

Three field studies from
DEMAREST/LLOYD

Josiah Wolf Oberholtzer (1984)

♩ = 64

DEMAREST

I

musical score for section B, measures 1-4.

Instrument parts and their staves:

- A1**: [v.] (voice), [sh. g. w.g.] (string quartet)
- A2**: [v.] (voice), [sh. g. w.g.] (string quartet)
- A3**: [sh. g. w.g.] (string quartet)
- A4**: [sh. g. w.g.] (string quartet)
- T1**: [w.b.] (trumpet)
- T2**: [r. sn. t.t.] (trumpet)
- T3**: [t.b.] (trumpet)
- B1**: [sh. g. w.g.] (string quartet)
- B2**: [sh. g. w.g.] (string quartet)
- B3**: [sh. g. w.g.] (string quartet)
- B4**: [sh. g. w.g.] (string quartet)

Annotations and performance markings:

- String Quartet (A1-A4, B1-B4)**:
 - sh.**: Shimmer
 - g.**: Gong
 - w.g.**: Wind Gong
 - circle**: Circle
 - pitch pipe**: Pitch pipe
 - p**: piano
- Trumpet (T1-T3)**:
 - ct.**: Clarinet
 - LV**: Low Volume
 - bowed**: Bowed
 - perc.**: Percussion
 - superball**: Superball
 - t.b.**: Trumpet
 - ppp**: pianissimo
- Other**:
 - struck**: Struck
 - vb.**: Very Loud
 - (p)**: piano

Score for measures 12-17. The score is divided into two systems. The first system contains staves A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, and B4. The second system contains staves B1, B2, B3, and B4. Each staff has a bracketed label on the left indicating the instrument and its playing technique: A1, A2, A3, A4 (sh., g., w.g.), T1 (ct.), T2 (r., sn., t.t.), T3 (t.b.), B1, B2, B3, B4 (sh., g., w.g.). The score is written in 4/4 time and C major. The notation includes various musical symbols such as notes, rests, and dynamic markings.

$\text{♩} = 32$

$\frac{4}{4}$ C

Score for measures 18-23. The score is divided into two systems. The first system contains staves A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, and B4. The second system contains staves B1, B2, B3, and B4. Each staff has a bracketed label on the left indicating the instrument and its playing technique: A1, A2, A3, A4 (sh., g., w.g.), T1 (ct.), T2 (r., sn., t.t.), T3 (t.b.), B1, B2, B3, B4 (sh., g., w.g.). The score is written in 4/4 time and C major. The notation includes various musical symbols such as notes, rests, and dynamic markings. The score also includes a section for percussion (perc.) and a section for a low voice (LV) instrument, both of which are marked with a 'p' dynamic.

musical score for percussion instruments, featuring staves for A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, and B4. The score includes various techniques such as *sh.* (shave), *g.* (gong), *w.g.* (wood gong), *spun*, *wh. (inhale)*, *h.* (hammer), *s.* (stick), *r.* (rattle), *sn.* (snare), *t.t.* (tom-tom), *toms & b.d.* (toms and bongo drums), *superball*, *brushed*, *f.* (forte), *fp* (fortissimo), and *p* (piano).

The score is organized into systems, with each system containing multiple staves. The staves are labeled with instrument abbreviations and techniques. The score includes various musical notations, including notes, rests, and dynamic markings. The score is written in a standard musical notation style, with a key signature of one sharp (F#) and a time signature of 4/4.

The score is divided into sections by instrument groups. The first section includes staves A1, A2, A3, and A4. The second section includes staves T1, T2, and T3. The third section includes staves B1, B2, B3, and B4. The score includes various techniques such as *sh.* (shave), *g.* (gong), *w.g.* (wood gong), *spun*, *wh. (inhale)*, *h.* (hammer), *s.* (stick), *r.* (rattle), *sn.* (snare), *t.t.* (tom-tom), *toms & b.d.* (toms and bongo drums), *superball*, *brushed*, *f.* (forte), *fp* (fortissimo), and *p* (piano).

Score for Percussion Ensemble, measures 1-4.

Drum Set (A1, A2, A3, A4): *sh.* (snare), *g.* (gong), *w.g.* (wood gong). *spun* (spun). *wh. (inhale)* (whistle, inhale). *f.* (forte), *fp* (fortissimo), *p* (piano).

Tom Set (T2): *r.* (ride), *sn.* (snare), *t.t.* (tom-tom). *superball* (superball). *brushed* (brushed). *mf* (mezzo-forte).

Tom Set (T3): *toms & b.d.* (toms and bass drum). *wh. (inhale)* (whistle, inhale). *p* (piano).

Bells (B1, B2, B3, B4): *sh.* (snare), *g.* (gong), *w.g.* (wood gong). *spun* (spun). *wh. (inhale)* (whistle, inhale). *f.* (forte), *p* (piano).

Measure 1: A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, B4. *wh. (inhale)* (whistle, inhale). *f.* (forte), *fp* (fortissimo), *p* (piano).

Measure 2: A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, B4. *wh. (inhale)* (whistle, inhale). *f.* (forte), *fp* (fortissimo), *p* (piano).

Measure 3: A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, B4. *wh. (inhale)* (whistle, inhale). *f.* (forte), *fp* (fortissimo), *p* (piano).

Measure 4: A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, B4. *wh. (inhale)* (whistle, inhale). *f.* (forte), *fp* (fortissimo), *p* (piano).

$\text{♩} = 72$

4 E

The image shows a musical score for a 12-part ensemble, organized into four systems of three staves each. The parts are labeled A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, B4, and B4. Each staff has a key signature of one flat (B-flat) and a 4/4 time signature. The notation includes various musical symbols such as notes, rests, and dynamic markings. The score is written for a large ensemble, likely a symphony orchestra or a similar large group.

$\text{♩} = 48$

44 F

48

A1 *sh.*
g.
w.g.

A2 *sh.*
g.
w.g.

A3 *sh.*
g.
w.g.

A4 *sh.*
g.
w.g.

T1 [*ct.*]

T2 *r.*
sn.
t.t.

T3 *toms*
&
b.d.

B1 *sh.*
g.
w.g.

B2 *sh.*
g.
w.g.

B3 *sh.*
g.
w.g.

B4 *sh.*
g.
w.g.

Score for percussion instruments A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, B4. The score is divided into measures, with each instrument part showing a sequence of notes and rests.

♩ = 32
4/4 G

Score for percussion instruments A1, A2, A3, A4, [v.], T1, T2, T3, [v.], B1, B2, B3, B4. The score includes various musical notations such as notes, rests, and dynamic markings (p, f, fp). It also features color-coded regions (pink, green, orange) and specific performance instructions like "spun", "brushed", "superball", "wh. (inhale)", and "sh-".

wh. (inhale) *f. fp* *p* *pitch pipe* *struck* *circle*

A1 *sh.* *g.* *w.g.* *spun* *circle* *pitch pipe* *struck* *circle*

A2 *sh.* *g.* *w.g.* *spun* *circle* *pitch pipe* *struck* *circle*

A3 *sh.* *g.* *w.g.* *spun* *circle* *pitch pipe* *(p)*

A4 *sh.* *g.* *w.g.* *spun* *circle* *pitch pipe* *p* *fp*

T1 *ct.* *bowed* *LV* *pitch pipe* *bowed* *LV* *pitch pipe*

T2 *r.* *sn.* *t.t.* *superball* *p* *bowed* *vb.* *LV* *brushed* *perc.* *f* *pitch pipe* *bowed* *vb.* *LV* *perc.* *superball* *p* *brushed* *mf*

T3 *toms* *&* *b.d.* *LV* *t.b.* *LV* *LV* *perc.* *p*

B1 *sh.* *g.* *w.g.* *spun* *circle* *pitch pipe* *pitch pipe*

B2 *sh.* *g.* *w.g.* *spun* *circle* *pitch pipe* *(p)* *pitch pipe*

B3 *sh.* *g.* *w.g.* *spun* *circle* *pitch pipe* *(p)* *pitch pipe*

B4 *sh.* *g.* *w.g.* *spun* *circle* *pitch pipe* *pitch pipe*

This musical score is for a percussion ensemble, featuring 16 staves and various performance instructions. The staves are organized into four groups of four:

- A1, A2, A3, A4:** Each group consists of a vocal line (v.) and three lines for snare (sh.), tom (g.), and woodblock (w.g.).
- T1, T2, T3:** Each group consists of a vocal line (v.) and three lines for snare (sh.), tom (g.), and woodblock (w.g.).
- B1, B2, B3, B4:** Each group consists of a vocal line (v.) and three lines for snare (sh.), tom (g.), and woodblock (w.g.).

Performance instructions and markings include:

- pitch pipe**: Indicated by a box above the vocal line.
- circle**: Indicated by a box above the vocal line.
- struck**: Indicated by a box above the vocal line.
- sh.**: Snare drum.
- g.**: Tom drum.
- w.g.**: Woodblock.
- p**: Piano.
- (p)**: Piano.
- ppp**: Pianissimo.
- mf**: Mezzo-forte.
- mb.**: Maracas.
- perc.**: Percussion.
- brushed**: Brushed.
- lv.**: Low volume.
- vb.**: Very low volume.
- t.b.**: Tom drum.
- bowed**: Bowed.

musical score for percussion instruments A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, B4.

Key features include:

- Instrument A1:** [v.] (vibraphone), [sh. g. w.g.] (sh. g. w.g.).
- Instrument A2:** [v.] (vibraphone), [sh. g. w.g.] (sh. g. w.g.).
- Instrument A3:** [v.] (vibraphone), [sh. g. w.g.] (sh. g. w.g.).
- Instrument A4:** [sh. g. w.g.] (sh. g. w.g.).
- Instrument T1:** [ct.] (celesta), [LV] (low volume), [bowed] (bowed).
- Instrument T2:** [r. sn. t.t.] (r. sn. t.t.), [bowed] (bowed), [LV] (low volume).
- Instrument T3:** [toms & b.d.] (toms & b.d.), [t.b.] (t.b.), [LV] (low volume).
- Instrument B1:** [v.] (vibraphone), [sh. g. w.g.] (sh. g. w.g.).
- Instrument B2:** [sh. g. w.g.] (sh. g. w.g.).
- Instrument B3:** [sh. g. w.g.] (sh. g. w.g.).
- Instrument B4:** [sh. g. w.g.] (sh. g. w.g.).

Annotations include:

- pitch pipe** (pitch pipe)
- circle** (circle)
- struck** (struck)
- ct.** (celesta)
- LV** (low volume)
- bowed** (bowed)
- t.b.** (t.b.)

Dynamic markings include:

- p** (piano)
- fp** (fortissimo)
- ppp** (pianissimo)

Other markings include:

- 3:2** (3:2)
- (p)** (piano)

$\text{♩} = 48$

4 J

102

$\text{♩} = 72$

4 K

The diagram illustrates a quantum circuit for a 4-qubit system. The qubits are labeled A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, B4. Each qubit has a control line (sh.) and a target line (g.). The circuit is divided into four stages by vertical lines. The operations are as follows:

- Stage 1:** A1 and A2 are controlled by T1 and T2, which are controlled by T3. B1, B2, B3, and B4 are controlled by A1, A2, A3, and A4 respectively.
- Stage 2:** A1 and A2 are controlled by T1 and T2, which are controlled by T3. B1, B2, B3, and B4 are controlled by A1, A2, A3, and A4 respectively.
- Stage 3:** A1 and A2 are controlled by T1 and T2, which are controlled by T3. B1, B2, B3, and B4 are controlled by A1, A2, A3, and A4 respectively.
- Stage 4:** A1 and A2 are controlled by T1 and T2, which are controlled by T3. B1, B2, B3, and B4 are controlled by A1, A2, A3, and A4 respectively.

The final output is shown on the right side of the circuit.

108

114

A1	$\left[\begin{array}{c} sh. \\ w.g. \end{array} \right]$	
A2	$\left[\begin{array}{c} sh. \\ g. \\ w.g. \end{array} \right]$	
A3	$\left[\begin{array}{c} sh. \\ g. \\ w.g. \end{array} \right]$	
A4	$\left[\begin{array}{c} sh. \\ g. \\ w.g. \end{array} \right]$	
T1	[<i>ct.</i>]	
T2	[<i>v.b.</i>]	
T3	[<i>t.b.</i>]	
B1	$\left[\begin{array}{c} sh. \\ g. \\ w.g. \end{array} \right]$	
B2	$\left[\begin{array}{c} sh. \\ g. \\ w.g. \end{array} \right]$	
B3	$\left[\begin{array}{c} sh. \\ g. \\ w.g. \end{array} \right]$	
B4	$\left[\begin{array}{c} sh. \\ g. \\ w.g. \end{array} \right]$	

♩ = 48

$\frac{4}{4}$ L

♩ = 64

$\frac{4}{4}$ M

A1

sh.

g.

w.g.

A2

sh.

g.

w.g.

A3

sh.

g.

w.g.

A4

sh.

g.

w.g.

T1

et.

T2

vb.

T3

t.b.

v.

B1

sh.

g.

w.g.

v.

B2

sh.

g.

w.g.

v.

B3

sh.

g.

w.g.

v.

B4

sh.

g.

w.g.

circle

circle

circle

circle

LV

bowed

LV

bowed

perc.

LV

t.b.

LV

pitch pipe

pitch pipe

pitch pipe

pitch pipe

pitch pipe

circle

This musical score is for a string quartet (A1, A2, A3, A4) and three percussionists (T1, T2, T3). The string parts are in G major and 4/4 time, with a key signature of one sharp (F#). The percussion parts are in G major and 4/4 time, with a key signature of one sharp (F#). The score includes various dynamic markings such as *ppp*, *p*, *f*, *fp*, and *ff*. It also features performance instructions like *brushed*, *perc.*, *superball*, *pitch pipe*, *circle*, *sh.*, *g.*, *w.g.*, *lv.*, *vb.*, *t.b.*, and *perc.*. The percussion parts include a variety of instruments: T1 (cl.), T2 (vb.), and T3 (t.b.). The string parts include a variety of instruments: A1, A2, A3, and A4 (sh., g., w.g.). The score is divided into measures by vertical bar lines, and the percussion parts are marked with specific rhythmic patterns and dynamics.

musical score for multiple instruments and voices, including parts labeled A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, and B4. The score includes various musical notations such as notes, rests, and dynamic markings (p, fp, ppp).

Key performance instructions and markings include:

- pitch pipe** (multiple instances)
- circle** (multiple instances)
- sh.** (shout)
- g.** (growl)
- w.g.** (wailing/growl)
- struck** (multiple instances)
- perc.** (percussion)
- superball** (multiple instances)
- t.b.** (tomb tom)
- LV** (low volume)
- bowed** (multiple instances)
- 8:7** (interval marking)
- 6:5** (interval marking)
- fp** (fortissimo)
- ppp** (pianississimo)
- p** (piano)
- (p)** (piano)

This musical score page, numbered 138, contains measures 138 through 142. It features a variety of percussion parts and string sections. The percussion parts include four auxiliary drums (A1, A2, A3, A4), three toms (T1, T2, T3), and four bass drums (B1, B2, B3, B4). The string section consists of two violins (T1, T2) and two violas (T3, T4). The score is written in 4/4 time and includes a variety of musical notations, including notes, rests, and dynamic markings. The percussion parts are marked with 'struck' and 'circle' symbols, while the string parts are marked with 'pitch pipe' and 'bowed' symbols. The score also includes a variety of dynamic markings, including *mf*, *p*, *ppp*, *f*, and *fp*. The percussion parts are color-coded: A1, A2, A3, and A4 are purple; T1, T2, and T3 are yellow; and B1, B2, B3, and B4 are blue. The string parts are marked with 'pitch pipe' and 'bowed' symbols. The score is a complex arrangement of percussion and string parts, with a variety of musical notations and dynamic markings.

Measures 138-142. Percussion parts: A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, B4. String parts: T1, T2, T3, T4. Dynamics: *mf*, *p*, *ppp*, *f*, *fp*. Markings: struck, circle, pitch pipe, bowed, brushed, t.b., LV.

musical score for multiple instruments and voices, including staves A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, and B4. The score includes various musical notations such as notes, rests, and dynamic markings (p, pp, ppp, mf, fp, f). It also features performance instructions like "pitch pipe", "struck", "bowed", "brushed", "perc.", "superball", "t.b.", and "lv.".

The score is organized into systems, with each system containing multiple staves. The staves are labeled with instrument abbreviations and voice parts. The notation includes various musical symbols such as notes, rests, and dynamic markings. The score is written in a standard musical notation style, with a focus on clarity and readability.

musical score for multiple instruments and voices, including A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, and B4. The score features various musical notations, including notes, rests, and dynamic markings (e.g., *ppp*, *p*, *fp*, *mb.*, *superball*, *perc.*, *brushed*). It also includes performance instructions such as "pitch pipe", "circle", "struck", "bowed", "LV", "mb.", "superball", "perc.", and "brushed". The score is organized into systems, with each system containing multiple staves for different instruments or voices. The notation includes various musical symbols, such as clefs, time signatures, and dynamic markings, indicating the intended performance style and volume. The score is written in a standard musical notation style, with notes and rests on staves, and includes various performance instructions and dynamic markings.

This musical score is a detailed arrangement for a percussion ensemble, featuring 12 staves labeled A1 through B4. The notation is highly complex, incorporating various musical symbols and color-coded regions to represent different instruments and techniques.

Staff Labels and Groupings:

- A1, A2, A3, A4:** These staves are grouped together, each with a vertical label on the left: "A1", "A2", "A3", and "A4". Each staff has a "pitch pipe" label above it.
- T1, T2, T3:** These staves are grouped together, each with a vertical label on the left: "T1", "T2", and "T3". Each staff has a "pitch pipe" label above it.
- B1, B2, B3, B4:** These staves are grouped together, each with a vertical label on the left: "B1", "B2", "B3", and "B4". Each staff has a "pitch pipe" label above it.

Instrumentation and Techniques:

- Circle:** A label indicating a specific instrument or technique, often associated with a "pitch pipe" label.
- Sh. (Shimmer):** A label indicating a shimmer effect, often associated with a "pitch pipe" label.
- G. (Gong):** A label indicating a gong, often associated with a "pitch pipe" label.
- W.g. (Wire Gong):** A label indicating a wire gong, often associated with a "pitch pipe" label.
- Pitch Pipe:** A label indicating a specific pitch, often associated with a "pitch pipe" label.
- Struck:** A label indicating a struck instrument, often associated with a "pitch pipe" label.
- Brushed:** A label indicating a brushed instrument, often associated with a "pitch pipe" label.
- Perc. (Percussion):** A label indicating a percussion instrument, often associated with a "pitch pipe" label.
- ct. (Cymbal):** A label indicating a cymbal, often associated with a "pitch pipe" label.
- lv. (Lydian):** A label indicating a Lydian scale, often associated with a "pitch pipe" label.
- vb. (Vibraphone):** A label indicating a vibraphone, often associated with a "pitch pipe" label.
- t.b. (Tubular Bell):** A label indicating a tubular bell, often associated with a "pitch pipe" label.

Dynamics and Articulation:

- p (piano):** A dynamic marking indicating a soft volume.
- fp (fortissimo):** A dynamic marking indicating a very loud volume.
- ppp (pianissimo):** A dynamic marking indicating a very soft volume.
- mf (mezzo-forte):** A dynamic marking indicating a medium volume.
- 3:2** and **7:6**: Ratios indicating specific intervals or rhythms.

Color-Coded Regions:

- Blue:** Regions associated with the A1, A2, A3, and A4 staves.
- Yellow:** Regions associated with the T1, T2, and T3 staves.
- Orange:** Regions associated with the B1, B2, B3, and B4 staves.

The score is a highly detailed and complex musical arrangement, featuring a wide range of instruments and techniques, and is designed to be played by a large ensemble of musicians.

musical score for multiple instruments and voices, including staves A1, A2, A3, A4, T1, T2, T3, B1, B2, B3, and B4. The score includes various musical notations such as notes, rests, and dynamic markings (e.g., *ppp*, *p*, *fp*).

Key features and markings include:

- Circle markings:** Indicated above staves A1, A2, A3, A4, B1, B2, B3, and B4.
- Pitch pipe markings:** Indicated above staves T1, T2, T3, B1, B2, B3, and B4.
- Dynamic markings:** *ppp*, *p*, *fp*, and *(p)* are used throughout the score.
- Performance instructions:** *bowed*, *lv*, *vb*, *t.b.*, and *sh.* are included.
- Ratio markings:** $5:4$ and $3:2$ are present near specific notes.

A1

sh.

g.

w.g.

circle

sh.

g.

w.g.

circle

sh.

g.

w.g.

circle

sh.

g.

w.g.

circle

[v.]

pitch pipe

LV

bowed

[v.]

pitch pipe

[v.]

pitch pipe

B1

sh.

g.

w.g.

circle

sh.

g.

w.g.

circle

sh.

g.

w.g.

circle

sh.

g.

w.g.

circle