

Joshua Hahn

Recombined Forces

for Full Orchestra

Recombined Forces, for full orchestra, provides contrast by changing the inner divisions of the whole. These divisions include the gradual separation of the orchestra into different choirs, evolving rhythmic and contrapuntal roles, and the harmonic reordering of one central recurring chord into smaller chords with contrasting characters. The idea of recombination is both highly musical and conceptually relevant to work in other fields. In music, the idea of grouping and regrouping the forces of the orchestra is an idea that has captivated composers of the past and present. In biology, genetic recombination helps to promote genetic variety in a population. Any scholarly contribution is at least partially a re-organization and re-assembly from previous papers in the form of citations. Lastly, in a consumer-driven society, the idea of re-using rather than throwing out goods and buying new ones is an important concept. The piece reveals how subtle changes in organization can lead to vastly different results.

Instrumentation:

3 Flutes
3 Oboes
3 Clarinets in B \flat , 3 doubling Bass Clarinet
3 Bassoons, 3 doubling Contrabassoon

4 Horns in F
3 Trumpets in C, 3 doubling Flugelhorn in B \flat
2 Tenor Trombones
Bass Trombone
Tuba

3 Percussion (see below)
Harp

Strings

Distribution of the 3 Percussion Parts:

Percussion 1

Crotales (higher set)

Vibraphone

2 Wood Blocks



Snare Drum

Percussion 2

Wood Block



3 Almglocken (any pitches)



Suspended Cymbal (small)



Opera Gong (small, with quickly ascending tone)



Medium Gong



Percussion 3

Xylophone

Chimes

Log Drum



Duration: 7' 30"

Recombined Forces

for Full Orchestra

Joshua Hahn
2013

Tranquil
♩ = 60

The score is divided into several systems of staves. The first system includes Flute 1, Flute 2, Flute 3, Oboe 1, 2, Oboe 3, B♭ Clarinet 1, 2, B♭ Clarinet 3, Bassoon 1, 2, and Bassoon 3. The second system includes F Horn 1, 2, F Horn 3, 4, C Trumpet 1, 2 (with a Flugelhorn part), Flugelhorn in B, Trombone 1, 2, Bass Trombone, and Tuba. The third system includes 2 Wood Blocks (Soft and Medium Mallets), 1 Wood Block, 3 Almglocken, and Log Drum. The fourth system includes Harp. The fifth system includes Violin 1, Violin 2, Viola, Cello, and Double Bass. Dynamics range from *pp* to *mf*. Performance instructions include '1. Solo', 'Remaining Players', and 'Div. a. 2'. The tempo is marked as *Tranquil* with a metronome marking of ♩ = 60.

Recombined Forces

12

The score is divided into two systems. The first system includes Flutes (Fl. 1, 2, 3), Oboes (Ob. 1, 2, 3), Bass Clarinets (B♭ Cl. 1, 2, 3), Bassoons (Bsn. 1, 2, 3), Horns (Hn. 1, 2, 3, 4), Trumpets (C Tpt. 1, 2), Flg. Hn., Trombones (Tbn. 1, 2, 3), Tuba (Tba.), Bowed Vibraphone, and W. Bl. Alm. The second system includes W. Bl., L. Dr., Harp (Hp.), Violins (Vln. 1, 2), Viola (Va.), Violoncello (Vc.), and Double Bass (Db.).

Dynamic markings include *p*, *pp*, *mp*, *p < f*, *pizz.*, *arco*, *loco*, and *Solo*. Performance instructions include *To Bowed Vibraphone*, *To Bowed Crotales*, and *1. Solo*.

22 a.2

Fl. 1, 2 *p* *pp* *mp* *pp* *f* *pp* *f*

Fl. 3 *p* *pp* *mp* *pp* *f* *pp* *f*

Ob. 1, 2 *pp* *mp* *pp* *f* *pp* *f*

Ob. 3 *pp* *mp* *pp* *f* *pp* *f*

B♭ Cl. 1 *p* *p < f* *p < f* *pp* *f*

B♭ Cl. 2 *p* *pp* *mp* *pp* *f* *pp* *f*

B♭ Cl. 3 *p* *pp* *mp* *pp* *f* *pp* *f*

Bsn. 1, 2 *p* *pp* *mp* *pp* *f* *pp* *f*

Bsn. 3 *pp* *mp* *pp* *f* *pp* *f*

Hn. 1, 2 *pp* *p < f* *pp* *f* *fp*

Hn. 3, 4 *p* *p < f* *p < f* *p < f*

C Tpt. 1, 2 2. Con sord. *p < f* *pp* Senza sord. *p < f* *p < f*

Flghn. *pp* *dolce p* *pp* *p < f* *p < f* To C Trumpet

Tbn. 1, 2 2. Con sord. *p < f* *pp* Senza sord. *p < f* *p < f*

Tbn. 3 Con sord. *pp* Senza sord. *p < f* *p < f*

Tba. *pp* *pp* *p < f* *fp* *< f*

Crt. Bowed Crotales *p < f* *p < f* *p < f* To Snare Drum Wooden Sticks

W. Bl. Alm. *mp* *pp* *mp* *pp* *fp*

L. Dr. *pp* *mp > pp* *mp > pp* *fp*

Hp.

VI. 1 *p < f* *pp* *f* *pp* *f* *f*

Vln. 2 *p < f* *pp* *f* *pp* *f* *f pizz.*

Va. *p* *pp* *f* *pp* *f* *f*

Vc. *arco* *p* *pp* *f* *pp* *f*

Db. *p* *pp* *f* *pp* *f*

Recombined Forces

Vivacious, Effervescent

♩ = 108

Fl. 1, 2, 3
Ob. 1, 2, 3
B♭ Cl. 1, 2, 3
Bsn. 1, 2, 3

Hn. 1, 2
Hn. 3, 4
C Tpt. 1, 2
C Tpt. 3
Tbn. 1, 2
Tbn. 3
Tba.

Vivacious, Effervescent

♩ = 108

S. Dr.
W. Bl. Alm.
L. Dr.
Hp.

Vivacious, Effervescent

♩ = 108

Vi. 1
Vln. 2
Va.
Vc.
Db.

Recombined Forces

This page of the musical score, titled "Recombined Forces" and numbered 7, contains the following parts and markings:

- Flutes (Fl. 1, 2, 3):** Part 1 starts at measure 42. Dynamics include *fp*, *f*, and *ff*.
- Oboes (Ob. 1, 2, 3):** Dynamics include *f*, *fp*, and *ff*.
- Clarinets (B♭ Cl. 1, 2, 3):** Dynamics include *f*, *fp*, and *ff*.
- Bassoons (Bsn. 1, 2, 3):** Dynamics include *f*, *fp*, and *ff*.
- Horns (Hn. 1, 2; Hn. 3, 4):** No notation is present.
- Trumpets (C Tpt. 1, 2; C Tpt. 3):** No notation is present.
- Trombones (Tbn. 1, 2; Tbn. 3):** No notation is present.
- Tuba (Tba.):** No notation is present.
- Snare Drum (S.Dr.):** Dynamics include *mp* and *mf*.
- Wood Block (W. Bl. Alm.):** Dynamics include *mf*, *f*, and *mf*.
- Large Drum (L. Dr.):** Dynamics include *mf* and *f*.
- Harpsichord (Hp.):** No notation is present.
- Violins (Vl. 1, 2):** Part 1 starts at measure 42. Dynamics include *p*, *mp*, and *f*. Includes "Non-Harmonic" markings.
- Viola (Va.):** Dynamics include *mf* and *mp*. Includes "Non-Harmonic" markings.
- Violoncello (Vc.):** Dynamics include *mp* and *f*.
- Double Bass (Db.):** No notation is present.

Martial

B

Fl. 1, 2 *ff* *a. 2* *(3+2)* *(sempre ♩ = ♩)*

Fl. 3 *ff*

Ob. 1, 2 *ff*

Ob. 3 *ff*

B_♭ Cl. 1, 2 *ff* *a. 2*

B_♭ Cl. 3 *ff*

Bsn. 1, 2 *ff* *a. 2*

Bsn. 3 *ff*

Martial

B

Hn. 1, 2 *sfz* *1. +* *(3+2)* *(sempre ♩ = ♩)*

Hn. 3, 4 *sfz*

C Tpt. 1, 2 *sfz* *1. >*

C Tpt. 3 *sfz*

Tbn. 1, 2

Tbn. 3

Tba.

Martial

B

Vib. *To Vibraphone* *4 Hard Mallets* *(3+2)* *(sempre ♩ = ♩)*

W. Bl. Alm. *ff*

Chm. *To Chimes* *Hard Mallets*

Hp.

Martial

B

VI. 1 *ff* *Sul pont.* *(3+2)* *(sempre ♩ = ♩)*

Vln. 2 *mf* *arco* *ff* *mf* *ff* *mf*

Va. *mf* *arco* *ff* *mf* *ff* *mf*

Vc. *mf* *arco* *ff* *mf* *ff* *mf*

Db. *mf* *arco* *ff* *mf* *ff* *mf*

54 **Clamorous** (3+2)

Fl. 1, 2
Fl. 3
Ob. 1, 2
Ob. 3
B_♭ Cl. 1, 2
B_♭ Cl. 3
Bsn. 1, 2
Bsn. 3

Clamorous (3+2)

Hn. 1, 2
Hn. 3
Hn. 4
C Tpt. 1, 2
C Tpt. 3
Tbn. 1, 2
Tbn. 3
Tba.

Open
Senza sord.
C Trumpet

Clamorous (3+2)

Vib.
W. Bl. Alm.
Chm.
Hp.

Vibraphone
4 Hard Mallets
sempre l.v.
ff possible
ff Chimes
ff possible sempre l.v.

Clamorous (3+2)

VI. 1
Vln. 2
Va.
Vc.
Db.

Ord.
Ord.
mf
ff
ff
ff
ff
ff

109 1.

Fl. 1, 2 *p* *pp* *pp* (3 + 2)

Fl. 3 *pp*

Ob. 1, 2 1. *p* *pp*

Ob. 3

B_♭ Cl. 1, 2 1. *p* *pp* *pp*

B_♭ Cl. 3

Bsn. 1, 2 1. *pp*

C. Bn.

Hn. 1, 2 (3 + 2)

Hn. 3, 4

C Tpt. 1, 2

C Tpt. 3

Tbn. 1, 2

Tbn. 3

Tba.

S. Dr. (3 + 2)

W. Bl. Alm.

Chm. Chimes *pp*

Hp. *G#* *G_b* *G#* *mf* *E_b* *B_b* *G_b*

VI. 1 *mp* *pp* *mp* *pp* *pp* (3 + 2)

Vln. 2 1. Solo con sord. *pp* *mp* *pp* *mp*

Va. 1. Solo con sord. *pp* *mp* *pp* *pp* *pp*

Vc. 1. Solo con sord. *pp* *mp* *pp* *mp* *pp* *mp*

Db.

Recombined Forces

Martial
(3 + 2)

119

Fl. 1, 2 (3 + 2) (2 + 3) **Martial** (3 + 2) *ff*

Fl. 3 *ff*

Ob. 1, 2 *ff* a. 2

Ob. 3 *ff*

B_♭ Cl. 1, 2 *pp* *ff* a. 2

B_♭ Cl. 3 *pp* *ff*

Bsn. 1, 2 *ff* a. 2

C. Bn. *ff*

Hn. 1, 2 (3 + 2) (2 + 3) **Martial** (3 + 2) 1. *sfz* (3 + 2)

Hn. 3, 4 3. *sfz* *sfz*

C Tpt. 1, 2

C Tpt. 3

Tbn. 1, 2

Tbn. 3 *sfz* Con sord.

Tba.

S. Dr. (3 + 2) To Vibraphone 4 Hard Mallets (2 + 3) **Martial** (3 + 2) (3 + 2)

W. Bl. Alm. *f* *ff* To Suspended Cymbal Small Opera Gong (ascending) Medium Gong

Chm.

Hp. C₄ G₄ A₄ E₄ (3 + 2)

VI. 1 (solo) *mp* *pp* (3 + 2) *mp* *mf* *ff* *mf* *ff* *mf* *ff* *mf* **Martial** *Sul pont.* (3 + 2)

VI. 2 *pp* *mp* *pp* *mf* *ff* *mf* *ff* *mf* *ff* *mf* *ff* *mf*

Va. *mp* *pp* *pp* *mf* *ff* *mf* *ff* *mf* *ff* *mf* *ff* *mf*

Vc. *pp* *mp* *pp* *mp* *ff* *mf* *ff* *mf* *ff* *mf* *ff* *mf*

Db. *mf* *ff* *mf*

132

(3 + 2)

a. 2

(3 + 2)

Fl. 1, 2

Fl. 3

Ob. 1, 2

Ob. 3

B_♭ Cl. 1, 2

B_♭ Cl. 3

Bsn. 1, 2

C. Bn.

Hn. 1, 2

Hn. 3, 4

C Tpt. 1, 2

C Tpt. 3

Tbn. 1, 2

Tbn. 3

Tba.

Vib.

Sus. Cym.
Sm. Gg.
Med. Gg.

Chm.

Hp.

VI. 1

Vln. 2

Va.

Vc.

Db.

fp *ff* *p* *fp* *ff* *sffz* *fp* *fp*

f *fp* *f* *fp* *f* *fp* *f* *fp* *f* *fp* *f* *fp*

f *p* *fp* *f* *fp* *f* *fp* *f* *fp*

ff *sffz* *ff* *sffz*

ff *sffz* *ff* *sffz*

stopped l.v. stopped l.v. stopped l.v.

ffz *ffz*

(3 + 2) (3 + 2)

(3 + 2) (3 + 2)

137 *a. 2*

J Powerful, Vibrant *ff* *a. 2*

Fl. 1, 2

Fl. 3

Ob. 1, 2

Ob. 3

B_♭ Cl. 1, 2

B_♭ Cl. 3

Bsn. 1, 2

C. Bn.

Hn. 1 *fp* *ff* *p* *fp* **J** Powerful, Vibrant *ff*

Hn. 2 *fp* *ff* *p* *ff* *fp* *ff* *ff*

Hn. 3 *fp* *ff* *p* *fp* *ff* *ff* *ff*

Hn. 4 *fp* *ff* *p* *ff* *fp* *ff* *ff*

C Tpt. 1 *f* *fp* *f* *fp* *ff* *f* *f*

C Tpt. 2 *f* *fp* *f* *fp* *f* *f* *f*

C Tpt. 3 *f* *fp* *f* *fp* *f* *f* *f*

Tbn. 1 *ff* *fp* *fp* *ff* *ffz* *f* *f*

Tbn. 2 *fp* *ff* *ffz* *f* *f* *f* *f*

Tbn. 3 *ff* *fp* *ff* *f* *f* *f* *f*

Tba. *fp* *fp* *f* *f* *f* *f* *f*

J Powerful, Vibrant *f*

Vib. *stopped* *L.v.*

Sus. Cym.
Sm. Gg.
Med. Gg.

Chm. *To Xylophone*
Hard Mallets *Xylophone*

J Powerful, Vibrant *ff* *non-div.*

Vl. 1 *ff* *non-div.* *ff*

Vln. 2 *ff* *non-div.* *ff*

Va. *ffz* *non-div.* *ff*

Vc. *ffz* *non-div.* *ff*

Db. *non-div.* *ff*

142

Fl. 1, 2
Fl. 3
Ob. 1, 2
Ob. 3
B♭ Cl. 1, 2
B♭ Cl. 3
Bsn. 1, 2
C. Bn.
Hn. 1, 2
Hn. 3, 4
C Tpt. 1, 2
C Tpt. 3
Tbn. 1, 2
Tbn. 3
Tba.
Vib.
Sus. Cym.
Sm. Gg.
Med. Gg.
Xyl.
Hp.
VI. 1
Vln. 2
Va.
Vc.
Db.

To Wood Block
Soft Mallets

ff
f
non-div.

Ecstatic, Thunderous

148

Fl. 1, 2

Fl. 3

Ob. 1, 2

Ob. 3

B \flat Cl. 1, 2

B \flat Cl. 3

Bsn. 1, 2

C. Bn.

To Bass Clarinet

Hn. 1, 2

Hn. 3, 4

C Tpt. 1

C Tpt. 2

C Tpt. 3

Tbn. 1, 2

Tbn. 3

Xyl.

VI. 1

non-div.

non-div.

non-div.

non-div.

Va.

non-div.

non-div.

non-div.

Vc.

non-div.

non-div.

Db.

153

Fl. 1, 2

Fl. 3

Ob. 1, 2

Ob. 3

B♭ Cl. 1, 2

B♭ Cl. 3

Bsn. 1, 2

C. Bn.

Hn. 1, 2

Hn. 3, 4

C Tpt. 1

C Tpt. 2

C Tpt. 3

To Flugelhorn

Tbn. 1, 2

Tbn. 3

Vl. 1

Vln. 2

Va.

Vc.

Db.

158

This page of the musical score, titled "Recombined Forces", contains measures 158 through 162. The instrumentation includes:

- Flutes (Fl. 1, 2 and Fl. 3)
- Oboes (Ob. 1, 2 and Ob. 3)
- Bassoons (B₃ Cl. 1, 2 and B₃ Cl. 3)
- Clarinet in B₃ (C. Bn.)
- Horns (Hn. 1, 2 and Hn. 3, 4)
- Trumpets (C Tpt. 1, 2)
- Flugelhorn (Flghn.)
- Trombones (Tbn. 1, 2 and Tbn. 3)
- Tuba (Tba.)
- Violins (Vln. 1 and Vln. 2)
- Violas (Va.)
- Violas (Vc.)
- Double Basses (Db.)

The score is written in a common time signature. The woodwind and brass sections are mostly silent in these measures, indicated by horizontal lines with dashes. The string section (Violins, Violas, and Double Basses) is active, playing complex rhythmic patterns with various accidentals. The percussion part (Tuba) also has some activity, with notes and rests.

163 **Calando**

Fl. 1, 2
Fl. 3
Ob. 1, 2
Ob. 3
B \flat Cl. 1, 2
B \flat Cl. 3
Bsn. 1, 2
C. Bn.

Calando

Hn. 1, 2
Hn. 3, 4
C Tpt. 1, 2
Flghn.

W. Bl. **Calando**
Wood Block
Soft Mallets

Hp. **Calando**
pp solo

Vi. 1 **Calando**
pp
Con sord.

Vln. 2 **Calando**
pp
Con sord.

Va. **Calando**
pp
Con sord.

Vc. **Calando**
pp

Db. **Calando**
pp

