

Entanglements

for Sinfonietta and live electronics

Score



Heather Frasch 2026

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Entanglements for Sinfonietta and Live Electronics, 2026 [29 minutes]

Commissioned by : Sitron (Trondheim Sinfonietta)

Developed in collaboration with members of the **SWR Experimental Studio**, Daniel Miska and Elena Ralli, for whom this piece is dedicated.

Premiere at Dokkhuset on 3 May 2026 with Sitron, Daniel Miska and Elena Ralli during meta.morf Festival

Funded by: Norsk kulturråd with extra support from Goethe and the SWR Experimental Studio

Instrumentation

Violin 1

Violin 2

2 Small clips (*info below)

Viola 1

2 small clips (*info below)

Viola 2

Cello

Percussion 1

Bass Drum (prepared with transducer so it rattles)

Thundersheet (prepared with transducer so it resonates) *

Tam Tam (prepared with transducer so it resonates) *

Glockenspiel

Crotales, pitched: E, Eb (sounding 2 octaves higher than written)

3 Temple blocks (small, medium, large)

mid size Cymbal

2-4 Baby Clave

5-7 long thin wooden sticks (~45 cm long, 5 cm diameter) ; 1 prepared with string

1 wooden pencil prepared with string

1 small piece of light wood (~10 cm x 19 cm x 1 cm), prepared with string

~ 10 small styrofoam balls (~3 cm diameter)

Bow, 2 hard plastic mallets

Object Player (Percussion 2)

1 small speaker cone (transducer with paper cone)

1 tin coffee can

1 glass jar (~8 cm diameter)

1 pinecone

3-4 small foam balls (~3cm diameter)

2-3 small cork or wooden balls (~1.5 cm diameter)

1 thin plastic conductor stick

1 long thin wooden stick (~45 cm long, 5 cm diameter), prepared with string

1 small light singing bowl

1 small hex wrench or similar size metallic object prepared with string

Resonating Instruments

* **Resonating instruments: Piano, thunder sheet and tam tam:** These instruments are used as resonators only and are not played by either musician but are placed on and around the performing area. * See stage set up*

- Bass Drum: Prepared with Transducer and microphones
- Thundersheet: Prepared with Transducer and microphones
- Piano set up on stage as a resonator. Prepared with transducers.

Vibrating Materials

Exact placement, intensity and frequencies sent to these objects needs to be calibrated

- **1 medium (~140 x 40) piece of light wood** (example: Spruce) prepared with 2 transducers underneath, pickup and microphones. The wood needs to be light enough to vibrate easily with the transducer.
- **Prepared Piezo Mallet:** Add piezo pickup to a hard xylophone percussion mallet

General Notes about tech and Set up:

- This piece involves a complex system of transducers used a vibrators and also resonators, which are then spatialized through the 8 channel system. A complete **Tech Rider and Cue List** are provided as separate documents.
- Piece should be performed using a click track
- All Instruments should be lightly amplified with their sound placed into the speaker closest to them.

Notes about Performing Techniques - General

Ad lib. Throughout the piece there are sections where performers can respond, react to the music performing the material within brackets [] **ad lib.** They should use their musical sensibility to carefully and attentively listen and respond.

Notes about Performing Techniques - Strings

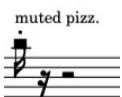
Bow positions: e.s.p (extreme sul pont), s.p., ord., s.t. and e.s.t is (extreme sul tast)

ord.....s.p. = move from one position to the other

{ ord. - s.p. } = **ad.lib.** motion back and forth between these positions



= *Rectangle Note* head indicates to mute string with hand, sometimes for a pizzicato and sometimes with col. legno.



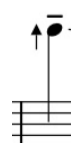
= *Muted pizz.* : Mute string with hand (or several fingers) close to the plucked position to damp pitch.



= indicates behind the bridge activity on the indicated string.

B.B. Pizz = Behind the Bridge Pizzicato

B.B. col. legno = tap the string behind the bridge with wood of bow



= Highest note possible. Imprecise



= Frog Tap - Tap the string with the screw of the bow



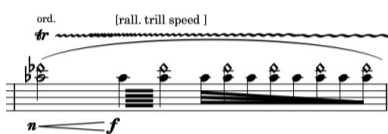
= Tap Body of your instrument with finger.



= Drum fingers indeterminate amount with a strum like gesture



= Artificial Harmonic trill. Trill using the harmonic pressure finger this is lightly touching the perfect fourth above the stopped note (not the stop note) so that the trill is between the pitch of the stopped note and 2 octaves higher. The rhythm of the trill will often be asked to accelerate and decelerate. This can be done in a quasi-precise way.



= Quarter tone trills - Trill starting on the quarter tone, and then trill a half a tone above that

= Col legno battuto + muted strings. Mute string with hand to dampen sound and use the wood of the bow to tap the string close to the hand. The rhythms fluctuate between:

precise



jeté (dropped bow with indeterminate amounts to create a light ricochet effect)



Clip rattle: Prepare the string with a small (preferably) wooden clip (clothes pin) on the string indicated near the bridge. To create the **rattle sound**, the performer should gently tap the clip (not the string) but the clip needs to **bounce on the adjacent string**. Performer can **mute / un-mute strings ad. lib.** to vary the timbre.



= Approximate position of the clips on the violin.



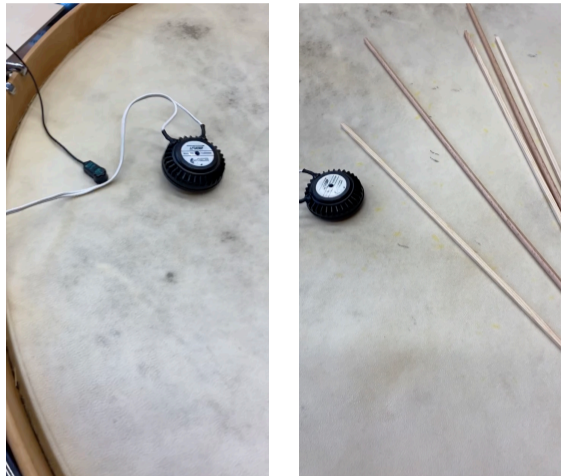
= Ideal type of clip to put on the string about 3 mm long.

Notes about Performing Techniques - Percussion and Object Performer

The object performer and percussion part are intertwined, as both performers will often be performing with each other, responding and reacting, improvising together. The percussion part needs to be performed by a percussionist, while the object player part could be performed by someone working with electronics and objects, or also another percussionist.

Each performer has both an individual performance station, plus a shared station around the vibrating Bass Drum and Wood piece. (* see set up)

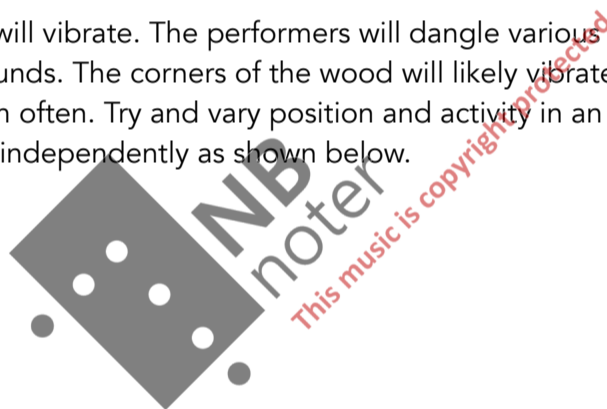
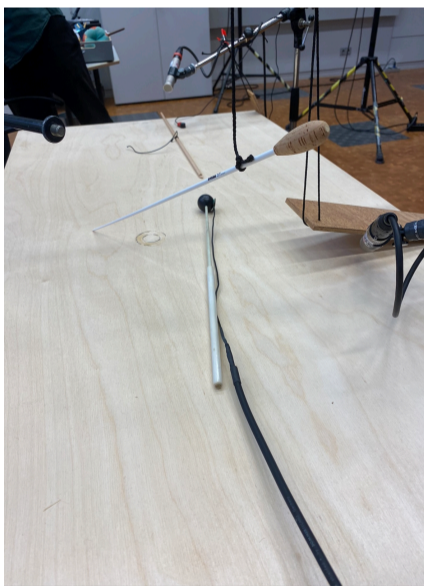
Bass Drum Rattling techniques



= Transducer on bass drum will create enough vibrations that sticks and balls will shake and rattle. They rattle the strongest closest to the transducer. The performer needs to keep all the materials close to the transducer to optimize the activity.

Vibrating Wood Dangling techniques

The medium sized piece of wood will vibrate. The performers will dangle various sticks on the wood so they just touch, to create erratic tapping sounds. The corners of the wood will likely vibrate more intensely, and the performers might want to use them often. Try and vary position and activity in an ad lib way. Then they should hang the materials so they vibrate independently as shown below.



Object Player Performing Techniques



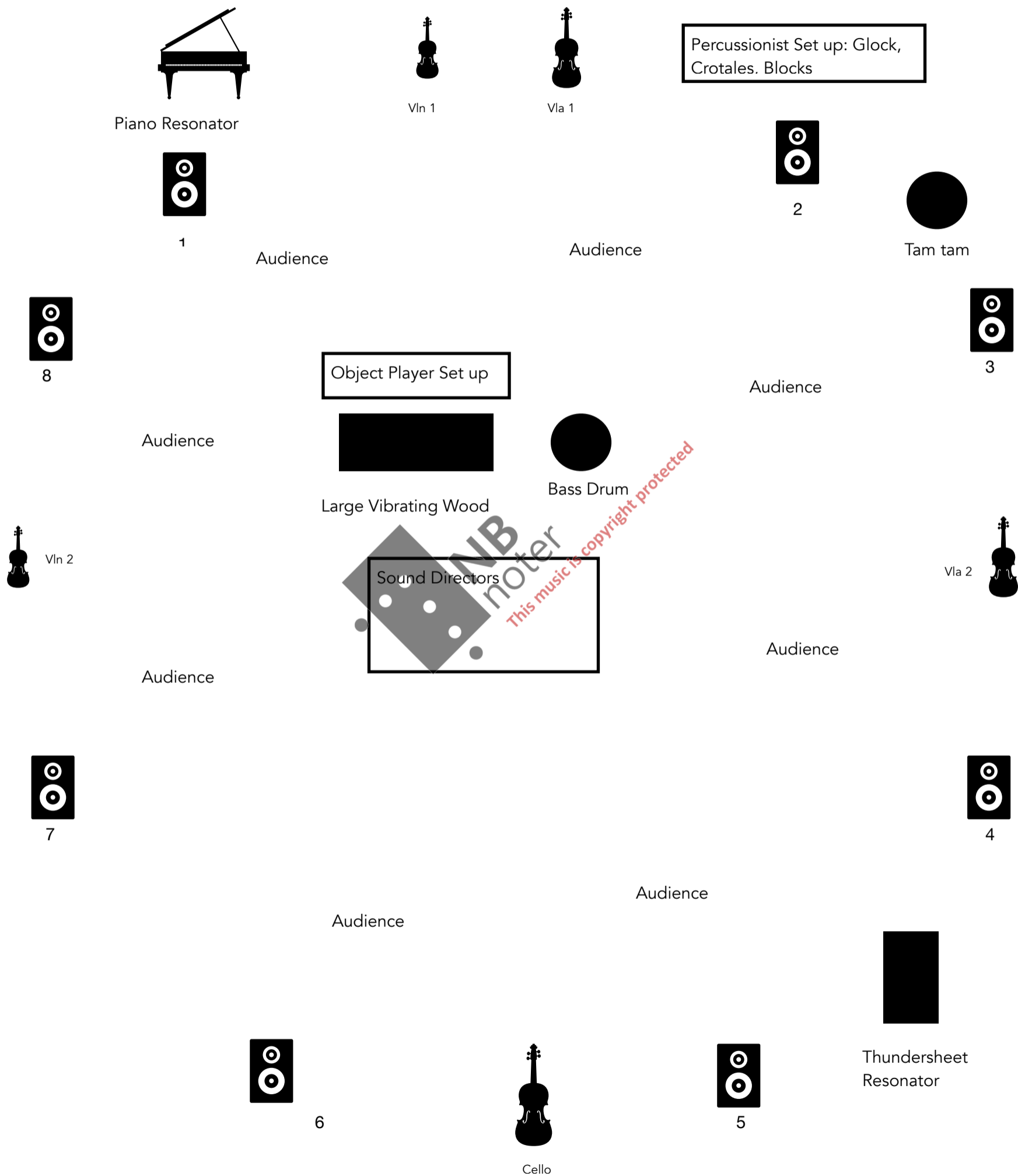
Foam balls on transducer: balls quietly rattle on transducer. Use cans over the rattling balls in up and down motion to filter the sound.

Link to online videos of demonstrations of ball/ can techniques.

<https://heather-frasch.squarespace.com/objectperformancetechniques>

Spatialization Set Up

Ensemble and 8 channel speaker playback should be placed around the audience so everything surrounds.



Entanglements

for Sinfonietta and live electronics
to Daniel and Elena

Heather Frasch

♩ = 60

TIME 4/4

Transducer

Foam Balls on Transducer

Let vibrate actively

fff

Bass Drum

Clave & Sticks on Bass Drum

Let Rattle actively *

(*Make sure sticks rattle by keeping them in a contained area close to the transducer on the bass drum)

fff

Violin 1

Sul III
Sul IV
ord.

fff

[ord. - s.p.f.d. - s.p.s.p.

Violin 2

Sul III
Sul IV
ord.

fff

s.p.----->

Viola 1

Sul II
Sul III
ord.

fff

Viola 2

Sul II
Sul III
ord.

fff

e.s.p.

Violoncello

Sul I
Sul II
ord.

fff

ord.----->

Electronics

4/4

00:00:00:00

CUE E 7 →

FULL Sound: mix texture so everything is at the same volume as much as possible

Bass Drum Transducer ON
Object Transducer ON
8 Channel Playback ON
All to 8 channels

This music is copyright protected

Entanglements

5

Time

Transducer

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord. - [ord. - s.p.] - s.p.

ord. - [ord. - s.p.] - [ord. - s.p.] - s.p.

ord. - s.p. - [ord. - s.p.] - [ord. - s.p.] - s.p.

ord. e.s.p. [ord. - s.p.] - [ord. - s.p.] - s.p.

ord. e.s.p. ord.

[ord. - s.p.] - [ord. - s.p.] - s.p.

Sul III
Sul II

Maintain Ad. lib transition

The musical score is arranged in a vertical staff system. From top to bottom, the parts are: Time (a simple line with vertical ticks), Transducer (a line with a series of horizontal arcs), B.D. (a line with a series of horizontal arcs), Vln 1 (violin 1 staff with notes and slurs), Vln 2 (violin 2 staff with notes and slurs), Vla 1 (viola 1 staff with notes and slurs), Vla 2 (viola 2 staff with notes and slurs), Vc. (violin 3 staff with notes and slurs), and Elect. (electronic part with a 'Maintain' box and an 'Ad. lib transition' box). Performance markings include 'ord.' (order), 's.p.' (sotto piano), and 'e.s.p.' (espressivo). A large watermark 'NB noter' is overlaid on the score, along with the text 'This music is copyright protected'. A time signature '5' is at the top left. A timecode '00:00:16:00' is at the bottom left.

9 0:32

Time

Transducer

B.D.

Vln 1
ord.-----[ord. - s.p.]-----s.p.

Vln 2
ord.-----[ord. - s.p.]-----s.p.

Vla 1
ord.-----[ord. - s.p.]-----s.p.

Vla 2
ord.-----[ord. - s.p.]-----s.p.

Vc.
ord.-----[ord. - s.p.]-----s.p.

Elect.

* approximate position

*** CUE E 7**
+ CUE F 2

00:00:32:00

Ad lib. Blend of materials and resonators
 Object Transducer to speakers & thundersheet.
 Bass Drum to speakers and thundersheet
 (Hold off piano)

Entanglements

13 1:00

Time

Transducer

Tin Can*

*slowly move can up & down over balls

+ Add more Sticks

B.D.

Vln 1

ord.-----[ord. - s.p.]-----[ord. - s.p.]

ff

Vln 2

ord.-----[ord. - s.p.]-----[ord. - s.p.]

ff

Vla 1

ord.-----[ord. - s.p.]-----[ord. - s.p.] [ord. - s.p.]-----[ord. - s.p.]-----s.p.

Vla 2

ord.-----[ord. - s.p.]-----[ord. - s.p.]-----[ord. - s.p.]-----s.p.

Vc.

ord.-----[ord. - s.p.]-----[ord. - s.p.]-----[ord. - s.p.]-----s.p.

Elect.

Continue *ad. lib.*

00:00:48:00

17

Time

Transducer

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

ord. s.p. ord. s.p. ord.

ord. -s.p. ord. -s.p. -s.p.

ord. -s.p. -s.p.

ord. -s.p. -s.p.

00:01:04:00

21 1:32

Time

Transducer

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

The score is arranged in a vertical stack of staves. From top to bottom: a Time track with a horizontal line and vertical tick marks; a Transducer track with a wavy line; a B.D. track with a series of horizontal lines and curved arcs; Vln 1 and Vln 2 tracks with treble clefs and rhythmic notation; Vla 1 and Vla 2 tracks with bass clefs and rhythmic notation; Vc. track with a bass clef and rhythmic notation; and an Elect. track with a horizontal line and a box containing the text 'Continue ad. lib.' with an arrow pointing right. A large watermark 'NB noter' is centered over the Vln 2 and Vla 1 staves, with the text 'This music is copyright protected' written diagonally across it. The page number '6' is in the top left, and the title 'Entanglements' is at the top center. The number '21' is at the top left of the score, and a time marker '1:32' is in a box at the top right. The time track at the bottom has a timestamp '00:01:20:00' at the beginning.

25

Time

Transducer

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Slowly Add cork balls

Sul IV
Sul III

[ord. - s.p.]

Sul IV
Sul III

ord.-----[ord. - s.p.]-----[ord. - s.p.]-----[ord. - s.p.]-----[ord. - s.p.]-----s.p.

Sul III
Sul IV

[ord. - s.p.]-----[ord. - s.p.]-----s.p.

Continue *ad. lib.*

29 2:00

Time

Transducer

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Ad lib. short muting (2-3 secs) moments by placing palm on transducer

ord. - - - - - [ord. - s.p.] - - - - - s.p.

ord. - - - - - [ord. - s.p.] - - - - - s.p.

ord. - - - - - [ord. - s.p.] - - - - - [ord. - s.p.]

Continue *Ad lib.* Blend of resonators (Hold off piano)

33

Time

Transducer

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Sul IV
Sul III
ord.

Sul IV
Sul III
ord.

ord. - [ord. - s.p.] - [ord. - s.p.]

ord. - [ord. - s.p.] - [ord. - s.p.]

ord. s.p. ord.

Continue *ad. lib.*

00:02:08:00

37 2:32

Time

STOP Can activity
Keep Balls in Motion
Prepare to Move to Bass Drum

Transducer

Wait for Object Player to take over activity
Then move to Glockenspiel

B.D.

Vln 1 Sul III
Sul IV
rfz

Vln 2 Sul III
Sul IV
ord.
rfz *rffz*

Vla 1 ord.
rfz *rffz*

Vla 2 *rfz* *rfz*

Vc. *rfz* *rfz* *rffz*

Elect. Continue *ad. lib.*

41

Time

Transducer

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

rffz

rffz

rffz

rffz

ff

rffz

rffz

00:02:40:00

A
3:00

45

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

No Muting
Keep Active

s.p.

fff

ff

fff

Continue *ad. lib.*

49

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

fff

fff

00:03:12:00

53 3:32

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord. *fff* ord. s.p.

Sul III
Sul IV

ord. *ffp* *fff* *ffp* *fff* *ffp* *ffp*

Sul IV
Sul III

ord. *fff*

Continue *ad. lib.*

58

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord.

s.p.

ffp

fff

Ad lib. Transition
Move back and forth between cues

62

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Remove long sticks
Only Claves remain rattling.

ord. - s.p. ord. - s.p. ord. - s.p. ord. - s.p.

ffp *ffff* *ffp* *ffff* *ffp* *ffff* *ffp* *ffff*

Sul II
Sul III

ffp *ffff* *ffp* *ffff* *ffp* *ffff*

ord. - [ord. - s.p.] - s.p.

Continue *ad. lib.*

64

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

Add Foam Balls*

(* Keep everything in motion by using hands to keep it close to the transducer)

Sul III
Sul II

ord.

s.p.

ffp *ffff* *ffp* *ffff*

Sul II
Sul III

ord.

ord.

ord. - s.p. - [ord. - s.p.]

ffp *ffff* *ffp*

ffp

66

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

fff

s.p.

fff

ord. - s.p.

ffp < *fff*

Sul III
Sul II

[ord. - s.p.] - s.p.

00:04:20:00

72

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

00:04:44:00

75 5:00

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

78

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord.

s.p.

fff

n

fff

fff

Continue *ad. lib.*

82 5:32

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord. s.p. ord. s.p. ord.

fff

Continue *ad. lib.*

85

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

00:05:36:00

B
6:00

88

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Occasionally *Ad lib.* short muting (2-3 secs) by placing palm on transducer

Continue *ad. lib.*

92

Time

Transducer

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Fade out transducer

fff

fff

fff

Continue *ad. lib.*

(Bass Drum continues)

Fade out Object Transducer

00:06:04:00

The image displays a musical score for a piece titled "Entanglements" on page 28. The score is arranged in a vertical stack of staves. From top to bottom, the staves are: Time, Transducer, B.D. (Bass Drum), Vln 1 (Violin 1), Vln 2 (Violin 2), Vla 1 (Viola 1), Vla 2 (Viola 2), Vc. (Violoncello), and Elect. (Electronics). The Time staff shows a series of vertical tick marks. The Transducer staff features a dashed line with a peak and a box labeled "Fade out transducer". The B.D. staff has a solid line with a peak. The Vln 1 and Vln 2 staves include musical notation with accents and a dynamic marking of *fff*. The Vla 2 staff also has musical notation and a *fff* dynamic marking. The Elect. staff contains a box labeled "Continue *ad. lib.*" with an arrow pointing right, and another box labeled "Fade out Object Transducer" with an arrow pointing right. A box labeled "(Bass Drum continues)" with an arrow pointing right is positioned above the Elect. staff. A large watermark for "NB noter" is overlaid on the center of the score, with the text "This music is copyright protected" written in red below it. The timecode "00:06:04:00" is located at the bottom left of the page.

96

Time

Transducer

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

fff

n

ord. ---s.p.

CUE E 2

00:06:20:00

n

**Bass Drum & Playback
to all Speakers
Piezo to Piano**

100

Time

Wood 1

B.D.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Remove Clave
Only Balls remain

Return to B.D.

ord.

Maintain

102

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Wait for percussionist to come back to Bass Drum.
Then pick up piezo stick mallet

B.D.

s.p. ord. s.p.

tr

ffp

fff

p

ord. s.p. ord.

tr

ffp molto

fff

p

ffp molto

ffp

fff

p

ffp

ffp

fff

p

ffp

Maintain

00:06:44:00

106 7:00

Time

Wood

Piezo Stick Mallet

Ad lib. PIEZO STICK activity
Play with on / off durations
Feel free to take long rests

Wood 1

$f \pm$

Ad lib. phrases, muting transducer
or removing balls.
Interact with Object Player

B.D.

Vln 1

ffp *fff* *mf* *ffp* *fff*

ord. *tr*

Vln 2

fff *ffp* *molto* *mf* *ffp*

s.p. *tr* s.p. *tr* ord.

Vla 1

fff *mf* *ffp* *fff* *mf* *ffp*

Vla 2

fff *mf* *ffp* *fff* *mp*

Vc.

fff *mf* *ffp* *fff* *mf* *ffp*

Elect.

Maintain

Ad lib. transition
(freely move back and forth among materials
and resonators)

110 7:30

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

CUE E 3

00:07:16:00 **Piezo to Thundersheet**
-to Speakers
Bass Drum to Speakers 1, 2, 5, 6

114 7:32

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect. maintain

00:07:32:00

This music is copyright protected

C

8:00

118

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

maintain

CUE E 2

Ad lib. Blend of materials
no thundersheet

Continue to *Ad lib.* activity
Interact with Percussionist

Ad lib. activity with balls (On/ off)
Respond to Object Player

00:07:48:00

Bass Drum to Speakers
Piezo Stick to Piano

122

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

00:08:04:00

Continue *Ad lib.*

CUE E 2 and C2

Bass Drum & Piezo Stick to Piano and Speakers
Wood Transducers ON

126 8:32

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect. Ad. lib. Blend of materials

130

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *Ad. lib.*

Ad. lib. Transition

00:08:36:00

134 9:00

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Ad. lib. Transition

CUE E 4 and C 1

Bass Drum & Piezo Stick to Piano

00:08:52:00

138

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

142 9:32

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Ad. lib. Transition

CUE E 2 and C 2

Bass Drum & Piezo Stick to Piano and All speakers

00:09:24:00

146

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect. Maintain

150

10:00

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

00:09:56:00

The image shows a page of a musical score for 'Entanglements'. It features nine staves: Time, Wood 1, B.D., Vln 1, Vln 2, Vla 1, Vla 2, Vc., and Elect. The Time staff has a box labeled '10:00' and a bar line at the end. The Wood 1 staff has a thick black line with an arrow pointing right. The B.D. staff has four notes with a slur over them. The Vln 1, Vln 2, Vla 1, and Vla 2 staves each have a single note. The Vc. staff has a single note. The Elect. staff has a box labeled 'Maintain' and a thick black line with an arrow pointing right. A watermark 'NB noter' and 'This music is copyright protected' is visible in the center. The page number '44' is in the top left, and the title 'Entanglements' is at the top center. The number '150' is at the top left of the score area. The time '00:09:56:00' is at the bottom left.

154

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

00:10:12:00

158 10:32

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

CUE E 4

00:10:28:00 **Bass Drum & Piezo Stick to Piano Only**

162

Time

Wood 1

B.D.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Slow Down Activity

Remove Balls and transducer fades out

Maintain

(Piezo Stick to Piano Continues Playback Continues)

FADE out Bass Drum Transducer

n

The musical score is arranged in a vertical stack of staves. The 'Time' staff at the top shows a series of vertical tick marks. The 'Wood 1' staff features a thick horizontal line with an arrow pointing right, and a box labeled 'Slow Down Activity' above it. The 'B.D.' staff has a curved line with three circles, a box labeled 'Remove Balls and transducer fades out' above it, and a wedge-shaped line with a note 'n' below it. The 'Elect.' staff at the bottom has a box labeled 'Maintain' above it and a box labeled 'FADE out Bass Drum Transducer' above it, with a wedge-shaped line and note 'n' below it. A large watermark 'NB noter' and the text 'This music is copyright protected' are overlaid diagonally across the middle of the score.

166 11:00

Time

Wood 1

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

00:11:00:00

The image displays a musical score for a piece titled "Entanglements". The score is organized into several staves, each representing a different instrument or section. From top to bottom, the staves are: Time, Wood 1, T. Bl. 1, T. Bl. 2, T. Bl. 3, Vln 1, Vln 2, Vla 1, Vla 2, Vc., and Elect. The Time staff features a box labeled "166 11:00" and a series of vertical tick marks. The Wood 1 staff contains a solid black line with an arrow pointing to the right. The T. Bl. 1-3 staves have vertical tick marks. The Vln 1 and Vln 2 staves are marked with treble clefs and have vertical tick marks. The Vla 1 and Vla 2 staves are marked with alto clefs and have vertical tick marks. The Vc. staff is marked with a treble clef and has vertical tick marks. The Elect. staff has a box labeled "Maintain" and a solid black line with an arrow pointing to the right. A watermark for "NB noter" is visible in the center, with the text "This music is copyright protected" written in red below it. At the bottom left, the timecode "00:11:00:00" is displayed.

170

Time

Wood 1

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

This page contains a musical score for measures 170 through 173. The instruments listed are Time, Wood 1, T. Bl. 1, T. Bl. 2, T. Bl. 3, Vln 1, Vln 2, Vla 1, Vla 2, Vc., and Elect. The Time and Wood 1 parts consist of a single bar line with a repeat sign. The T. Bl. 1, 2, and 3 parts have a single bar line with a repeat sign. The Vln 1 part has a single bar line with a repeat sign. The Vln 2 part has a single bar line with a repeat sign, followed by a measure with a pizzicato marking and a dynamic marking of mf. The Vla 1 part has a single bar line with a repeat sign. The Vla 2 part has a single bar line with a repeat sign, followed by a measure with a pizzicato marking and a dynamic marking of mf. The Vc. part has a single bar line with a repeat sign. The Elect. part has a single bar line with a repeat sign, followed by a measure with a 'Maintain' instruction and a long arrow pointing to the right.

D

174 11:32

Time

Wood 1

Blocks

(*Hit blocks in center.
Blend with surrounding soundscape)

T. Bl. 1
T. Bl. 2
T. Bl. 3

mf

ord.
col legno battuto

s.p.

Vln 1

mf

Vln 2

Vla 1

mf

Vla 2

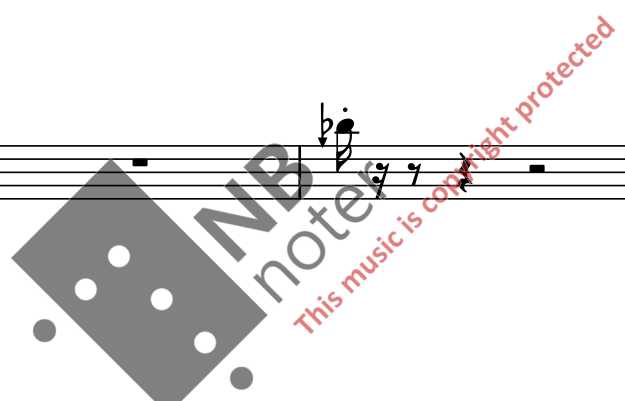
pizz.

mf

Vc.

Elect.

Maintain



178

Time

Wood 1

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

(col legno battuto) — s.t. — ord. pizz.

col legno battuto arco
mf

s.p.
col legno battuto
arco

Maintain

181 12:00

Time

Wood 1

Fade Out Activity

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

s.p.
col legno battuto

s.t.

Elect.

Maintain

Fade out Wood Transducer and Piezo Stick

00:12:00:00

[Playback Continues]

184

Time

Wood 1

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord. pizz.

ord. col legno battuto pizz.

s.t. col legno battuto arco

s.p. col legno battuto arco

pizz.

pizz.

CUE A

00:12:12:00

n Playback to All Speakers

187 12:32

Time

Wood 1

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

s.p. arco
fp

pizz.
mf

pizz.

Sul I
s.p. arco
col legno jeté
s.t.----s.p.

Maintain

190

Time

Wood 1

Glock.

Glock.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Glock.

8va

Sul I arco

s.p.

s.p.

mf

mf *p*

mp

mp

mp

s.p. arco

e.s.p.

(col legno jeté)

ord.----s.p.

e.s.t.--s.t.

s.t.--ord.

Sul II

Sul III

Maintain

192

Time

Wood 1

Glock. (8)

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord.

pp

mp

pp

ord.

mp

p

mp

pp

ord. (col legno jete) --- s.p.

e.s.p. --- s.p.

Sul I

ord. arco

Sul IV

Maintain

194

Time

Wood 1

Glock. (8)

Vln 1 *mp* *ppp*

Vln 2

Vla 1

Vla 2 *p*

Vc. *pp* *mp* *ppp* *mp* *ppp*

Elect. **Maintain**

s.p. ord.

Sul III e.s.p.

196 13:00

Time

Wood 1

Glock. (8) 15^{ma}

Vln 1 Sul I s.p. p

Vln 2

Vla 1

Vla 2 ppp

Vc. e.s.p. -s.p. p ppp p ppp

Elect. Maintain + Soundfile to Tamtam to speakers

00:13:00:00

198

Time

Wood 1

Glock. (15)

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

ppp

ppp

ppp

Sul IV
s.p.

p

s.p. — ord.

p *ppp* *p* *ppp*

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200 **E**

Time

Wood 1

Glock. (15)

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

e.s.p.

p *ppp*

Sul II *e.s.p. arco*

p

Sul II *s.p.*

ppp *p*

Sul II *s.p.*

Sul III *s.p.* *ord.*

p *ppp*

Sul IV *ord.* *ord.* *s.p.*

p > ppp *p > ppp*

00:13:16:00

203 13:32

Time

Wood 1

Glock. (15) *ppp*

Vln 1 *p* *ppp* *pp* *8va* e.s.p. -s.p. *8va* s.p.

Vln 2 *pppp* *p* *ppp* *pp* *Sul I* *8va* e.s.p. -s.p. *8va* s.p.

Vla 1 *Sul III* s.p. arco *p* *ppp* *pp* *pppp* *Sul I* e.s.p.

Vla 2 *e.s.p.* *ppp*

Vc. s.p. s.p. -e.s.p. *p > ppp* *p > ppp*

Elect. Maintain

207

Time

Wood 1

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

pppp

pp

pppp

pp

n

p

Sul I

Sul II

8va

e.s.p.

-ord.

-s.p.

This music is copyright protected

211 14:00

Time

Wood 1

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

ppp p

8va s.p. ord.

8va e.s.p.

s.p. n p

e.s.p. s.p. n

Sul II s.p. ord. pp n

00:14:00:00

215

Time

Wood 1

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Crot.
BOW

mp

(8) s.p. -ord-

n *p*

(8) s.p. *8va* s.p. -ord-

n *p*

Sul III
e.s.p.

p *n* *n* ord.

e.s.p. *p* *n* ord. *n*

Maintain

223 **F** 15:00

Time

Wood 1

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

(8) p. ord. s.p.

(8) ord. [ord. - s.p.] s.p.

[ord. - s.p.] [ord. - s.p.] s.p.

s.p. ord.

n p n

p

n p

n p n

n n

227

Time

Wood 1

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

231 15:32

Time

Wood 1

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

00:15:20:00

235

Time

Wood 1

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain
Tamtam sound file Ends

>n *n* *ppp*

n *ppp* *n* *n* *ppp* *n*

ppp *n*

n *ppp* *n*

n *ppp* *n* *n* *ppp*

>n *n* *ppp* *n*

239 16:00

Time

Wood 1

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain

The musical score consists of eight staves. The 'Time' staff shows a timeline with a box labeled '16:00'. The 'Wood 1' staff is empty. The 'Crot.' staff has a melodic line with slurs. The 'Vln 1' staff has a melodic line with dynamics *n* < *ppp* > *n* and *n* < *pppp* > *n*. The 'Vln 2' staff has a melodic line with dynamics *n* and *ppp*. The 'Vla 1' staff has a melodic line with dynamics *n*, *ppp*, and *n*. The 'Vla 2' staff has a melodic line with dynamics > *n*, *n* < *ppp* > *n*, and *n* < *ppp* > *n*. The 'Vc.' staff has a melodic line with dynamics *n*, *ppp*, and *n*. The 'Elect.' staff has a 'Maintain' box and an arrow pointing right. A watermark 'MB noter' and 'This music is copyright protected' is visible across the middle staves.

243

Time

Wood 1

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

[Playback Solo]
+ Playback to Tamtam to Speakers

G

16:32

247

Time

Wood 1

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Blocks

p

pizz.

p

pizz.

p

Maintain

251

Time

Wood 1

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

pizz.

p

Frog tap

s.p.

+

b

Sul I

ord.
muted pizz.

p

Sul II

ord.
muted pizz.

p

Maintain

254

17:00

Time

Wood 1

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

LIGHT STICK
ad. lib. sparse phrases*

(* *ad lib.* phrases by dangling a long light stick onto the vibrating piece of wood search for intense vibrating points, like edges, near corners or near transducers)

f ±

ord. muted pizz. s.p. ord.

mp

muted pizz.

pizz.

Frog tap
s.p. +

pizz.

ord. muted pizz. s.p. ord.

mp

s.p. muted pizz. ord. e.s.p.

Maintain

Carefully FADE IN Wood Transducers

CUE B 1

Wood mics to Piano

00:16:52:00

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259

Time

Wood 1

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

(muted pizz.)

ord.

Sul I

e.s.p.
col legno battuto
arco

pp

e.s.p.
col legno jeté
arco

e.s.p. - - s.p.

col legno jeté
e.s.p.
arco

p

Maintain

Frog tap
e.s.p.

b⁺

5

00:17:12:00

264 17:32

Time

Object Player and Percussionist
Interact and respond to each other

Wood 1

Long Stick
ad. lib. sparse phrases*

Wood 2

f ± (* *ad lib.* phrases by dangling a long light stick onto the vibrating piece of wood search for intense vibrating points, like edges, near corners or near transducers. Intearct with Object Player)

Vln 1

Ad lib. duration & placement
Respond to Object Player 1

Vln 2

Ad lib. duration
Try and place immediately after Vla. 1

Vla 1

Ad lib. duration & placement
Respond to Object Player 2

Vla 2

Ad lib. duration
Try and place immediately after Vln. 1

Vc.

Ad lib. duration & placement
Respond to electronics

Elect.

The image shows a musical score for 'Entanglements' on page 78. The score is organized into a system with staves for Time, Wood 1, Wood 2, Vln 1, Vln 2, Vla 1, Vla 2, Vc., and Elect. The Time staff at the top left is marked with '264' and '17:32'. The Wood 1 staff has a box containing 'Long Stick' and '*ad. lib.* sparse phrases*'. The Wood 2 staff has a box with '**f** ±' and a detailed instruction: '(* *ad lib.* phrases by dangling a long light stick onto the vibrating piece of wood search for intense vibrating points, like edges, near corners or near transducers. Intearct with Object Player)'. The Vln 1 staff has a box: '*Ad lib.* duration & placement Respond to Object Player 1'. The Vln 2 staff has a box: '*Ad lib.* duration Try and place immediately after Vla. 1'. The Vla 1 staff has a box: '*Ad lib.* duration & placement Respond to Object Player 2'. The Vla 2 staff has a box: '*Ad lib.* duration Try and place immediately after Vln. 1'. The Vc. staff has a box: '*Ad lib.* duration & placement Respond to electronics'. A large watermark 'NB noter' is centered over the score, with the text 'This music is copyright protected' written diagonally across it. The bottom left corner of the page has the timecode '00:17:32:00'.

268 18:00

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Attach Stick & leave
dangling and vibrating *

(* Find a good position for the stick.
Attach with clamp on mic stand.
Leave in motion)

[Mute String with Hand]
col legno jeté

[Mute String with Hand]
arco
Sul III

Ad lib. Transition

Ad lib. Piano
and speaker blend

CUE B 2

Wood Mics to
Piano and Speakers

00:17:48:00

The image shows a musical score for a piece titled "Entanglements". It consists of nine staves: Time, Wood 1, Wood 2, Vln 1, Vln 2, Vla 1, Vla 2, Vc., and Elect. The score is marked with measure numbers (268) and a time signature (18:00). Various performance instructions are provided, such as "Attach Stick & leave dangling and vibrating *", "(* Find a good position for the stick. Attach with clamp on mic stand. Leave in motion)", "[Mute String with Hand] col legno jeté", and "[Mute String with Hand] arco Sul III". There are also cues for "Ad lib. Transition", "Ad lib. Piano and speaker blend", and "CUE B 2". A large watermark "NB noter This music is copyright protected" is overlaid on the score. The time signature "00:17:48:00" is located at the bottom left.

272

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Long Stick
ad. lib. sparse phrases

[continue *ad lib.* including bow placement]

[continue *ad lib.* including bow placement]

Continue *Ad lib.*

276

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Attack stick & leave vibrating *

(* Find a good position for the stick.
Attach with clamp on mic stand.
Leave in motion)

Continue *Ad lib.*

278 18:32

Time

Wood 1

Wood 2

[Mute string with hand]

Sul II
e.s.p.
col legno battuto

3

e.s.p. - - - - - s.p.
col legno jeté

e.s.p. - - - - - s.p.

Sul III

s.p.
col legno battuto

Vln 1
mp

Sul II
e.s.p.
col legno battuto

3

mp

Vln 2

e.s.p.
col legno battuto

3

Vla 1
mp

[Mute string with hand]

Sul III
e.s.p.
col legno battuto

3

col legno jeté

Sul II

Vla 2
mp

s.p.
col legno battuto

Vc.

Ad lib. Piano and speaker blend

Elect.

282

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Pencil on string
ad. lib. sparse phrases

Tap Body

f

e.s.t.-----s.t.
col legno jeté

s.p.-----e.s.p.

Sul II
ord. 3

(col legno battuto) s.p.-----s.t.

3

Sul II

s.p.-----s.t.
col legno jeté

ord.-----s.p.

Sul I

(col legno battuto) e.s.t.

ord.-----s.p.
col legno jeté

s.p.-----s.t.

e.s.p.
col legno battuto

Sul III

(col legno battuto) e.s.p.-----s.p.

e.s.p.-----s.p.

s.t.
col legno battuto

3

(col legno battuto) s.p.-----s.t.

col legno jeté

Sul II

Continue *ad. lib.*

H

286 19:00

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Hang Stick & leave it vibrating

Tap Body

Sul II

Sul III

Continue *ad. lib.*

The score is written for a string quartet and an electric guitar. The woodwinds (Wood 1 and Wood 2) play a sustained note with a 'Hang Stick & leave it vibrating' instruction. The violins (Vln 1 and Vln 2) play a rhythmic pattern with 'Tap Body' instructions. The violas (Vla 1 and Vla 2) play a similar pattern with 'Tap Body' and 'Sul II' instructions. The cello (Vc.) plays a pattern with 'Tap Body' and 'Sul II' instructions. The electric guitar (Elect.) is instructed to 'Continue ad. lib.'. The score includes various performance markings such as 'f', 's.t.', 'ord.', 's.p.', 'e.s.p.', and 'col legno jeté/battuto'. A large watermark 'NB noter' is visible across the center of the page.

288

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Sul III
col legno jeté

Sul II

Tap Body

mf

(col legno battuto)

ord.-s.p.

e.s.t.

3

ord.-s.p.

(col legno battuto)

e.s.t.

Sul II
s.t.-ord.

col legno jeté

Sul III
s.t.-ord.

Sul II
s.t.-ord.

col legno battuto

ord.-s.p.

e.s.p.-s.p.

e.s.p.-s.p.

e.s.p.-col legno battuto

3

s.t.-ord.

(col legno jeté)

e.s.p.-col legno battuto

Sul III

3

Continue *ad. lib.*

290

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord.-----s.p. s.t.-----ord. e.s.t.-----s.t.

Sul I col legno battuto

s.t.-----ord. col legno jeté

e.s.t.-----s.t.

Sul II

e.s.p.-----s.p. col legno battuto

3

Prepare Strings I and II with clips

(col legno battuto)-----s.p.

3

Tap Body Sul III

s.t.-----s.p. s.p.-----s.t. s.p.-----s.t.

col legno battuto

3

col legno jeté

Sul II

-----e.s.t. e.s.t.-----s.t. s.t.-----ord. e.s.t.-----s.t.

(col legno battuto) 3

col legno jeté

Sul II

Sul III

Continue *ad. lib.*

292

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

s.p. col legno battuto 3 s.t. -ord. Tap Body f mf Sul III s.t. -ord. col legno jeté

s.p. col legno battuto 3 s.t. s.p. -ord. col legno jeté Tap Body mf

s.t. -ord. (col legno jeté) -s.p. s.t. -ord. -s.p. s.p. -ord. col legno battuto 3 -s.t.

Sul II Sul III

Continue *ad. lib.*

294 19:32

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Piece of Wood
ad. lib. sparse phrases

Sul II
s.t.-----ord.
(col legno jeté)

Tap Body

Clip Rattle

Sul III
e.s.t.
col legno battuto

s.t.-----s.p.s.t.-----s.p.

col legno jeté

Clip Rattle

Sul III
e.s.p.
col legno battuto

s.p.-----s.t.

col legno jeté

Sul III
col legno jeté

Sul II

Tap Body

ord.
arco

n

mf

Continue *ad. lib.*

The score is for a piece titled 'Entanglements' on page 90. It begins at measure 294, with a time signature of 19:32. The instruments are Time, Wood 1, Wood 2, Vln 1, Vln 2, Vla 1, Vla 2, Vc., and Elect. The score includes various performance techniques such as Sul II, Tap Body, Clip Rattle, and Sul III. Dynamics range from *f* to *mf*. A 'Piece of Wood' section is marked *ad. lib.* with sparse phrases. The Vc. part starts with *ord. arco* and includes a note marked *n*. The Elect. part continues *ad. lib.* throughout the section.

296

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*
(Tamtam soundfile ends)

00:19:40:00

298

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Hang Wood & leave vibrating

Clip Rattle

Ad. lib. transition

-----s.p. (col legno jeté) s.t.-----s.p. s.t.-----ord. s.t.-----s.p. s.t.-----s.p. s.t.-----s.p.

Sul II Sul III Sul II Sul III Sul II Sul III

s.p.-----s.t. col legno jeté s.p.-----s.t. s.p.-----s.t. s.p.-----s.t. s.t.-----s.p. s.p.-----

ord.-----s.p.

00:19:48:00

This music is copyright protected

300 20:00

Time

Wood 1 Hang Stick & leave vibrating

Wood 2

Vln 1 Sul II Tap Body
 (col legno jeté) Sul II
f col legno jeté
f ± Ad lib. material. Mimic rhythms of the wood

Vln 2 Sul III
 s.t.-----s.p. s.t.-----s.p. s.t.-----s.p.
 col legno jeté Sul III Tap Body
f Ad lib. order & placement of material. Mimic rhythms of the wood
f ± Clip Rattle Sul III Clip Rattle
 s.p.-----s.t. col legno jeté

Vla 1 Ad lib. order & placement of material. Mimic rhythms of the wood
 Clip Rattle Sul III
 s.t.-----s.p. col legno jeté Clip Rattle
f ±

Vla 2 Ad lib. material. Mimic rhythms of the wood
 s.t.-----s.t. s.p.-----ord. s.p.-----s.t. Sul III Tap Body
 (col legno jeté) Sul III
f s.t.-----s.p. col legno jeté
f ± Tap Body

Vc. [ord. s.p.] - - [ord. s.p.] - - s.p.
 e.s.p. 3

Elect. ad lib. activity in speakers
 CUE B 3 Wood Mics to Speakers

NB noter
This music is copyright protected

00:19:56:00

302

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

[ad.lib. bow position between s.p. and ord.]
ord.-----[ord. - s.p.]-----s.p.

Continue *ad. lib.*

00:20:04:00

305

Time

Wood 1

Wood 2

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

00:20:16:00

ord.-----[ord. - s.p.]-----s.p.

f

Continue *ad. lib.*

Ad. lib. mix in speakers

CUE D 3

Wood mics to Ring Modulation to All speakers

308 20:32

Time

Singing Bowl:
ad lib. lightly play on vibrating wood
then carefully place in center

Wood 1

Wood 2

Wood Blocks

T. Bl. 1
T. Bl. 2
T. Bl. 3

f

Vln 1

Vln 2

Vla 1

Vla 2

Sul III
Sul IV
ord. ----- [ord. - s.p.] ----- [ord. - s.p.]

Vc.

Continue *ad lib.*

Elect.

311

Time

Wood 1

Wood 2

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

00:20:40:00

314

Time

Wood 1

Wood 2

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue ad. lib.

316 21:00

Time

Wood 1

Wood 2

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

B.B. pizz.
Sul II

Sul III

Sul IV

$f \pm$

s.t.-----s.p.
col legno jeté

Clip Rattle

Ad lib. order & placement of material.
Continue to mimic rhythms of the wood

Clip Rattle

Sul III

Sul IV

B.B. pizz.

Sul II

Sul III

Clip Rattle

s.t.-----s.p.
col legno jeté

B.B. pizz.

Sul II

Sul III

muted pizz.

Sul II

Sul III

Sul II

s.t.-----s.p.
col legno jeté

Sul I

muted pizz.

Ad lib. order & placement of material.
Continue to mimic rhythms of the wood

[ord. - s.p.]-----[ord. - s.p.]-----s.p.

00:21:00:00

318

Time

Wood 1

Wood 2

Cym.

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Metallic Stick: *ad lib* activity
rattle on edge of bowl. Then hang & leave vibrating.

f

f

Ad lib. order & placement of material.
Continue to mimic rhythms of the wood

ord.-----[ord. - s.p.]-----[ord. - s.p.]

Continue *ad lib.*

321

Time

Wood 1

Wood 2

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Remove Clip on E string

STOP

ord
arco

n *p* *n*

Sul II
Sul III
e.s.p.

Sul I
Sul II

Continue *ad. lib.*

323 21:32

Time

Wood 1

Wood 2

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

p *n* *f*

Rattle

B.B. Col legno Jeté

B.B. pizz.

f \pm

Sul III

Sul IV

Sul II

Ad lib. order & placement of material

STOP

Remove Clip from A string

STOP

ord. arco

n \leftarrow *p* \rightarrow *n*

f

Sul I

Sul II

e.s.p.

Continue *ad. lib.*

326

Time

Wood 1

Wood 2

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord.

STOP

ord. arco

Rattle

Sul I

B.B. pizz.

Sul III

Sul IV

n

p

f

muted pizz.

Sul I

Sul II

Sul I

B.B. pizz.

muted pizz.

B.B. pizz.

Sul III

Sul I

Sul II

Sul I

Sul IV

Sul I

3

Continue *ad. lib.*

328 I

Time

Wood 1

Wood 2

Cym.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Ad lib. bowed cymbal activity
Responded to soundscape.

ff

B.B. pizz. ———

Sul IV Sul III Sul IV Sul II

ord. arco

f *n* *mf* *n*

ord. *tr.* *s.p.*

STOP

n *mf* *n*

Ad lib. order & placement of material

(B.B. pizz.) ——— muted pizz. B.B. pizz. ——— B.B. pizz. ——— muted pizz. ——— B.B. pizz.

Sul IV Sul II Sul IV Sul II Sul IV

3

5

Continue *ad lib.*

330 22:00

Time

Wood 1

Wood 2

Cym.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

B.B. Col legno

ord. arco

Sul II

Sul IV

f

n

mf

f

Rattle

Sul III

B.B. Col legno Jeté

B.B. Col legno

Sul II

Sul IV

f ±

Ad lib. order & placement of material

ord. arco

fr

-s.p.

n

mf

n

Continue *ad. lib.*

332

Time

Wood 1

Wood 2

Cym.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord. arco

n \rightarrow *f* \leftarrow *n*

Sul III

B.B. Col legno Jeté

f

STOP

col legno battuto

s.p. ----- s.t.

col legno jeté

f ±

Sul I

Ad lib. order & placement of material

ord. *tr* ----- s.p.

Sul I

Sul II

e.s.p.

n \rightarrow *f* \leftarrow *n* \rightarrow *f*

Ad lib. transition

334

Time

Wood 1

Wood 2

Cym.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

ord. arco

Sul III

B.B. Col legno

ord. arco

n *f* *n*

f

Sul IV

n *f*

e.s.p. arco

[*rall. trill speed]

* s.p.

Remove Clip from D string

n *f* *n*

n *f*

Ad lib. Mix and blend of sounds through speakers

CUE D 3 and C 3

Wood Mics to Ring Mod to Speakers + Piezo stick to Thundersheet to Speakers

Piezo Stick: *ad lib* activity on corner of vibrating wood

337 22:32

Time

Wood 1

Wood 2

Cym.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

B.B. pizz.
Sul I Sul III Sul II
 $f \pm$

ord. [* rall. trill speed]
*tr
 n f

340

Time

Wood 1

Wood 2

Cym.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

to Crotales

STOP

ord. *tr* [rall. trill speed]

Sul I
Sul II
e.s.p.

* accel. trill speed

Continue *ad. lib.*

n *f*

n *f*

342

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

(Aim for a pure sound)

ff

n *n* *mf*

STOP

Remove Clip on A string

ord. arco *tr*

[rall. trill speed]

[accel. trill speed]

Continue *ad. lib.*

344

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

[accel. trill speed]

f

n

n

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J
346
23:00

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

mp

n

ord. arco

ord.

tr

[*ad lib.* trill speed]

[* *rall.* trill speed]

Continue *ad lib.*

ad lib. transition

348

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

tr [ad lib. trill speed]

[* accel. trill speed]

ad. lib. transition

350

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

p ————— *f*

mf

fr [ad lib. trill speed]

fr [ad lib. trill speed]

CUE D 3 and C 2

ad. lib. blend materials and resonators

00:23:16:00 Wood mics to Ring Mod to Speakers (cont'd)
+ Piezo stick to Piano & Speakers

353

23:32

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

p *f*

mf

tr [ad lib. trill speed]

Continue *ad. lib.*

355

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

fr [ad lib. trill speed]

p \rightarrow *f*

Continue *ad lib.*

357

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

[ad lib. trill speed]

tr

mp

[ad lib. trill speed]

p

Continue *ad lib.*

363

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Continue *ad. lib.*

367 24:32

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

STOP piezo stick activity

Carefully FADE OUT Piezo Stick

Continue *ad. lib.*

371

Time

Wood 1

Wood 2

Crot.

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

to Wood Block

n

p

pp

Carefully FADE OUT
Wood Transducers

[wood continues]

00:24:40:00

K

25:00

375

Time

Perc.

Wood 1

Improvise Activity Pine cone

p±

*ad lib. accel/decel phrases
freely improvise and react to electronics*

Wood 2

p±

Vln 1

ppp

n

Vln 2

n

Vla 1

Sul II
e.s.p.
col legno battuto

pp

n

Vla 2

Sul II
ord.
col legno battuto

pp

Vc.

Sul II
col legno battuto
s.p.

n

pp

Elect.

[Playback Continues]

CUE A

n

00:24:56:00



378

Time

Transducer

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain Playback

Sul III
s.p.
col legno battuto

Sul III
s.p.
col legno battuto

ord.
pp

Sul I
muted pizz.
p

s.t.-----s.p.
col legno jeté

p

382 25:32

Time

Transducer

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Sul I
muted pizz.

p

s.t.-----ord.
col legno jeté

ord.

p

s.t.-----s.p.
col legno jeté

Sul I
ord.

Maintain Playback

385

Time

Transducer

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

s.p.-----s.t.
col legno jeté

Vln 2

muted pizz.

Vla 1

Vla 2

Vc.

Elect.

Maintain Playback

389 26:00

Time

Transducer

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Ad lib. density and placement of material
Responded to the electronics you hear in the speakers
closest to you

Ad lib. density and placement of material
Responded to the electronics you hear in the speakers
closest to you

Ad lib. density and placement of material
Responded to the electronics you hear in the speakers
closest to you

Ad lib. density and placement of material
Responded to the electronics you hear in the speakers
closest to you

Ad lib. density and placement of material
Responded to the electronics you hear in the speakers
closest to you

Sul II

s.p.-----s.t.

col legno jeté

ord. muted pizz.

p[±]

arco

s.t.-----s.p.

col legno jeté

ord. muted pizz.

p[±]

Sul II

s.t.-----s.p.

col legno jeté

ord. muted pizz.

p[±]

s.p.-----s.t.

col legno jeté

arco

ord. muted pizz.

p[±]

Sul II

s.t.-----s.p.

col legno jeté

ord. muted pizz.

p[±]

Maintain Playback

00:25:52:00

393

Time

Transducer

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain Playback

00:26:08:00

L

26:32

Time
397

Transducer

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

The musical score is arranged in a vertical stack of staves. From top to bottom, the staves are: Time (with a bar line at 397), Transducer (a long horizontal line with an arrow), T. Bl. 1, 2, and 3 (with a bar line at 397 and a dynamic marking *p*), Vln 1 (with dynamics *p* and *pp*), Vln 2 (with dynamics *p* and *pp*), Vla 1 (with dynamics *p* and *pp*), Vla 2 (with dynamics *p* and *pp*), Vc. (with dynamics *p* and *pp*), and Elect. (with a bar line at 397 and a dynamic marking *p*). The score includes various performance instructions such as 'Sul II', 'Sul IV', 'Sul III', and 'Sul I', along with 'B.B. Col legno' and 'col legno battuto'. A large watermark 'NB noter' is overlaid on the score, and a red diagonal watermark 'This music is copyright protected' is also present.

Maintain Playback
+ Soundfile to Tamtam to speakers

401

Time

Transducer

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Maintain Playback

00:26:40:00

s.p.
col legno battuto

ppp

ord.

s.p.

ppp

ord.

s.t.

ppp

pppp

ord.

ppp

405 27:00

Time

Transducer

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2 *s.t.*
pppp

Vla 1

Vla 2

Vc. *e.s.t.*
pppp

Elect. Maintain Playback

The image shows a musical score for a piece titled "Entanglements". At the top, there is a page number "130" and the title "Entanglements". Below this, there is a time display showing "405" and a boxed time "27:00". The score is organized into several staves: "Time", "Transducer", "T. Bl. 1", "T. Bl. 2", "T. Bl. 3", "Vln 1", "Vln 2", "Vla 1", "Vla 2", "Vc.", and "Elect.". The "Time" and "Elect." staves have a double bar line at the beginning and a long horizontal line with a right-pointing arrow. The "T. Bl." staves contain musical notation with notes, rests, and dynamic markings like "pp". The "Vln 2" staff has a dynamic marking of "pppp" and a "s.t." marking. The "Vc." staff has a dynamic marking of "pppp" and an "e.s.t." marking. A large watermark "NB noter" is overlaid on the score, with the text "This music is copyright protected" written in red below it. At the bottom left, there is a time code "00:26:56:00".

409

Time

Transducer

T. Bl. 1

T. Bl. 2

T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

Stop

ppp

Maintain Playback

00:27:12:00

413

27:32 - 29:00

Time

Transducer

T. Bl. 1
T. Bl. 2
T. Bl. 3

Vln 1

Vln 2

Vla 1

Vla 2

Vc.

Elect.

pppp

No activity / motion
til end
Electronic Solo

No activity / motion
til end
Electronic Solo

No activity / motion
til end
Electronic Solo

Electronic Solo
27: 30- 28:40