752

753

754

755

756

757

758

759

760

761

762

763

764

765

766

767

768

769

770

771

772

773

774

775

776

777

778

779

780

781

782

783

784

785

786

787

788

789

790

791

792

793

794

795

796

797

798

799

800

801

802

803

804

805

806

807

808

809

810

811

812

813

814

815

816

817

818

819

820

821

822

823

824

825

826

827

828

829

830

831

832

833

834

835

836

837

838

839

840

841

842

843

844

845

846

847

848

849

850

851

852

853

854

855

856

857

858

859

860

861

862

863

864

865

866

867

868

869

870

871

872

873

874

875

876

877

878

879

880

881

882

883

884

885

886

887

888

889

890

891

892

893

894

895

896

897

898

899

900

901

902

903

904

905

906

907

908

909

910

911

912

913

914

915

916

917

918

919

920

921

922

923

924

925

926

927

928

929

930

931

932

933

934

935

936

937

938

939

940

941

942

943

944

945

946

947

948

949

950

951

952

953

954

955

956

957

958

959

960

961

962

963

964

965

966

967

968

969

970

971

972

973

974

975

976

977

978

979

980

981

982

983

984

985

986

987

988

989

990

991

992

993

994

995

996

997

998

999

1000

217

mf

p

z

8va

f

mf

»sul C«

»sul G«

f

p

contin. gliss.

Bus 1

Bus 4

L D

L R

1

2

219

The image displays a musical score for measures 219-222, along with several analysis tracks. The score is in 4/4 time and features dynamics such as *f*, *mf*, *ff*, and *mp*. Performance instructions include *sul pont.*, *contin. gliss.*, and *poco vibr.*. The analysis tracks include:

- Bus 1:** A track showing amplitude and phase information, with a circled '1' and a sine wave symbol.
- Bus 4:** A track showing amplitude and phase information, with a circled '4' and a sine wave symbol.
- L/R:** A track showing phase information for the left and right channels, with circled 'L' and 'R' labels.
- Frequency/Amplitude:** A track showing a frequency of 3.4 Hz and an amplitude of 82%.
- Phase:** A track showing a phase shift of 235 ms.
- Gain:** A track showing a gain of 0.0 dB.

The image displays a musical score and a mixing console for a string section. The score at the top features three staves: two treble clefs and one bass clef. The first treble staff has a dynamic marking of *mf* and the instruction "sul pont.". The second treble staff also has a dynamic marking of *mf*. The bass staff has a dynamic marking of *ff*. The score is divided into measures by vertical lines, with a double bar line at the end of the first measure.

Below the score is a mixing console interface. It includes several tracks and meters:

- Track 1:** Labeled "Bus 1", it contains a bass clef staff with a dynamic marking of *p* and a volume knob. The track is marked with a circled "1".
- Track 2:** Labeled "Bus 4", it contains a volume knob and is marked with a circled "D".
- Track 3:** Contains two stereo pairs of volume knobs, labeled "L R" and "L D". A frequency response curve is shown above these knobs, with a peak of 6.1 Hz and a 22% deviation.
- Track 4:** Contains a meter with a circled "1" and a volume knob. The meter shows a reading of -14.5 dB.
- Track 5:** Contains a meter with a circled "2" and a volume knob. The meter shows a reading of -11.6 dB.

At the bottom of the console, there are two stereo pairs of volume knobs, labeled "L R" and "L D". The overall layout is organized into a grid with vertical lines corresponding to the measures in the score above.



242

ord. *mp* *ppp* *pp* *sul pont.*

ord. *pp*

Bus 1

Bus 4

L R L D L D

1 +2.6 dB

2

257

[↕]

Bus 1 1845 ms *p*

Bus 4 0.0 dB 53% 2.1 Hz

L D L R L D L R

+6.0 dB

0.0 dB

-∞ dB

0.0 dB

-∞ dB

+4.2 dB

-38.8 dB

-∞ dB

+4.2 dB

-∞ dB

-∞ dB