

Fanfare for Standing Reverberation

B \flat Trumpet Quartet

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Premise

This piece is written for four trumpets and a large reverberant space. It relies on the reverberation of sound in the space to shape the distribution and time intervals between different entries by using decibel meters attached to the trumpets to measure the level of sound intensity. Players enter when the decibel meter records one of three crucial values corresponding to the decaying of a reverb tail.

Sonic properties of an unspecified large space are framed and reframed by the entries of the trumpet players. Variations in directionality of sound emission, volume of sound emission, regularity of sound emission, frequency of sound emission, and nature of sound emission all play a part in shaping the length and colour of a reverb tail, and ultimately convey a detailed account of the resonant properties of the chosen space.

Parts are written in *B♭*

Sections and Episodes

Solo

solo entries, 1 player, all three reverb lengths, all four directionalities.

Random

Random entries, 2 players, all three reverb lengths, all four directionalities.

Ransom entries, 3 players, all three reverb lengths, all four directionalities.

Random entries, 4 players, all three reverb lengths, all four directionalities.

Random II

Random entries, 4 players, all three reverb lengths, inconsistent directionalities.

Hockett

Between 2 players, covering all combinations of 3 players in the ensemble, fixed directionality, changing reverb value.

Between 3 players, covering all combinations 3 of players in the ensemble, fixed directionality, changing reverb value.

Between 4 players, changing directionality, changing reverb value.

Hockett II

Between 4 players, inconsistent directionalities, reverb values changing overall but consistent between players.

Between 4 players, inconsistent reverb values, consistent directionality.

Hockett III

Consistent reverb value and directionality, 3 players, 1 interrupter.

Inconsistent reverb value, consistent directionality, 3 players 1 interrupter.

Inconsistent reverb value, consistent directionality, 2 players 2 interrupters.

Sustained

Sustained movement Sequences in Pairs.

Slowly Morphing Chordal Texture with Movement.

Set intensity followed by Movement followed by Set intensity.

The Space

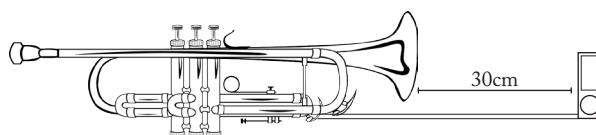
Space Specification

The reverberation time of the space should be over 5 seconds long. The space should be as reflective as possible with stone, metal, brick, glass or plastic surfaces (spaces such as Cathedrals or large Sports Halls are perfect). The space should have as few obstacles as possible allowing for free movement of the players. Audience members should stand around the perimeter of the space.

Piece Preparation

Equipment

Decibel meters should be small and light enough to be attached to a trumpet (They may either be bought or made using good quality clip-on microphones). Decibel meters should all be the same make and model to that the reading of the decibel level in the space is consistent between all four players. Decibel meters should be attached to trumpets so that their microphones are roughly 30cm from the bell of the instrument and so that their screens may be seen clearly. Players must all wear wristwatches that can be visible during the performance and that clearly display seconds.



Measuring decibel meter values

The reverb length of the space should be measured to determine the three crucial values, x , y and z around which entries in the piece are structured. Firstly, record the decibel level in the space when there is no sound. Secondly a player should play a staccato **B4** on a trumpet from the centre of the space at 100dB:

z is defined as the decibel reading that was present before the note was played: the ambient sound level of the room

x is defined as the decibel reading that is present in the instance directly after the note stopped sounding

y is defined as the decibel reading that is halfway between these two values (N.B the decibel scale is logarithmic, so this is the value that is recorded halfway between x and z in terms of *time*. It is not calculated by calculating the midpoint between the two in decibels).

It is imperative that fixed values are chosen for each reverb state, even if these values only last for a fraction of a second in real time (or fluctuate, as will be the case with the ambient noise level of the space).

Important: Decibel meter values should be measured with the audience in the space, just before the performance starts.

Intensities

It is important that the playing intensity is fixed for the duration of the piece in order to demonstrate the way in which the reverb length may vary.

Notes for Hockett, Unison and Random sections should be 100dB and staccato. It will be necessary to vary the intensity to keep the loudness constant, as the loudness of pitches produced by the trumpet varies with range. Players should practise playing the range of the trumpet at a constant loudness in the space to get used to how it feels.

Notes in the sustained section should have an intensity exactly half of that in in the other sections. This may be calculated by subtracting 10dB from the decided value. Notes should be sustained plainly, with no vibrato and as little fluctuation in dynamic as possible.

Notation

30"  

The notation example shows four staves of music. Above the first staff is a circled '1'. Above the second, third, and fourth staves is an 'x'. Below the first staff is an 'O', below the second is a 'W', below the third is an 'F', and below the fourth is a 'C'. The music consists of quarter notes on a treble clef staff with a key signature of one sharp (F#).

Each line of the score is a system which describes a musical event. Systems are read down the page from bottom to top. Players are labelled from one to four in columns. As the piece involves movement, the score is designed as simply as possible to best allow its contents to be memorised. Generally, the left hand side of the score defines the duration of a system, whilst the right hand side describes the transition between systems. In the absence of information on the right hand side of the score, systems run on immediately. Staves describe the pitch material that players should perform, whilst sections dictate the ways in which material should be performed (see following page).

Directionality

Four different directionalities of playing are used in the piece. These are, *Ordinary* (facing any of the other three) players, *Wall* (playing at the nearest wall), *Floor* (playing at the floor), *Ceiling* (playing at the ceiling). These four directionalities are denoted throughout the piece by the letters O, W, F and C. When directionalities are consistent between all four players, they are indicated vertically on the left hand side of the page. When they are not, they are stated per player below the staff. Where directionalities are listed, the system in question should be repeated for each directionality from top to bottom, for the specified number of times for each directionality. Sustained sections are focused on movement, so directionalities are not used.







Pitch

Players may choose freely from the pitches presented to them. All of these pitches must be performed with relatively equal weighting over the course of the piece, however it does not matter in which order they are performed. Players should focus on the process of the piece over pitch material. Where extremely high material is presented, it is more important that players maintain their stamina than giving equal weighting to high pitches.

Decibel Meter Reading

This is written above each individual staff and may either be consistent across all players or vary for each player.

Symbols

-  Pauses intersperse systems in the Random section. They should last for ca.5".
 -  Where entries are in unison, this symbol is placed over the player that should bring the ensemble in.
 - — Dotted lines separate episodes.
 - Arrows indicate whether Hockets should start from right to left or left to right.
 -  circular movement requires players to move either on the spot or in a circle of any size over the time frame indicated.
 -  Linear movement requires players to move in a straight line away from and back to their original point over the time frame specified.
 -  Where hocketts are interrupted, brackets define hocketting players from interrupting players.
 -  In sustained sections, this symbol indicates the amount of overlap between systems.
 - ?
- Where this symbol replaces a reverb value, a player is free to enter when they wish.

Sections

30" (1) z z z z

Random C O W F m

All players enter in unison. Entries should be signalled by player one, and initial entries for each system should all be conducted in the 'O' position (following the unison entry, players turn to their designated directionality). Following the first unison entry of a system, due to differing reaction times and directionalities of sound propagation, performers will register the designated reverb value at slightly different times. In this section, players fight for entries, with the first to reach the designated dB level entering first. Each time a player enters, they will change the decibel reading on other player's meters, varying according to positionally and separation distance. If your dB meter never reaches the marked level, do not play. Play whenever your decibel meter records the designated value. Systems should last for the more or less the time quantity marked on the left-hand side of the score.

3O
3W
3F
3C

Hockett

Arrows indicate whether hockets should be played from left to right or right to left. Players should enter when their decibel meters record designated reverb values which may vary or be consistent within a Hockett. Directionalities may also vary or be consistent within a Hockett. Hockets build in texture, using only two players at first. In Hockett II, they are slightly more complex, using inconsistent directionalities and reverb values. In Hockett III, bracketed players maintain a Hockett whilst non-bracketed player interrupts. Interruptions should only occur one every hockett. If there are two player interrupting, then they should take it in turns to interrupt once every hockett. Question marks leave interjection timings free to the interrupting player. Solo sections are performed in the same way as hockett sections, only with one player.

(1) v v 0.25v 0.25v

Sustained

move to point nearest to, or matching marked intensity

0.15

All notes are sustained in this section. Breathing is always staggered. Players should enter in unison.

Sustained movement sequences in pairs: One pair of players holds a dyad whilst the other two players move to a position in the space where their decibel meter records the marked reading. This reading is defined in relation to the sound intensity level v , which corresponds to half of x . The resulting effect is that players move around in space to locations that are completely contingent on the way that the space sounds. Players within their pairs should always find different locations with the marked intensity. Players may also have to change direction in order to reach certain intensities. There should always be five seconds of overlap between one pair starting and another finishing where all four players play. This pattern may be repeated for as long as is desired.

Slowly Morphing Chordal Texture with Movement: This is similar to the above, but only one player moves at a time. There should always be five seconds of overlap between one player starting and another finishing where all four players play. This pattern may be repeated for as long as is desired.

Set intensity followed by Movement followed by Set intensity: Performers start in the 'N' position, playing a note of set intensity and recording the reading on their dB meter, before continuing to hold the pitch and moving around the space in a specified manner for the time quantity indicated on the left hand side of the score. When this action is complete, players should return to a position where they are able to re-record the original intensity.

Structuring a Performance

Fanfare for Standing Reverberation is presented as a set of short sections, containing even shorter episodes, separated by dotted lines. Sections may be performed individually or any amount of sections and episodes may be combined in any order to form a longer performance. It is advised that the piece is rehearsed in the performance space, and a combination of sections and episodes is chosen that best exploits the sonic properties of that space.

More material is presented than one could reasonably expect trumpet players to have stamina to perform in a single performance and it would be nearly impossible to memorise all of the systems for the piece, so it is expected that individual performances take a selection of systems which can be memorised sufficiently that players do not need scores when they perform.

It is recommended that unison and hockett sections are interspersed with sustained material, as this then resets the positions of players, changing the impact of subsequent unison and hockett sections.

Starting positions

The piece should start with players the players at evenly distributed around the limits of the space (e.g. at the four corners of the space if it is a rectangular space).

Fanfare for Standing Reverberation

Solo

p1


2O

2W

2F

2C

x



p2

p3

p4

2O

2W

2F

2C

y



2O

2W

2F

2C

z



2O

2W

2F

2C

x



2O

2W

2F

2C

y



Solo

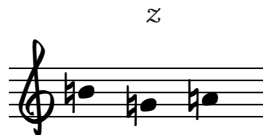
p1

2O
2W
2F
2C

p2

p3

p4



2O
2W
2F
2C



2O
2W
2F
2C



2O
2W
2F
2C



2O
2W
2F
2C



Solo

p1

p2

p3

p4

2O
2W
2F
2C



2O
2W
2F
2C



Random

15" p1 p2 p3

(1) x x

15" (1) y y

15" (1) z z

30" (1) x x x

30" (1) y y y

Random

p1 p2 p3 p4

30" (1) z z z

45" (1) x x x x

45" (1) y y y y

45" (1) z z z z

Random II

30" p1 p2 p3 p4

(*l*)

x *x* *x* *x*

O W F C

Detailed description: This block contains four musical staves, each representing a different player (p1, p2, p3, p4). Each staff begins with a circled 'l' and a '30"' time indicator. Above each staff is a dynamic marking 'x'. The notes on the staves are: p1 (O) has notes G4, A4, B4, C5; p2 (W) has notes G4, A4, B4, C5; p3 (F) has notes G4, A4, B4, C5; p4 (C) has notes G4, A4, B4, C5.

30" (*l*)

x *x* *x* *x*

W F C O

Detailed description: This block contains four musical staves, each representing a different player (p1, p2, p3, p4). Each staff begins with a circled 'l' and a '30"' time indicator. Above each staff is a dynamic marking 'x'. The notes on the staves are: p1 (W) has notes G4, A4, B4, C5; p2 (F) has notes G4, A4, B4, C5; p3 (C) has notes G4, A4, B4, C5; p4 (O) has notes G4, A4, B4, C5.

30" (*l*)

y *y* *y* *y*

F C O W

Detailed description: This block contains four musical staves, each representing a different player (p1, p2, p3, p4). Each staff begins with a circled 'l' and a '30"' time indicator. Above each staff is a dynamic marking 'y'. The notes on the staves are: p1 (F) has notes G4, A4, B4, C5; p2 (C) has notes G4, A4, B4, C5; p3 (O) has notes G4, A4, B4, C5; p4 (W) has notes G4, A4, B4, C5.

30" (*l*)

z *z* *z* *z*

C O W F



Detailed description: This block contains four musical staves, each representing a different player (p1, p2, p3, p4). Each staff begins with a circled 'l' and a '30"' time indicator. Above each staff is a dynamic marking 'z'. The notes on the staves are: p1 (C) has notes G4, A4, B4, C5; p2 (O) has notes G4, A4, B4, C5; p3 (W) has notes G4, A4, B4, C5; p4 (F) has notes G4, A4, B4, C5.

— — — — —



Hockett

p1 p2 p3 p4



50

→  



50

→  



50

→  

50

→  

50

→  

Hockett

50 p1 p2 p3 p4

50

50

50

50

50

The image displays a musical score for a piece titled "Hockett". It consists of five systems of musical notation, each starting with a measure number "50" and an arrow pointing to the right. The notation is written on a single treble clef staff for each system. The notes are quarter notes, and the key signature has one sharp (F#). The systems are labeled with parts p1, p2, p3, and p4. The first system shows p1 and p4. The second system shows p1, p2, and p3. The third system shows p2, p3, and p4. The fourth system shows p1, p2, and p4. The fifth system shows p1, p3, and p4. Dynamic markings include α , z , and y . There are also dashed lines below the second and fifth systems.

Hockett

p1 p2 p3 p4

3O
3W
3F
3C

3O
3W
3F
3C

3O
3W
3F
3C

Hockett II

p1



p2



p3



p4



Hockett II

60

p1 p2 p3 p4

z z z y

60

z y z y

60

x y z y

80

x x z y

80

x x x y

Hockett III

p1 p2 p3 p4

50

50

50

50

50

Hockett III

50

p1 p2 p3 p4

→

50

→

50

→

Sustained

p1 p2 p3 p4

(*l*) *v* *v* 0.25*v* 0.25*v*

move to point nearest to, or matching marked intensity

ol 5"

0.5*v* 0.5*v* (*l*) *v* *v*

move to point nearest to, or matching marked intensity

ol 5"

(*l*) *v* *v* 0.75*v* 0.75*v*

move to point nearest to, or matching marked intensity

ol 5"

v *v* *v* *v*

move to point nearest to, or matching marked intensity

ol 5"

Repeat pattern for as long as is desired



Sustained II

p1

p2

p3

p4

1

v

v

v

0.1v



move to point nearest to, or matching marked intensity

v

v

0.25v

v



move to point nearest to, or matching marked intensity



v

0.5v

v

v



move to point nearest to, or matching marked intensity



v+

v

v

v

move to point nearest to, or matching marked intensity



ol 5"

ol 5"

ol 5"

ol 5"

Repeat pattern for as long as is desired



Sustained III

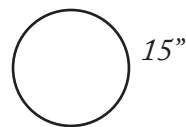
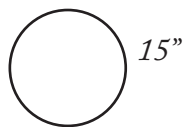
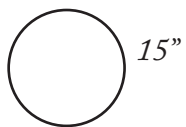
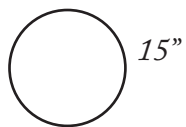
p1

p2

p3

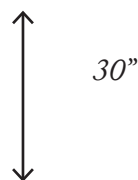
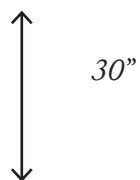
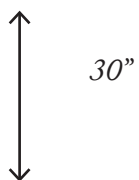
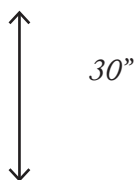
p4

v *v* *v* *v*



v *v* *v* *v*

v *v* *v* *v*



v *v* *v* *v*
