THE SAXOPHONE MUSIC OF FREDERICK FOX: AN ANNOTATED
BIBLIOGRAPHY WITH AN ANALYSIS OF S.A.X. FOR SOLO
ALTO SAXOPHONE AND SAXOPHONE QUARTET

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Dissertation Prepared for the Degree of

DOCTOR OF MUSICAL ARTS

UNIVERSITY OF NORTH TEXAS

December 2008

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Frederick Fox’s contributions to contemporary music are substantial, including eighty-three compositions written between 1966 and 1998. These include pieces for orchestra, wind ensemble, choir, solo instruments, and a variety of chamber ensembles.

This study serves as a complete annotated bibliography of Frederick Fox’s eight compositions which feature the saxophone in a prominent role, all of which were written between 1979 and 1998. They include a piece for unaccompanied solo alto saxophone, *Hear Again in Memory* (1991), two works for alto saxophone and piano, *Annexus* (1980), and *When the Thunder Speaks* (1998), a saxophone duet, *Visitations* (1982), two saxophone quartets, *3 Diversions* (1987) and *The Avenging Spirit* (1989), a saxophone quartet with solo alto saxophone, S.A.X. (1979), and a chamber piece for soprano and alto saxophone accompanied by piano and two percussionists, *Shaking the Pumpkin* (1986).

In addition, an analysis of Fox’s first composition for saxophone, S.A.X. for Solo Alto Saxophone and Saxophone Quartet, offers an insight into the compositional style of the composer.

A complete listing of all of Fox’s compositions, formal schemata of selected saxophone compositions, and a discography of his recorded saxophone compositions are included as appendices.
ACKNOWLEDGEMENTS

The impetus of this document, unbeknownst to me at the time, actually occurred in the late 1980s as I was first exposed to the music of Frederick Fox during my undergraduate studies at the Indiana University School of Music. For the musical education I received prior to acceptance into that institution, I wish to thank Larry Kirkman of Kokomo, Indiana.

I also wish to acknowledge the people directly and indirectly responsible for making this document possible: Fred and Ramona Fox, Eugene Rousseau, Eric Nestler, David Schwarz, and my committee members. Finally, I wish to thank James Aikman and Curtis Curtis-Smith for their correspondences which added invaluable information to this final document.

The musical examples and reproduced texts in this document are presented with the gracious permission of two music publishers. I would like to acknowledge Ken Dorn of Dorn Music Publications, Inc., for allowing me to include examples and texts from his publications. These include all of the pieces in this document except *Hear Again, In Memory*. The examples and texts from *Hear Again, In Memory* are reproduced with the permission of MMB Music, Inc.
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CHAPTER 1
INTRODUCTION

Biographical Sketch of Frederick Fox

Frederick Fox, born in 1931 in Detroit, Michigan, received his early musical training studying saxophone for six years under Larry Teal (1905-1984). Teal, an early pioneer in American classical saxophone performance and pedagogy, had a very large class of saxophonists in his private studio at the time. Without a doubt, Fox’s education under this master pedagogue and saxophone performer greatly influenced his compositional style for the genre in the years to come; however, before focusing his attention on composition, Fox also gained experience in jazz saxophone performance and arranging. This experience included arranging for radio and touring professionally with Al Cobine and other regional groups.

Fox’s first formal music composition teacher was Ruth Shaw Wylie at Wayne State University, where he received his Bachelor of Music degree in composition in 1953. Fox then studied composition with Ross Lee Finney at the University of Michigan from 1953-1954, before studying composition with Bernhard Heiden at the Indiana University School of Music. While at Indiana University, Fox received a master’s degree in composition in 1957 and a doctorate degree in composition in 1959. Fox joined the composition faculty at Indiana University in 1974 and founded the school’s New Music Ensemble the following year. These experiences would coalesce to create a truly unique contribution to the contemporary saxophone literature.

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1 Frederick Fox, telephone interview by author, 11 October 2002.
2 Ramona Fox, telephone interview by author, 22 October 2008.
3 Fox, resumé to author, 7 February, 2008.
Fox received three fellowships from the National Endowment for the Arts, served as Chairman of the Department of Composition and Department of Music at California State University, and served as Chairman of the Composition Department at Indiana University from 1981 to 1994. Fox remained on the Indiana University faculty until his retirement in 1997.

Several of Fox’s saxophone compositions have been premiered around the world by such artists as Eugene Rousseau, Michael Jacobson, and Thomas Liley, each of whom also recorded Fox’s music. Eugene Rousseau recorded S.A.X. with the Zagreb Saxophone Quartet’s 2001 release of Tsunagari on the Liscio label. Jacobson also recorded S.A.X. on his Mixed Company compact disc released the same year on the Equilibrium label. Robert Frascotti recorded Annexus on his self-titled release for Roncorp in 1983. Liley also recorded Annexus in 1983 on his Thomas Liley Plays Saxophone recording for the Roncorp label. Thomas Walsh recorded Shaking the Pumpkin on his 1998 compact disc release of the same name on the RIAX label.²

Purpose of the Study

Frederick Fox’s contributions to contemporary music are substantial, including eighty-three compositions written between 1966 and 1998. These include pieces for orchestra, wind ensemble, choir, solo instruments, and a variety of chamber ensembles. His output also includes seventeen compositions for high school and junior high choirs, beginning string orchestras, junior high school bands, and even a few examples of chamber music for young players.⁵ Despite such an extensive output, no examples of

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⁴ See Appendix C for a discography of Fox’s recorded saxophone music.
⁵ Fox, resumé.
scholarly research devoted to the music of Frederick Fox have been found by this author. A complete listing of all of Frederick Fox’s compositions is listed in Appendix B.

This study is intended to serve as a complete annotated bibliography of Frederick Fox’s eight compositions which feature the saxophone in a prominent role, all of which were written between 1979 and 1998. Six of his eight saxophone compositions are listed in Jean-Marie Londeix’s *A Comprehensive Guide to the Saxophone Repertoire*.\(^6\) The pieces omitted from the listing are his duet for two saxophones (*Visitations*) and his piece for solo saxophone (*Hear Again in Memory*).

In addition, a detailed analysis of S.A.X. will include methods described in Jan LaRue’s *Guidelines for Style Analysis* and nomenclature as discussed by Joseph Straus in *Introduction to Post-Tonal Theory*.

**Methodology/Organization**

The annotated bibliography of Fox’s music for saxophone will be formatted as follows:

I. Title/ Date/ Publisher Information
II. Instrumentation/Saxophone Ranges
III. Duration
IV. Recordings (if applicable)
V. Historical Background
VI. Overview
VII. Use of Non-conventional Rhythmic Notation
VIII. Errata (if applicable)
IX. Extended Techniques/ Performance Considerations

Overview of Compositions for Saxophone


Brief Overview of Compositional Style

The music of Frederick Fox is often very intense with sharp, piercing dissonances, angular melodic lines, and extreme dynamic contrasts; at other times, introspective and meditative. His music is not serialistic, but some pieces share characteristics associated with serialism, especially in his occasional use of repeated tone rows. Londeix’s important publication, *A Comprehensive Guide to the Saxophone Repertoire*, which is considered to be the most thorough listing of saxophone literature, contains only the following sentence describing the compositional style of Frederick Fox. “After an initial interest in serial techniques, Fox has since the early 1960s drawn more heavily on his considerable experience as a jazz musician.”

A saxophonist himself, Fox wrote idiomatically for the instrument from experience in classical and jazz performance. James Aikman, a former composition student of Fox, aptly describes his music:

\[\text{\textsuperscript{7} Ibid.}\]
Simply put, Fred Fox composes using a free, intuitive approach. He does incorporate various intervals (m2, m3rd, TT, M7th)\textsuperscript{8} as a generative force. Each of these intervals, in turn, becomes a possibility for use at successive points along the arch of his melodic writing. He writes often in sectionalized structures wherein each section maintains its own distinct, unique and beautifully consistent musical character. Techniques such as canon, inversion and responsorial dialogue interplay alongside a genuine jazz influence which distantly echoes his earlier experience as a saxophone performer and jazz arranger. Regardless of the formal schema or the compositional methods, his music is always colorful. Dr. Fox is a master orchestrator and creates unique sound worlds in each composition.\textsuperscript{9}

Fox’s unique compositional language includes musical gestures which deserve special attention, as they occur frequently in his compositions for saxophone. These two devices (coined by this author) are the “Fox sigh” and the “octatonic scale-inspired intervallic sequence,” or the O.S.I.S for short.

The “Fox sigh” consists of a descending glissando of unspecified pitches (usually) coinciding with a decrescendo to the dynamic marking of “0,” (“nothing”) or sometimes to the dynamic marking of pp (see Example 1). The first occurrence of this gesture in his music for saxophone occurs in the solo alto saxophone part of S.A.X. in measure 108. While this gesture is not unique to Fox, it occurs frequently enough to be a hallmark of his compositional language.

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\textsuperscript{8} m2 = minor second (one semitone), m3 = minor third (three semitones), TT = tritone (six semitones), M7 = major seventh (11 semitones).

\textsuperscript{9} James Aikman, Ann Arbor Michigan, to author, e-mail correspondence, 11 October 2002.
Example 1. *S.A.X.* m. 108. First occurrence of the “Fox sigh” gesture in Fox’s saxophone music.¹⁰

```
<table>
<thead>
<tr>
<th>Written pitches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo alto saxophone</td>
</tr>
</tbody>
</table>
```

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The “octatonic scale-inspired intervallic sequence,” or the O.S.I.S, consists of a melodic line which maintains the intervallic sequence of alternating interval classes 1 and 2 while frequently changing direction. An octatonic scale would be created if the sequence of alternating interval classes 1 and 2 continued in the same direction.

The first occurrence of this gesture in his music for saxophone appears in the solo alto saxophone part of *S.A.X.* at measure 17 (see Example 2).

Example 2. *S.A.X.* m. 17. First occurrence of the O.S.I.S. in Fox’s saxophone music.

```
<table>
<thead>
<tr>
<th>Unordered pitch class intervals:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 1 2 1 2 1 2 1 1</td>
</tr>
</tbody>
</table>
```

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¹⁰ Unless otherwise noted, all musical examples will be in written pitch. The soprano saxophone sounds a major second below the written pitch, the alto saxophone sounds a major sixth below the written pitch, the tenor saxophone sounds a major ninth below the written pitch, and the baritone saxophone sounds a major 13th below the written pitch.

¹¹ Unordered pitch class intervals are the same as interval classes (ic): ic 1 = one semitone in either direction, ic 2 = two semitones in either direction, etc.
Use of Non-Conventional Rhythmic Notation

Frederick Fox utilized a combination of conventional (metric) and non-conventional rhythmic notation in many of his compositions. Only one composition, *Annexus* for alto saxophone and prepared piano, was composed using non-conventional rhythmic notation entirely. When composing music without a meter, Fox notated relative rhythmic values in several ways, often creating a quasi-improvisatory element in many of his compositions.

If a series of pitches are to be played “as fast as possible,” the notes are beamed together and a short diagonal line is added at the beginning of the figure (see Example 3).

Example 3. *Annexus*, page 15, system one. “Fast as possible” notation.\(^\text{12}\)

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Sometimes when composing without a meter, Fox notates relative durational values of pitches (connected by a single beam) by their spacing on the page (see Example 4).

\(^{12}\) Arrows and other graphics (such as circles around pitches and some clefs) are added by author.

Notice the subtle differences in spacing

The two previous examples are shown together as presented in the score of *Annexus* in the following example (see Example 5). This type of rhythmic notation is inherently quasi-improvisatory due to the fact that each saxophonist may play the “as fast as possible” figures at varying speeds, and the pianist can only approximate the placement of the notated pitches in relation to the saxophone’s melodic line.

Example 5 *Annexus*, page 15, system one. “As fast as possible” over relative spacing.
Fox also often uses an “accelerando” figure in which a series of pitches are to be gradually accelerated (see Example 6). This is notated by “fanning out” the beams, and as the following example demonstrates, Fox often immediately follows the “accelerando” figure with an “as fast as possible” figure. Note that simultaneities of entrances and releases are notated with a vertical arrow connecting the parts.


The "accelerando" figure is used primarily during passages lacking in meter; however, it also occurs during instances of standard metric notation. When this occurs, Fox notates the number of pitches followed by a note value designating specifically how long the figure is to last (see Example 7). In this example, an “accelerando figure” consisting of six notes is to be played over the duration of a half note.
Example 7: S.A.X. measure 29. Use of “accelerando” figure over standard metric notation in the quartet.

Saxophone parts in written pitches

Solo alto saxophone:

Soprano saxophone
Alto saxophone
Tenor saxophone
Baritone saxophone

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Fox also employs a “ritardando” figure, which as expected, is simply the “accelerando” figure in reverse (see Example 8).


First alto saxophone part, written pitches

Duration line in seconds

Second alto saxophone part, written pitches

“Ritardando” figures

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When composing without a meter, Fox often provided a line notating approximate time durations in seconds for corresponding musical events between parts in the score. Moreover, sustained pitches are notated by an extended beam (see Example 9).

Example 9: *Annexus*, page 6, system 2. Time duration line and sustained pitches.

A brief discussion of the non-conventional rhythmic notation in his pieces for saxophone is included in each composition’s entry in the annotated bibliography as a means to demonstrate how this aspect of his compositional style evolved.
CHAPTER 2

ANNOTATED BIBLIOGRAPHY OF SAXOPHONE COMPOSITIONS


Instrumentation

Solo alto saxophone accompanied by the standard French instrumentation of the saxophone quartet (soprano, alto, tenor, baritone).  

Written Ranges

Solo alto saxophone, soprano, alto and baritone saxophones in quartet:

Tenor saxophone in quartet:

Duration

Approximately 10 minutes

---

13 The first saxophone quartet, debuting on Dec. 2, 1928 in La Rochelle, France, was comprised of Marcel Mule, soprano; René Chaligné, alto; Hippolyte Poinboeuf, tenor; and Georges Chauvet, baritone. This ensemble established the instrumentation for the genre. SOURCE: Eugene Rousseau, Marcel Mule: His Life and the Saxophone, (Shell Lake, WI: Etoile Music, Inc., 1982), 15.

Recordings

S.A.X. has been recorded twice at the time of this writing. Eugene Rousseau performed the solo alto saxophone part on S.A.X. with the Zagreb Saxophone Quartet's 2001 release of Tsunagari on the Liscio label. Michael Jacobson also performed the solo part on S.A.X. on his Mixed Company compact disc released the same year on the Equilibrium label.\(^{15}\)

Historical Background

Frederick Fox had been on the faculty of Indiana University for five years when he composed S.A.X. in 1979. This is his first piece for saxophone, and the only piece in his output which features the saxophone as a solo instrument accompanied by saxophone quartet (soprano, alto, tenor, and baritone saxophones).\(^{16}\) The piece is dedicated to Larry Teal (1905-1984), the prominent American saxophonist and pedagogue with whom Fox studied the saxophone under for six years in Detroit, Michigan.\(^{17}\) Fox also composed Night Ceremonies for orchestra the same year, which was published by MMB Music, Inc. S.A.X. was published in 1988 by Dorn Publications, Inc.

\(^{15}\) See Appendix C for a complete listing of Fox's recorded saxophone music.

\(^{16}\) Other examples of this genre include David Baker’s Faces of the Blues, Georges Aperghis’ Crosswind, David Kechley’s Music for Saxophones, Arturo Marquez’s Danzon VI, and Marilyn Shrude’s Evolution V. While these pieces are listed in Londeix’s A Comprehensive Guide to the Saxophone Repertoire 1844-2003, under the category “5 Saxophones,” Fox’s S.A.X. is absent from this list and only appears under the composer’s general entry.

\(^{17}\) Fox, telephone interview by author, 11 October 2002.
Overview

S.A.X. is a one-movement composition organized into four main sections based primarily on tempo designations. These large sections can be further divided into subsections with distinct transitional material strewn throughout the composition. The alto saxophone solo is mainly given distinct soloistic material, while at times becoming an equal voice in ensemble passages. The harmonic material emphasizes set class (0167), first expressed by pc set [2,3,8,9] in the accompanying quartet’s first sonority. Unique in Fox’s saxophone compositions, a clear reference to his background as a jazz arranger appears in a brief six-measure passage before the coda where an implicit jazz chord progression is presented.

Use of Non-conventional Rhythmic Notation

S.A.X. was composed using a mixture of conventional and non-conventional rhythmic notation. The “accelerando” figure is used exclusively in the solo part. It occurs when metric pulse is temporarily suspended through the use of a fermata in the accompanying quartet (see Example 10a) or while the accompanying quartet rests, and the “suspend metric” symbol denotes that no metric pulse is present (see Example 10b). Both of these examples also show that the “as fast as possible” figure often follows the “accelerando” figure in this piece.

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18 The analysis in this document will utilize integer notation in reference to pitch class (pc) sets and occasionally also regarding pitch-lines. In integer notation, 0 = C, 1 = C#, 2 = D, etc. No distinction is made regarding enharmonic spellings or octave equivalents. Of special note are the uses of T as an abbreviation for 10 (A#) and E as an abbreviation for 11 (B).

19 See Chapter 3 for a detailed analysis of S.A.X.
Example 10a: S.A.X. measure 1. Use of “accelerando” and “as fast as possible” figures over a fermata in the quartet.

Saxophone parts in written pitches.

Solo alto saxophone:
Soprano saxophone
Alto saxophone
Tenor saxophone
Baritone saxophone

“Accelerando”                “Fast as possible”

In this first example (Example 10a), the slashed-line denoting the “fast as possible” technique is located after the fingered glissando. In the second example (Example 10b), this same marking is placed before the first glissando; however, this author believes that Fox intended both phrases to be performed alike, and no distinction should be made regarding the placement of the slashed-line.
Example 10b: S.A.X. measure 197. Use of “accelerando” and “fast as possible” figures during “suspend metric” section.

The “accelerando figure” occurs frequently in the solo part during instances of standard metric notation in the accompanying quartet.

The “as fast as possible” figure is also used in the soprano, alto, and tenor parts of the accompanying quartet in conjunction with the “repeat figures inside box for duration of horizontal line” figure in a brief section from measures 137-150 (see Example 11).
Example 11: S.A.X. mm. 144-146. Use of “as fast as possible” figures in the quartet.

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Saxophone parts
in written pitches.

Solo alto saxophone
Soprano
Alto
Tenor
Baritone

"Repeat figures inside box for duration of horizontal line"
```

Errata

Before rehearsal begins, one important erratum must be corrected. The published baritone saxophone part is missing measures 56 and 57, and these missing measures are provided below. It is recommended that a photocopy be made of this page and the missing measures be cut-out and added as in insert to the end of the sixth system of the second page of the baritone saxophone part (see Example 12).

Example 12: S.A.X., baritone saxophone part missing measures 56-57, transposed.

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**Extended Techniques/ Performance Considerations**

The only extended technique in S.A.X. is the technique of “slow and wide” vibrato which appears in all of the voices of the ensemble except in the baritone. Fox notates the use of this technique by placing a wavy line above the notes in question (see Example 13).

Example 13. S.A.X., mm. 143-144.

This technique is accomplished by exaggerating the normal jaw-produced vibrato by widening the jaw-movement as well as slowing down the speed of the undulations. No other extended techniques occur in any of the voices of the ensemble.

The solo alto saxophone is featured primarily throughout as a separate entity, so it is wise to rehearse the saxophone quartet first before adding the solo line. It is also recommended to add important cues into the quartet parts prior to
the first rehearsal with the soloist. Some suggested cues are listed below (see Figure 1).

Figure 1. Suggested cues to import into the quartet parts.

1. The solo alto saxophone rhythm in measures 16, 26, 30, 45, 89, 140, 147, 155, and 203.
2. The tenor saxophone rhythm in measure 150
3. The soprano saxophone rhythm in measure 23
4. The soprano and alto unison rhythm in measure 91

This piece presents an alto saxophonist with the relatively rare opportunity to perform as soloist with a saxophone quartet. The solo part and the accompanimental parts require mature performers, but the lack of altissimo in any voice might make this piece accessible to medium to advanced college-level saxophonists.
**Instrumentation**

Alto Saxophone and prepared piano

**Written Range**

In addition to the above range designation, two brief instances of “highest possible altissimo notes” occur at the end of ascending glissandi.

**Duration**

Approximately 10 minutes

**Recordings**

Thomas Liley recorded *Annexus* in 1983 on his *Live in Concert* recording for the Roncorp label. Robert Frascotti also recorded *Annexus* on his self-titled release for the same company the same year.

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Historical Background

Annexus, composed in 1980, is Frederick Fox's first composition for saxophone and piano and the only piece in his saxophone literature to use prepared piano. The Harvard Dictionary of Music defines a prepared piano thusly:

A piano whose sound has been altered by inserting material such as bolts, rubber, cloth, and paper between the strings, thus altering pitch, loudness, and especially timbre.21

In the case of Annexus, bow hairs are to be strung under certain strings in advance of the performance (see the discussion below under Performance Considerations/ Extended Techniques).

Frederick Fox had been on the faculty of Indiana University for six years when he composed Annexus. The piece was commissioned by and dedicated to Thomas Liley and was published in 1988 by Dorn Publications, Inc. Other pieces composed by Fred Fox the same year are his Nilrem’s Odyssey for baritone voice and speaker, accompanied by soprano, alto, tenor, and baritone voices, and Sonaspheres 1, for flute/alto flute, flute/piccolo, clarinet, trumpet, trombone, violin, viola, piano, and two percussionists.22

Overview

Annexus is a single-movement composition which can be viewed as being sectionalized based on several factors: texture, motivic content, compositional techniques employed and overall intensity levels (see Appendix A for detailed

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22 Fox, resumé.
formal schemata). Despite the sectionalized structure, the piece is unified through the use of recurring motives and pitch cells, a limited use of intervals (including the *octatonic scale-inspired intervallic sequence*, or *O.S.I.S.*), and by two recurring prepared piano effects—bowed strings and muted strings, which are presented periodically to either introduce a new section or to close the previous section.

Atonality is achieved by fairly consistently presenting the chromatic pitch set without emphasizing any one pitch. The piece also contains elements of twelve-tone composition, often incorporating all twelve pitches of the chromatic scale in a series. These elements are used in a free manner, and are not employed consistently as a compositional method.

The texture of *Annexus* is largely monophonic, with one single-note melodic statement presented at a time; however, as the piece develops, both parts begin to overlap and present melodic material simultaneously in quasi free-form two-part polyphony. Sonorities are created as the result of pedaling in the piano at times, as well as in the vertical structures created when both parts are playing simultaneously.

An analysis of the introductory section of *Annexus* reveals important thematic content used throughout the composition.

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23 Refer to the discussion of this device on page eleven of this document.

24 The manner in which Fox notates these techniques is discussed below (Examples 30-32).

25 Fox also writes a few tonal clusters in the piano part near the end of the composition, but they are not pertinent to this discussion.
Annexus begins with its most striking features—a bowed piano string interspersed with a muted striking of the same piano string. These elements continue throughout the introduction, and effectively set the mood for the composition.26

The first statement by the saxophone introduces the seminal motive of the piece, hereafter referred to as the A motive. After three repeated bowings of the E string, the saxophone enters at approximately the nineteenth second mark at an imperceptibly soft dynamic level (notated by “o”), only to reach the dynamic level of piano by the second pitch. This causes the first pitch to be perceived as an anacrusis to the A motive. This motive consists of a descending octatonic scale fragment spanning the interval of a tritone, followed by an ascending M2. If these pitches all occurred in one direction, then the melodic material could be analyzed as being derived from one octatonic scale; however, Fox changes the direction of the last interval while maintaining the sequence of alternating interval classes 1 and 2. The A motive can be described most succinctly as having the ordered pitch intervals of -1, -2, -1, +2, and is an example of the previously discussed octatonic scale-inspired intervallic sequence, or O.S.I.S. (see Example 14).

26 See the discussion of these techniques in the “Extended Techniques/Performance Considerations” section below.
27 As designated by the Acoustical Society of America.

Ordered pitch intervals: 

\[-1 \quad -2 \quad -1 \quad +2\]

The A motive can also be described by its pitch class set \([E,0,1,2,3]\), which is a member of the chromatic set class (01234) (see Example 15).


Gives the A motive as a pitch class set \([E,0,1,2,3]\) and its set class.

Fox uses various motivic transformations of the A motive as well as its inherent elements as generating forces for subsequent material in the piece. These elements are the intervallic sequence of alternating interval classes 1 and 2 (O.S.I.S.), the chromatic pitch set formed by the A motive, and a submotive (x) formed by isolating the last three pitches (see Example 16). The x motive can be
described by the ordered pitch intervals -1, +2.


Ordered pitch intervals:                \[ m1 \quad +2 \]

The importance of the A motive is established early, as it immediately repeats in the second phrase of the saxophone part a perfect fourth lower (see Example 17).


Ordered pitch intervals:                \[ -1 \quad -2 \quad -1 \quad +2 \]

The third statement by the saxophone serves to further establish the importance of the A motive while at the same time demonstrating that the octatonic scale was perhaps its genesis. This is accomplished by finally maintaining the same direction of the melodic line while also maintaining the already established pitch intervals inherent in the previously stated A motive (and
the octatonic scale); however, this statement begins with a descending major second, or pitch interval 2, reminiscent of the first statement of the A motive with the anacrusis (see Example 18).

Example 18. *Annexus*, page 4, system 1. Octatonic scale fragment (Oct $_{0,1}$)

Ordered pitch intervals:  

\[-2\ -1\ -2\ -1\]

The second half of the introduction, which begins on the second system of page four, introduces octave displacement (a device which becomes important as the piece develops), the x submotive in inversion, as well as this composition’s first occurrence of the “Fox sigh”$^{28}$ (see Example 19a-b).


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$^{28}$ See the discussion of this gesture on page ten of this document.
Example 19b. *Annexus*, page 4, system 3. x submotive in inversion followed by the “Fox sigh”

The chromatic pc sets [7,8,9,T,E] and [0,1,2,3], which are members of set classes (01234) and (0123) respectively, continue to reinforce the composition's atonal quality (see Examples 20a-b).

Example 20b. *Annexus*, page 5, system 1. Set class (0123)

The introduction concludes with three more repetitions of the muted E1 string in the piano, with the third occurrence coinciding with the beginning of the A section.

*Use of Non-conventional Rhythmic Notation*

*Annexus* is Fox’s only saxophone composition entirely utilizing non-conventional rhythmic notation. A line notating approximate time durations in seconds for corresponding musical events is located between the saxophone part and the piano part on the score for approximately the first seven minutes of the piece. Relative rhythmic values of pitches are expressed by their spacing on the page, and sustained pitches are notated by extended beams. Fox also uses the “accelerando” figure and the “as fast as possible” figure (see Example 21).
Simultaneities of entrances and releases are notated with a vertical arrow connecting the piano part to the saxophone part (see Example 22).
Although the unmetered notation provides much of the piece with a rhythmically improvised rendering, a sense of pulse is achieved in a few instances where the pitches are notated with relatively equal spacing (see Example 23).


The time duration line is absent from the last section, approximately 2:45-3:00 to the end of the piece.\(^{29}\) This section is notated by “accelerando” and “fast as possible” figures over relatively spaced notes in the accompaniment, or simply by relatively spaced notes in either or both parts (see Example 24).

\(^{29}\) Duration of last section as notated by Fox, *Annexus*, p. 13.
Errata

No known errata occur in the published score; however, Fox’s notation for performing the written pitches at a different octave than written requires close attention by the pianist. Rather than using the standard designations of 8va or 8vb, Fox simply uses the number 8.

Extended Techniques/ Performance Considerations

Several extended techniques appear in the saxophone part of Annexus. These include lip glissandos at the interval of a minor second, one instance of a quarter-tone lip glissando, two unspecified “highest note possible” altissimo notes, the technique of “growling” or flutter-tonguing, and a few instances where the saxophonist is asked to produce a “slow and wide” vibrato. All of these extended techniques combine to produce a thoroughly modern-sounding composition, rich in colorful timbres and sonorities. The following examples (all of which are in the written pitches for the alto saxophone) show how these
techniques are notated in the score with performance suggestions where appropriate (Examples 25-29):

Example 25: *Annexus*, page 10, system 3. (Minor second lip glissando)

![Minor second lip glissando](image)

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This minor second lip glissando can be produced by a slight relaxation of the jaw after the initial pitch is established. The embouchure should return to normal at the beginning of the second pitch.

Example 26: *Annexus*, page 11, system 3. (Quarter-tone lip glissando)

![Quarter-tone lip glissando](image)

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Several quarter tone fingerings could be used for this pitch. One possible fingering is shown in Figure 2. The lip glissando can be accomplished as in the previous example.

Figure 2.
Example 27: *Annexus*, page 13, system 2. (Highest possible altissimo note)

Providing an explanation (or a fingering) for the technique of producing the “highest possible altissimo note” is impossible, as the pitch in question will vary according to the ability level of the performer.

Example 28: *Annexus*, page 11, system 1. (Slow and wide vibrato)

This technique is accomplished by exaggerating the normal jaw-produced vibrato by widening the jaw-movement as well as slowing down the speed of the undulations.

Example 29: *Annexus*, page 13, system 2. (Growl or flutter-tongue)
Flutter-tonguing can be produced in two ways. One way is to rapidly beat the tongue on the top of the mouth as if saying “drrr.” The other way is to use the throat to make a gargling sound.30 “Growling” can easily be accomplished by “humming” into the saxophone while playing the written pitch.

The piano part also incorporates several extended performance techniques, the most notable being bowed piano strings. The manner in which these occurrences are notated is shown below (see Example 30).

Example 30: Annexus, page 1, system 1

![Diagram of piano notation](image)

According to the performance notes by the composer, "bow hair should be threaded under strings in-between pins and hammers."31 The strings must be prepared in advance of performance, and are designated on the information page of the published score (see Example 31).32

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31 Frederick Fox, Annexus performance notes, Dorn publications. 1988.
32 The composer Curtis Curtis-Smith, currently on faculty at Western Michigan University, claims to have invented this technique in 1972. SOURCE: Curtis Curtis-Smith, Kalamazoo, Michigan, e-mail correspondence to author, 4 July 2006.
In this case, Fox uses the numeral 8 to signify that the actual strings are one octave lower than notated.

The technique of bowing the strings will require much practice and experimentation to achieve the desired effects on the part of the pianist. Varying the amount of pressure and the speed of the bowing will produce differing results, but the desired effect is that of a timbre rich in multiphonics, sounding somewhat like an immense double bass. Care must be taken to be sure that the bow hairs do not slip, so ample amounts of rosin should be applied.

Other extended techniques in the piano part include muted strings, palms on the strings, fingertip glissandos on the strings, and chromatic clusters on the keys. These are notated in the score in the following ways (see Examples 32 and 33).
Example 33: *Annexus*, page 19, system 2.

*Piano chromatic clusters*

Specified pitches (RH)

Chromatic cluster (LH)

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The main difficulty of preparing *Annexus* for performance arises from the lack of notated rhythmic values. Both performers must try to adhere to the given durations in seconds so as to coordinate entrances and releases. Simultaneous events by the saxophone and pianist must be well-rehearsed to avoid a gap from one event to the next, and the saxophonist should “cue” the pianist in many of these instances.

*Annexus* is a piece deserving of more attention among contemporary saxophonists. The relatively limited use of extended techniques in the saxophone part offers medium to advanced saxophone students the opportunity to delve into contemporary performance techniques.

Instrumentation

Two saxophones.

The first and third movements are written for two alto saxophones; however, Fox offers a choice of instrumentation for the second movement. According to the footnotes on page seven of the score (the beginning of the second movement), Fox states the following:

a) If ‘high-tone’ technique is not feasible (alto), soprano sax. may be substituted.

b) baritone sax. is preferred, sounding one octave lower.\textsuperscript{33}

The preferred instrumentation for this middle movement is then interpreted to be alto saxophone and baritone saxophone.

Written Ranges

First alto saxophone if soprano saxophone is not used:

\begin{center}
\includegraphics[width=0.5\textwidth]{saxophone_range1}
\end{center}

First alto saxophone if soprano saxophone is used:

\begin{center}
\includegraphics[width=0.5\textwidth]{saxophone_range2}
\end{center}

\textsuperscript{33} Fox, Visitations, (Medfield, MA: Dorn Publications, 2008), 7.
Soprano saxophone:

Second alto saxophone (first and third mvts.):

Baritone saxophone (second movement):

Duration

Approximately 10 minutes\textsuperscript{34}

Recordings

None

Historical Background

\textit{Visitations} represents Fox’s lost work for saxophone. He composed the piece for the internationally acclaimed saxophonist and pedagogue Eugene Rousseau (b. 1932) for a workshop for composers at Indiana University as a

\textsuperscript{34} Fox, \textit{Visitations}, pg. 1.
means to demonstrate compositional techniques for saxophone, although Eugene Rousseau never performed the composition. According to the composer, shortly after its completion, Fox “cannibalized” sections of the piece for use in subsequent compositions and never pursued its publication. As a direct result of this study, the piece is now available through Dorn Music, Inc. Fox also composed *Bren* for brass ensemble and *Gaber!* for six percussionists the same year.

**Overview**

*Visitations* is a three-movement composition: I. Moderato, II. Adagio, and III. Allegro Molto. Much of the piece is structured as a responsorial dialogue between the two saxophonists where Fox seems to explore the instrument’s inherent timbral possibilities. This piece is very complex and would require advanced performers on both parts.

**Use of Non-conventional Rhythmic Notation**

Fox composed *Visitations* (1982) using a mixture of conventional and non-conventional rhythmic notation. As in *Annexus*, Fox used a separate line between the two parts denoting approximate time durations in seconds.

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35 Fox, telephone interview by author, January 2008.
36 Eugene Rousseau, E-mail correspondence to author, December, 2005.
37 Fox, telephone interview.
38 Fox, resumé.
39 See the “Extended Techniques/Performance Considerations” discussion below.
throughout most of the first and all of the second movements.\(^{40}\) The relative durations of pitches are designated by differences in note-spacing above or below the time duration line (see Example 34).


Fox also employed the “accelerando” and the “fast as possible” markings during non-metric sections. In addition, he also used a “ritardando” figure, which as expected, is simply the “accelerando” figure in reverse (see Example 35). Fox used the “ritardando” figure only in the second movement in association with the alternation of an alternate fingering and the common fingering for the written saxophone pitch\(^{41}\) of \(d^{11}\) in both saxophone parts.

\(^{40}\) The first movement contains only seven measures written in traditional metric notation.

\(^{41}\) The saxophone’s written range indication is based on the standard system for octave designation. The B and Bb below “middle” C are written as lower-case letters. “Middle” C to B below third-space C is written as \(c^1\) – \(b^1\), followed by \(c^{11}\) – \(b^{11}\), etc. The normal range of the saxophone thus ends at \(f^{11}\) using this system.

The second movement is composed entirely using a time duration line between the two parts as relative note values are designated by changes in note spacing with extended beams representing sustained pitches. The third movement does not utilize a time duration line between the parts, but the rhythmic values are notated in traditional metric notation only in the last sixteen measures. Throughout the rest of the movement, Fox notates relative rhythmic values by his markings of the “fast as possible” and “accelerando” figures, as well as by the relative spacing of written pitches and extended beams for sustained pitches.

**Errata**

None known
Extended Techniques/ Performance Considerations

Visitations incorporates several extended techniques in both saxophone parts. The following key to these techniques is listed on the information page of the score (see Example 36).


![Example 36: Visitations, page 2.](image)

The “alternate fingering or ‘fluttering’ of extra keys,” (notated with a plus sign), is used in alteration with the common fingering of the written pitch (notated with a “o” or left blank) to produce a change in tonal color. The first movement begins with this technique in the first saxophone part (see Example 37).

Example 37. Visitations, mvt. 1, page 3, system 1.

![Example 37: Visitations, mvt. 1, page 3, system 1.](image)
Visitations is one of only two saxophone compositions in Fox’s output to utilize the technique of multiphonics, the other being Shaking the Pumpkin. Fox notates an “x” through the stem of the written pitch in which multiphonics containing that pitch are to be produced. In the first movement, this occurs only twice, each time after the pitch in question is to be produced normally (see Example 38). The first alto saxophonist must produce multiphonics containing the written pitch of c♯11, and the second alto saxophonist must produce multiphonics containing the written pitch of d111.

Example 38. Visitations, first movement, system 2.

The use of altissimo is limited to the first alto saxophone part, where the performer must produce pitches up to a c1111. If this is not possible, the performer may play the alternate soprano saxophone part.

As in Annexus, the main difficulty of preparing Visitations for performance arises from the lack of notated rhythmic values throughout much of the

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42 Multiphonics are simultaneous sounds produced with special fingerings and sometimes with more or less mouthpiece in the mouth. SOURCE: Londeix, Hello! Mr. Sax, 31.
composition. Both performers must try to adhere to the given durations in seconds while watching the score so as to coordinate entrances and releases.
Instrumentation

Alto and soprano saxophone (one performer), two percussionists, and piano.

The title page for this piece states that it was written for alto saxophone, piano and two percussionists, with an optional part for soprano saxophone included at times in the score; however, Eugene Rousseau informed this author about Fox’s intentions regarding instrumentation:

I have played Shaking the Pumpkin several times for the composer -- using only alto saxophone, and also playing both soprano and alto. He emphatically stated, despite what appears in the music, that he prefers using both soprano and alto saxophones.43

The soprano saxophone part appears in the score in mm. 1-14 and again in mm. 145-205.

The instrumentation for the two percussion parts is as follows:

Percussion 1: crotales, vibraphone, tambourine, 2 gongs or small toms, tam-tam, temple blocks, and 2 cowbells

Percussion 2: marimba, maracas, 4 tom-toms, sizzle cymbal, and bell tree44

43 Rousseau, E-mail correspondence to author, Aug. 30, 2003.
44 Fox, Shaking the Pumpkin. (Medfield, MA: Dorn Publications, 1988), 1.
Written Ranges

Alto saxophone (if used without soprano saxophone):

Alto saxophone (if used with soprano saxophone):

Soprano saxophone:

Duration

Approximately 15 minutes\textsuperscript{45}

Recordings

Thomas Walsh recorded \textit{Shaking the Pumpkin} on his 1998 compact disc release of the same name on the RIAX label.

\textsuperscript{45} Ibid.
Historical Background

Frederick Fox had served as the composition chairman for the Indiana University School of Music for five years when he composed *Shaking the Pumpkin*. He composed this piece with support from the National Endowment for the Arts. During the same year, Fox composed *Night Ceremonies* for orchestra.\(^{46}\)

Overview

*Shaking the Pumpkin* is perhaps Fox’s masterpiece for saxophone in regards to his use of orchestration and tonal colors. It is a one-movement composition which can be divided into sections based on texture, thematic material, intensity levels and tempo changes (see Appendix D for a detailed formal schematic). Three large-scale sections (labeled A-C) can be divided further into fourteen subsections (labeled a-n), with a cadenza-like passage preceding the large-scale C section and a coda which contains material reminiscent of the introduction.

A brief analysis of the introduction and the first section reveals Fox’s use of rich timbral colors in the percussion accompaniment and a jazz reference in the saxophone’s opening statement.

\(^{46}\) Fox, resumé.
Introduction (mm. 1-14)

The introduction sets the mood with various percussive techniques, such as brushes on tom-toms and bowed-crotales, while the soprano saxophone’s opening statement establishes the importance of the octatonic scale (Oct\textsubscript{2,3}). Repeated fragments of a descending minor blues scale\textsuperscript{47} in the saxophone imbue the composition with a strong jazz reference (see Example 39). The four pitches of the blues scale are also members of Oct\textsubscript{2,3}.

Example 39. *Shaking the Pumpkin*, mm. 1-3. Octatonic scale and blues scale fragment.

\textsuperscript{47} The traditional minor blues scale consists of the following scale degrees in relation to a major scale: 1, b3, 4, #4 (b5), 5, b7, 1.
Example 40a. *Shaking the Pumpkin*. mm. 29-31. Melodic statement derived from Oct 1,2

![Example 40a](image)

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Example 40b. *Shaking the Pumpkin*. mm. 32-34. First theme.

![Example 40b](image)

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The importance of this theme is confirmed at measure 39 when the alto saxophone repeats the theme transposed up a major seventh (see Example 41).

Example 41. *Shaking the Pumpkin*. mm. 39-40.

![Example 41](image)

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**Use of Non-conventional Rhythmic Notation**

*Shaking the Pumpkin* is primarily notated in conventional metric notation; however, Fox utilizes the “as fast as possible” and the “accelerando” figures in a few instances where standard metric notation occurs in other parts. In the following example, the marimba repeats a chord in the left hand “as fast as
possible” while the right hand plays a sixteenth note pattern, the piano continues a tremolo, and the saxophone plays a sextuplet (see Example 42).

Example 42. *Shaking the Pumpkin*, m. 98. Mixture of conventional and non-conventional rhythmic notation

![Ex 42](image)

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Fox utilized non-conventional rhythmic notation by itself only in a brief cadenza-like passage in measure 205 (see Example 43). Here, the saxophonist must “cue” the pianist to coordinate the end of its phrase with the beginning of the pianist’s phrase. Because both phrases are marked “as fast as possible” care should be taken to closely approximate the speed of both phrases.
Example 43. *Shaking the Pumpkin*, m. 205. Cadenza-like passage in non-conventional rhythmic notation.

Errata

None known

Extended Techniques/ Performance Considerations

*Shaking the Pumpkin* contains few instances of extended techniques in the saxophone part. Altissimo would only occur if the performer decided to use alto saxophone exclusively, and not switch to soprano as the composer intended. One instance of the use of alternate fingerings to achieve a change of tonal color occurs in measure 57 (see Example 44). The performer could achieve this effect by alternately releasing and closing the right hand for c#1111.
Example 44. *Shaking the Pumpkin*, mm. 57-58. Use of alternate fingering for change in tonal color.

Multiphonics occur in the alto saxophone part in only one passage in this piece, where an optional part without multiphonics is provided. This gives the performer a choice of whether or not to use this technique (see Example 45). Notice that the optional part lacking multiphonics is more rhythmically varied and contains more melodic interest.

Example 45. *Shaking the Pumpkin*, mm. 214-219. Use of multiphonics with alternate part.

Several extended performance techniques occur in the percussion and piano accompaniment, creating a wide variety of tonal colors. These include bowed-crotale, palm on open strings in the piano, fingernail glissandi on open
strings in the piano, and muted stings in the piano (produced by touching the string lightly between the pin and hammer while striking the key).

Due to the intricate accompaniment and the extensive use of varying meters, it is recommended to utilize a conductor in rehearsals and performance, although it could conceivably be performed without one given adequate rehearsal time and written-in cues in all parts.
Instrumentation

Saxophone Quartet (SATB)

Written Ranges

Soprano saxophone:

Alto saxophone:

Tenor and baritone saxophones:

Duration

Approximately 13 minutes\textsuperscript{48}

\textsuperscript{48} Fox, *3 Diversions*, (Medfield, MA: Dorn Publications, 1990), 1.
Recordings

None

Historical Background

Frederick Fox had served as the composition chairman for the Indiana University School of Music for six years when he composed 3 Diversions. No dedicatee is listed. Fox also composed the following pieces the same year: Silver Skeins for nine flutes, Polarities for symphonic band (commissioned by Ray Cramer and the Indiana University Bands), and Upon the Reedy Stream for oboe and string quartet.

Overview

As the title implies, 3 Diversions is a three-movement composition. The movements are organized in a modified fast-slow-fast arrangement: I. Moderato, II. Andante, and III. Allegro. Each movement is composed in a sectionalized structure (see Appendix D for a detailed formal schematic).

A cursory analysis of the first movement reveals that Fox utilized recurring pc sets as important structural elements. These recurring pc sets serve as arrival points between chromatic sixteenth-note excursions. The first eleven measures, subsection a, is organized around pc set [0,1,3,4], a member of the set class (0134). In fact, this exact pc set occurs six times in the first eleven measures (see Examples 46).

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49 Fox, resumé.
Example 46. *3 Diversions*, movement 1. mm. 1-2.

Near the end of the first movement, pc set [0,1,4,5], a member of set class (0145), occurs before and after the soprano and baritone saxophones present homorhythmic melodic lines in contrary motion (see Example 47).

Example 47. *3 Diversions*, movement 1. mm. 53-55.
Use of Non-conventional Rhythmic Notation

None

Errata

None known

Extended Techniques/ Performance Considerations

The only extended technique that appears in 3 Diversions is the use of altissimo in a short passage in the third movement. The soprano saxophone must ascend to an $a^\#_{111}$ while the alto saxophone ascends to an $f^\#_{111}$. The lack of other extended techniques makes this an appropriate composition for intermediate college-level saxophone quartets.

**Instrumentation**

Saxophone Quartet (SATB)

**Written Ranges**

Soprano and baritone saxophones:

![Music notation for soprano saxophone]

Alto Saxophone:

![Music notation for alto saxophone]

Tenor Saxophone:

![Music notation for tenor saxophone]

**Duration**

Approximately 15 minutes

**Recordings**

None

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Historical Background

Frederick Fox had served as the composition chairman for the Indiana University School of Music for eight years when he composed *The Avenging Spirit*. During the same year, he also composed *Fantasy* for woodwind quintet and piano.\(^{51}\)

Overview

*The Avenging Spirit* is a one-movement composition which can be divided into four major sections (based primarily on tempos) and a brief coda (see Appendix D for formal schemata). An analysis of the first section reveals that the first three notes serve as the impetus for subsequent material. The first section is based on a three-note motive first stated by the alto saxophone soloistically (see Example 48).


![Example 48](image)

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As the section develops, Fox passes this motive among the other voices of the ensemble at differing pitch levels (see Example 49).

\(^{51}\) Fox, resumé.
Use of Non-conventional Rhythmic Notation

Most of The Avenging Spirit is composed in standard metric notation; however, beginning at measure 115, each voice of the quartet is given a solo notated entirely in non-conventional notation. His notational devices include the previously discussed “as fast as possible” and “accelerando” figures.52 In addition, Fox uses a figure which he labels “fast” according to the information page of the score (see Example 50).

Example 50. The Avenging Spirit. Information page.53

This new54 figure acquires the assumed meaning of being played fast, but not quite “as fast as possible.” Also, for the first time in his compositions for

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52 Refer to Example 3 (page 12) and Example 6 (page 14) for the original discussions of these devices.
53 Fox, The Avenging Spirit, 2.
54 New to the published saxophone compositions, not necessarily new to his entire compositional output.
saxophone, Fox uses quarter rests to denote one second of rest in non-metric solo sections.

**Errata**

None known

**Extended Techniques/ Performance Considerations**

No extended techniques appear in any of the parts. Careful attention to rhythmic subtleties is important, especially beginning at measure 131. In this passage, each member of the quartet is given contrasting subdivisions of the beat on a repeating pitch (see Example 51). The effect is one of a complicated cumulative rhythm which is resolved to unison rhythms in measure 135.

Example 51. *The Avenging Spirit*, mm. 131-133.

A similar passage appears in measures 197-198 (see Examples 52).
During the non-metric solo sections, a brief passage occurs where the soprano and alto saxophones must play in unison as the alto solo transitions to the soprano solo (see Example 53). This is accomplished by careful cueing for each pitch during the durationally-spaced notation. Attention should also be given to performing the “as fast as possible” pitches in exact unison.

Instrumentation

Any solo saxophone

Written Range

\[\text{Written Range}\]

Duration

Approximately 12 minutes

Recordings

None

Historical Background

The piece was written for and dedicated to Eugene Rousseau. Other pieces composed by Fox the same year are Devil’s Tramping Ground for flute,

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55 Fox, Hear Again in Memory. (St. Louis, MO: MMB Music, Inc. 1991), 10.
56 Ibid.
57 Ibid.
obo, clarinet, violin, cello, piano and one percussionist, and *Dark Moons/Bright Shadows* for orchestra (commissioned by the Bloomington Symphony Orchestra).\(^5^8\)

**Overview**

*Hear Again in Memory* is a five-movement composition labeled thusly:

I. Theme: Lento, II. Variation 1: Bird Flight, III. Variation 2: Piper, IV. Variation 3: Cadenza, and V. Coda: Allegro. For the first time in Fox’s published saxophone works, the composer provides an overview of this composition on the last page of the score:

*Hear Again in Memory*, completed in April, 1991, was written for and dedicated to Eugene Rousseau. For solo saxophone, it is meant to be performed with any saxophone. It is in five movements with the overall structure one of developmental variations. The opening movement is an A B A form with A comprised of two hexachords and B being based on a chordal structure. Both concepts generate the pitch character of the subsequent movements. The second movement is an homage to Charlie Parker, the great jazz saxophonist in the 1940s and ‘50s. The melodic shapes are based on the A and B lines from the first movement plus an arpeggio figure from one of Parker’s recorded improvisations (Koko). The third movement is a bluesy slow movement based solely on the hexachords. The cadenza movement is a virtuosic and free flowing display which functions in an improvisational manner. The final movement is the counterpart to the first movement in that it is structurally very controlled and somewhat more complex than the variations.\(^5^9\)

The two hexachords are presented in succession at the beginning of the A section of the first movement (see Example 54). In the example below, the pc sets are based on an alto saxophone’s transpositions. Both hexachords are members of set class (014589).

\(^5^8\) Fox, *resumé*.

\(^5^9\) Fox, *Hear Again in Memory*, pg. 10.
Use of Non-conventional Rhythmic Notation

Fox composed *Hear Again in Memory* using standard metric notation except in the fourth movement “Variation 3: Cadenza.” This movement is composed using Fox’s signature style of non-metric writing: proportionally spaced pitches designated by notes connected by a single beam, “fast” passages connected by double beams, “as fast as possible” and “accelerando” passages denoted as previously discussed. He also continued to use quarter rests to equate to one second of rest as in the solo passages in *The Avenging Spirit*.

**Errata**

None known

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60 See the discussion on page 12.
Extended Techniques/ Performance Considerations

The only extended technique used in this composition is the use of altissimo.

Instrumentation

Alto Saxophone and Piano

Written Range

![](image)

Duration

Approximately 13 minutes

Recordings

None

Historical Background

*When the Thunder Speaks* represents Fox's last composition for saxophone and his last completed composition overall. This was the only composition by Fox during that year. It was commissioned by Thomas Liley.

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62 Fox, resumé.
Overview

*When the Thunder Speaks* is a one-movement composition composed in a sectionalized structure based primarily on tempos (see Appendix D for formal schemata). This composition is reminiscent of *Annexus* in its use of extended piano techniques such as fingertip glissandos, palms on strings, and muted keys. One major distinction between the two saxophone and piano compositions by Fox is that he composed this last work entirely using standard notation.

**Use of Non-conventional Rhythmic Notation**

None

**Errata**

None known

**Extended Techniques/ Performance Considerations**

The saxophone part contains the following extended techniques: a timbral trill (see Example 55), several examples of growling (see Example 56), pitch bending (see Example 57), and slap tonguing (see Example 58).

Example 55. *When the Thunder Speaks*, mm. 32-34.

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This timbral trill can be achieved by alternating the standard fingering for middle b with the low b fingering while voicing in such a way as to produce the first overtone of the low b.

Example 56. *When the Thunder Speaks*, mm. 32-34.

![Saxophone part in written pitch](image)

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*Growling* is accomplished by vocalizing a different pitch while playing the written pitch.

Example 57. *When the Thunder Speaks*, m. 145.

![Saxophone part in written pitch](image)

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Pitch bending can be accomplished in several ways. One way is to change the voicing so as to lower the pitch. Another way is to simply relax the jaw slightly.

Example 58. *When the Thunder Speaks*, m. 249.

![Saxophone part in written pitch](image)

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The technique of producing slap-tonguing is beyond the scope of this document; however, the desired effect is that of an audible percussive “pop” with little or no pitch.
CHAPTER 3
ANALYSIS OF S.A.X. FOR SOLO ALTO SAXOPHONE AND SAXOPHONE QUARTET (1979)

Analysis-Overview

Form and Themes

S.A.X. can be divided into four major sections discerned primarily by changes in tempo. Each of the four large sections can be divided into smaller subsections based on changes in texture, compositional devices employed, and thematic content. The first three measures serve as an introduction, and the last nine measures serve as a coda. Ten transitional passages which often employ unique compositional techniques link subsections and major sections of the composition.

Thematic material is often generated through an additive process, where a motivic element is repeated and extended utilizing similar intervallic content. At times, entire phrases are constructed using specific patterns of repeated intervals. Fox emphasizes the interval classes of 1, 2, 5, and 6 in his construction of motives and themes.

Rhythm and Meter

Except for the non-metric introduction and the recapitulation of this material prior to the coda, the predominant meter is duple and mostly common time; however, Fox freely adds or subtracts beats, often moving from 3/4 to 4/4 to 5/4 to 2/4, most notably in

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63 See also the annotated entry on page 17 of this document.
the slow B section beginning at measure 87. At times, the given metric pulse is obvious, while at other times it is obscured as the result of complex additive rhythms. The solo alto saxophone line is often given material which rhythmically contradicts or “floats above” the accompanying quartet.

*Harmony, Counterpoint and Texture*

Fox’s harmonic language is atonal with no reference to traditional major-minor tonality except in one nostalgic six-bar passage near the end of the piece where Fox briefly incorporates a jazz chord progression. Throughout the rest of the composition, sonorities are based on set classes. The most important set class in this composition is set class (0167). Passages composed in tightly-packed chromatic dissonances contrast with passages in unison or pure open fourths and fifths, providing a great variety of contrast. Contrast is also created through the utilization of almost every possible texture the ensemble provides, from solo passages and duets to complex five-part polyphony.

*Form*

The following diagram offers a complete formal schemata, with the large-scale sections labeled with capital letters A-D, the smaller subsections labeled with the small letters a-j, and the transitional passages labeled as t1 through t10 (see Figure 3).
Figure 3: Formal schemata of S.A.X.

<table>
<thead>
<tr>
<th>Major</th>
<th>Intro</th>
<th>A</th>
<th></th>
<th></th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sections:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tempo:</td>
<td>quarter note = 84-88</td>
<td></td>
<td></td>
<td></td>
<td>quarter note = ca. 60</td>
<td>quarter note = ca. 76</td>
</tr>
<tr>
<td>Sub Sections:</td>
<td>a</td>
<td>b</td>
<td>c</td>
<td>d</td>
<td>Closing</td>
<td>e</td>
</tr>
<tr>
<td>Transitions:</td>
<td>t1</td>
<td>t2</td>
<td>t3</td>
<td>t4</td>
<td>t5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Major</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Intro Recap</th>
<th>Coda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sections:</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tempo:</td>
<td>quarter note = ca. 120</td>
<td></td>
<td></td>
<td></td>
<td>quarter note = 120-126</td>
<td></td>
</tr>
<tr>
<td>Sub Sections:</td>
<td>g</td>
<td>h</td>
<td>i</td>
<td>j</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transitions:</td>
<td>t8</td>
<td>t9</td>
<td>t10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures:</td>
<td>137-149</td>
<td>150-151</td>
<td>151-161</td>
<td>162</td>
<td>163-174</td>
<td>175-190</td>
</tr>
</tbody>
</table>
Analysis

Introduction and transition 1 (mm. 1-3)

The introduction consists of an unmetered solo statement by the alto saxophone soloist over a sustained sonority in the quartet. This sonority consists of the following pitches as designated by the Acoustical Society of America: Eb, A, D, Ab3 (see Example 59).

Example 59: S.A.X. m. 1. Opening sonority. Pc set [2,3,8,9], set class (0167)

This sonority effectively presents important intervallic and harmonic material for the entire composition. The pitch-class (pc) set produced is pc set [D,Eb,Ab,A], or in integer notation, pc set [2,3,8,9]. This pc set belongs to the set class (0167), and due to the importance of this set class in this composition, it is relevant to discuss several
inherent qualities of this set.

Set Class (0167)

Set class (0167) can be viewed as being comprised of two tritone pairs a minor second apart. Using the pitch-class set from the opening sonority as an example [D, Eb, Ab, A], the two tritone pairs are D-Ab and Eb-A, or 2-8 and 3-9. Having symmetrical properties, it is also possible to list the set as [Ab, A, D, Eb]. In other words, pc set [2, 3, 8, 9] belongs to the same set class as pc set [8, 9, 2, 3].

The same pitch-class set can also be viewed as being comprised of two pairs of perfect intervals a minor second apart. Using the same example, the pairs of perfect intervals would be D-A and Eb-Ab, or 2-9 and 3-8. Because of the symmetrical properties discussed above, set class (0167) contains only six pc set members, rather than twenty-four members most sets share. In ascending order using integer notation, the members of this set are as follows: [0, 1, 6, 7], [1, 2, 7, 8], [2, 3, 8, 9], [3, 4, 9, T], [4, 5, T, E], and [5, 6, E, 0]. The next set in this progression would be [6, 7, 0, 1], and it has already been shown to be identical to [0, 1, 6, 7].

The opening sonority of this composition presents the set expanded vertically to Eb2, A2, D3, Ab364 (see Example 5). Reading these pitches in ascending order creates the alternating sequence of a tritone, a perfect fourth, and another tritone. It will be shown that Fox exploits this alternating sequence to create melodic lines.

One other quality of set class (0167) deserving mention is its membership in the octatonic collection. It will be shown that Fox often incorporates the octatonic collection

64 Acoustical Society of America designations.
(or segments of the collection) in his melodic lines.

Closely related set classes which are used by Fox include the subset (016) and the superset (01267).

Opening Melodic Line in Solo Alto Saxophone

An analysis of the unordered pitch-class intervals in the solo line above the opening sonority further establishes the importance of the perfect intervals and the tritone (see Example 60). It has already been shown that the opening sonority presents the alternating vertical intervals of a tritone and a perfect fourth. This alternating sequence will continue to be important in later sections of the piece.

Example 60: S.A.X. m. 1. Opening melodic line in solo alto saxophone, written pitches.

Unordered pitch-class intervals:

![Unordered pitch-class intervals](image)

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The introduction is followed by the first transitional passage (t1), which establishes a sense of pulse for the A section. This brief transition consists of a series of parallel ascending glissandi leading to a series of minor second trills. This is followed by chromatic sixteenth-note quintuplets in contrary motion in the outer voices of the quartet (see Example 61). The pc set produced by each of the principal pitches of the trills is pc set [3,4,9,T]. This pc set is also a member of set class (0167) transposed up a minor
second, or at the level of $T_1$ from the original pc set of [2,3,8,9]. This minor second relationship, along with the minor second trills themselves, marks the first occurrence of interval class 1 (ic 1).

Example 61: S.A.X. m. 2. Transition 1 (t1). Members of set class (0167)

Section A, subsection a (mm. 4-17)

An important element of Fox’s compositional style is the manner in which he creates and sustains melodic, harmonic, rhythmic and textural interest using limited interval class content. The introduction of S.A.X. establishes the importance of interval

---

65 A capital T followed immediately by a subscript number represents a transpositional relationship using the mod 12 system. The mod 12 system relegates all intervals to a number from 0 to 11 based on interval classes. For example: If $x$ were transposed at the level of $T_1$ to produce $y$, then $y$ would be one interval class (ic 1) from $x$. 

---
classes 1, 5 and 6. The first major section of the piece, the A section beginning at measure 4, features a solo line utilizing these intervals exclusively (see Example 62).

The accompaniment is comprised of a minor second trill between the pitch classes of A and Bb (ic 1), integer names 9 and 10, which is passed between different members of the accompanying quartet. The reorchestration of this trill creates a timbral redistribution of the same material as each member of the accompanying quartet begins the trill at the exact point where the previous instrument exits. The continued use of the minor second trill creates a cohesive element between the first transition (t1) and the subsequent a section.

Example 62: S.A.X. mm. 3-8. Beginning of A.
Unordered pitch-class intervals:

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Example 62 (continued)

Unordered pitch-class intervals:

<table>
<thead>
<tr>
<th>Saxophone parts, written pitches</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 5 15 5 6 1 6 1 1 1 5 5 5 16 5 6 1</td>
</tr>
</tbody>
</table>

Continued minor second trills on pitch classes 9 and 10 (A and Bb)

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The first occurrence of the octatonic scale-inspired intervallic sequence\(^{66}\) in his music for saxophone appears in the solo alto saxophone part of S.A.X. at measure 17 (see Example 63).

Example 63. S.A.X. m. 17. First appearance of the O.S.I.S.

interval classes:

| 1 2 1 2 1 2 1 2 1 |

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\(^{66}\) See the discussion on page 11 of this document.
Section A, transition 2 (mm. 17-22)

The second transition (t2) consists of elements from the first transition (t1)—i.e., the glissandi, minor second trills, and the sonority produced by set class (0167) represented by the same two pc sets of [2,3,8, 9] and [3,4,9,T], or [D,Eb,Ab,A] and [Eb,E,A,Bb] (see Example 64). This transition is expanded from one measure (t1) to four measures (t2). The glissandi now occur in contrary motion between member pairs of the quartet, and the order of presentation of the two pc sets is now reversed, with pc set [3,4,9,T] occurring before pc set [2,3,8,9]. Because of this reordering, the relationship between the two sets is now at the level of T_{11}.

Example 64: S.A.X. mm. 18-21. Transition 2. Transpositionally related pairs of set class (0167)

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Section A, subsection b (mm. 23-45)

The b subsection, which begins at measure 23, consists of a repeating and overlapping rhythmic ostinato in the quartet as the accompaniment to the solo line in the alto saxophone (see Figure 4). The repetition of this two-bar pattern creates a palindrome with the given phrase mark in the second measure denoting the exact middle of the mirrored-pattern.

Figure 4. Rhythmic ostinato in B section of S.A.X.

Each of the accompanying voices share the same melodic content—a two-note repeating figure at the interval of a minor second (ic 1) alternating between pitch classes F# and G (6 and 7) (see Example 65). The staggered entrances of the voices of the quartet result in a complex cumulative rhythm of compound and duple patterns. The soprano saxophone begins the pattern in measure 23, followed immediately by the alto saxophone in measure 24. The tenor saxophone then enters in measure 30.

Saxophone parts in written pitches.

The overlapping statements of these three voices combine in such a way as to produce no unison rhythms until the baritone finally enters in measure 33 (see Example 66). This is important to note due to its performance consideration, as these points, along with the strong beats of one and three, serve as anchors to the pulse of the quartet.

Example 66: S.A.X. mm. 33-35. All voices presenting the staggered ostinato.

Unison rhythms occur only after all four voices are stating the ostinato.
The melodic content of the solo alto saxophone part above this accompaniment begins with a repeated six-note quintuplet gesture which utilizes the alternating unordered pitch-class intervals of 5 and 6 exclusively while the figure itself is shifted metrically for each subsequent repetition (see Example 67). It can also be viewed as being comprised of two overlapping occurrences of set class (0167), represented by pc sets [5,6,E,0] and [4,5,T,E] transposed at the level of T_{11}.^{67}

Example 67: S.A.X. mm. 27-29. Solo alto saxophone in written pitches. Overlapping set class (0167) at the level of T_{11}

Unordered pitch-class intervals:

\[
5 \quad 6 \quad 5 \quad 6 \quad 5
\]

\[
[F,F\#,B,C] \quad [E,F,Bb,B] \\
[5,6,E,0] \quad [4,5,T,E]
\]

\[T_{11}\]

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In measure 30, the previous melodic gesture is truncated into a three-note motive (see Example 68). This new idea is created by the ordered pitch intervals of +6 and +5, or an ascending tritone followed by an ascending perfect fourth.

---

^{67} The use of overlapping set members in atonal analysis is usually something to be avoided; however, the importance of set class (0167) in this composition deems this example appropriate.
Example 68: S.A.X. mm. 30-31. Solo alto saxophone in written pitches.

Ordered pitch intervals:

+6 +5

Pc set [D,Eb,A], [2,3,9]
Set class (016)

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The pitches of this motive produce pc set [D,Eb,A], [2,3,9], a member of set class (016). This is important because it is a subset of the original pc set [D,Eb,Ab,A], [2,3,8,9], which is a member of set class (0167). The set class of (016) will recur again in subsequent sections of the piece.

The O.S.I.S. (the octatonic scale-inspired intervallic sequence) is presented again in the solo line beginning in measure 34 (see Example 69).
Example 69: S.A.X. mm. 34-40. O.S.I.S.

Unordered pitch-class intervals:

Section A, transition 3 (mm. 45-49)

The transitional passage (t3) between the a and b subsections of the large-scale section A is comprised of staggered entrances of two motives (see Examples 70a and 70b). The first motive can be described as having the ordered pitch intervals of $+6, +5, -1, +6$. The other motive is comprised of the first five ascending pitches of two different octatonic collections, Oct._0,1 and Oct._2,3. The sustained pitches combine to produce pc set $[F,F\#,B,C]$ or $[5,6,E,0]$ which is another occurrence of set class (0167).
Example 70a: S.A.X. mm. 46-48. Transition 3 (t3). Saxophone parts transposed.

Ordered pitch intervals: +6, +5, -1, +6

Example 70b: S.A.X. mm. 46-48. Transition 3 (t3).

Pc set [5,6,E,0]  Set class (0167)  Oct.2,3

Oct.0,1

86

---

68 Examples 70a and 70b have been transposed to concert pitches to best illustrate the content.
Section A, subsection c (mm. 50-58)

The c section, measures 50-58, contains the first occurrence of homophonic rhythms (see Example 71). The solo alto saxophone is not present until a brief transitional passage beginning in measure 58 leads to the next major section. This section is comprised of planing sonorities of set class (0167) beginning with pc set [5,6,E,0].

Example 71: S.A.X. mm. 50-51. Planing sonorities of set class (0167).

This planing sonority is created by utilizing the same ordered pitch intervals in each voice of the accompanying quartet (see Example 72).
Example 72: S.A.X. mm. 50-51. Planing sonorities created by utilizing the same ordered pitch intervals in each voice.

Ordered pitch intervals:

<table>
<thead>
<tr>
<th>Soprano</th>
<th>Alto</th>
<th>Tenor</th>
<th>Baritone</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>+2</td>
<td>+1</td>
<td>1</td>
</tr>
<tr>
<td>+2</td>
<td>-1</td>
<td>-2</td>
<td>2</td>
</tr>
<tr>
<td>-1</td>
<td>+2</td>
<td>-1</td>
<td>3</td>
</tr>
<tr>
<td>+1</td>
<td>-2</td>
<td>+2</td>
<td>4</td>
</tr>
<tr>
<td>-2</td>
<td>+1</td>
<td>-2</td>
<td>5</td>
</tr>
<tr>
<td>+2</td>
<td>-1</td>
<td>-2</td>
<td>6</td>
</tr>
<tr>
<td>-1</td>
<td>+2</td>
<td>-1</td>
<td>7</td>
</tr>
<tr>
<td>+1</td>
<td>-2</td>
<td>+2</td>
<td>8</td>
</tr>
<tr>
<td>-2</td>
<td>+1</td>
<td>-2</td>
<td>9</td>
</tr>
<tr>
<td>+1</td>
<td>-2</td>
<td>+2</td>
<td>10</td>
</tr>
<tr>
<td>-2</td>
<td>+1</td>
<td>-2</td>
<td>11</td>
</tr>
</tbody>
</table>

Beginning in measure 51, Fox utilizes an interesting compositional device to transition from the vertical sonority of set class (0167) to unison, wherein each voice continues a specific sequence of ordered pitch intervals until reaching the concert pitch of Ab, or pc 8 (see Example 73). These ordered pitch intervals are +1, -2, -1, -2, +1, -2, another occurrence of the octatonic scale-inspired intervallic sequence (O.S.I.S.). After each voice reaches pitch class Ab (or 8), this pitch is repeated until all of the other voices are also on the same pitch. Once this occurs (in measure 54), all members of the accompanying quartet embark on the first fully homophonic and unison passage.
Example 73. S.A.X. mm. 50-55. Transitioning from set class (0167) to unison with O.S.I.S.

Ordered pitch intervals:

- sop.: +1 -2 -1 -2 +1 -2 -2 -1 -2 +1 -2 +1
- alto: +1 -2 -1 -2 +1 -2 -2 -1 -2 +1 -2 +1
- ten: +1 -2 -1 -2 +1 -2 -2 -1 -2 +1 -2 +1
- bari: +1 -2 -1 -2 +1 -2 (Ab) ...

Saxophones in written pitch:

Soprano
Alto
Tenor
Baritone

sop.: -2 -1 -2 +1 -2 -1 -2 -1 -2 (Ab)
alto: -2 -1 (Ab) ...
ten: (Ab cont.)
bari: (Ab cont.)

Begin all voices in unison pitch classes.

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Section A, transition 4 (mm. 58-61)

The solo alto saxophone returns in measure 58 with a brief transitional passage (t4) which leads to the next major section B (see Example 74). This passage continues to utilize the O.S.I.S., in this case represented by the same ordered pitch intervals (+1, -2, -1, -2, +1, -2) from the planing sonorities beginning in measure 50. This pattern is interjected by pitches produced by alternating ic 5 and 6.

Example 74. S.A.X. mm. 58-59. Repeating and alternating ordered pitch intervals 1 and 2, and 5 and 6.

Solo alto saxophone in written pitches

Ordered pitch intervals:

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Section A, subsection d (mm. 62-71)

The next section, subsection d, is primarily a duet between varying members of the ensemble (see Examples 75a-b). The melodic content of the solo line is comprised of small intervals while the accompaniment emphasizes larger intervals. This section also utilizes chromatic pitch sets in relatively small time spans, and is held cohesively together by a recurring melodic idea with the repetitive ordered pitches of +1, -1, -1, which appears four times at different transposition levels.
Example 75a. S.A.X. mm. 62-63.

Ordered pitch intervals:

\[ +1 -2 +2 -3 +2 -1 +3 \]

Written pitches

Solo alto saxophone

Soprano

Alto

Tenor

Baritone

Recurring figure +1, -1, -1...

Ordered pitch intervals:

\[ +6 +5 +5 -1 -6 +11 \]

Example 75b. S.A.X. mm. 62-63. Set class (0123456789T)

Written pitches

Solo alto saxophone

Soprano

Alto

Tenor

Baritone

Pc set [C,C#,D,D#,E,F,F#,G,G#,A,A#] Set class (0123456789T)

The recurring accompanimental gesture of ordered pitch intervals +1, -1, -1 first stated in the soprano saxophone part in measure 63, returns in the soprano part in
measure 66 at the level of $T_5$ from the original occurrence, in the soprano part again in measure 67 at the level of $T_3$ from the original occurrence, and finally in the tenor saxophone part in measure 70 at the level of $T_{10}$ from the original occurrence.

Section A, transition 5 (mm. 72-74)

The brief transitional passage (t5) at mm. 72-74 succinctly summarizes the previous section’s chromaticism before introducing the new set class (01267), a superset of the important set (0167), which is emphasized in the closing section to follow. It begins with a descending and layered figure as the solo alto saxophone sustains the pitch G, or 7 (see Example 76). Each voice then enters an eighth-note apart exactly one half-step lower than the previous voice and sustains until the pc set of $[D\#,E,F,F\#,G]$, or $[3,4,5,6,7]$ (a member of set class (01234)), at the tightest intervallic span is achieved. The intensity is increased by the forte-piano crescendo marking in each voice.

Example 76. S.A.X. m. 72. Set class (01234).
In the following measure, measure 73, the dissonance is temporarily “resolved” to two successive (planed) presentations of set class (01267) represented by pc set [Eb, E, Ab, A, Bb], or [3, 4, 8, 9, T] followed immediately by pc set [E, F, A, Bb, B] or [4, 5, 9, T, E] (see Example 77).

The idea of setting the solo voice (comprised of small intervals) against one other voice in duet-fashion (comprised of larger intervals) introduced in section d, is then briefly restated before the large-scale A section comes to a close with a prolonged closing idea.

Example 77. S.A.X. mm. 73-74. Planning of set class (01267) and restatement of idea from section d.

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Section A, Closing idea (mm. 75-86)

The closing section of A utilizes a repetitive homophonic rhythmic pattern of eighth-notes (with a proceeding minor second upper neighbor grace note) interrupted three times with brief solo statements in the baritone saxophone, tenor saxophone, and soprano saxophone respectively (see Examples 78a-b for the vertical sonorities, and Examples 79a-c for the solo statements).

The vertical sonorities begin with pc set [C, C#, F, F#, G], or [0, 1, 5, 6, 7] a member of set class (01267) in measures 75-76. After each solo statement, that instrument begins to sustain on pitch class F or 5, (with a few rhythmic interruptions). The result is a gradual simplification of the vertical sonorities through set classes (0167), (016), until finally, in measure 84, all voices have reached pitch class F or 5. The section concludes with a written-out rallentando, where the minor second upper neighbor notes are now notated as thirty-second notes.

---

69 For the purposes of analysis, only the principal pitches will be included when designating pc sets and set classes in this section.
Example 78a. S.A.X. mm. 76-78. Closing Section.

Written pitches
Solo alto saxophone
Soprano
Alto
Tenor
Baritone

Pc set \{C,C\#,F,F\#,G\} or \{0,1,5,6,7\}
Set class \(01267\)

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Example 78b. S.A.X. mm. 83-85. Closing Section.

Written pitches
Solo alto saxophone
Soprano
Alto
Tenor
Baritone

Pc set \{C,F,F\#\} or \{0,5,6\}
Set class \(016\)

All voices in unison, begin written-out rallentando

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The first two solo statements utilize the same ordered pitch intervals of -2, +1, -2, -1, -2, +1, -2. This is another example of the O.S.I.S. The baritone saxophone solo begins in measure 77 on the pitch class Ab or 8, and repeats until reaching pitch class F or 5. The tenor saxophone solo begins in measure 80 on pitch class Gb or 6, and reaches pitch class F or 5 without repeating the sequence. In the final solo statement the soprano saxophone begins in measure 83 on pitch class C or 0, and utilizes an exact alternation of interval classes 5 and 6.

Example 79a. S.A.X. m. 77. Closing Section. Baritone solo

Example 79b. S.A.X. m. 80. Closing Section. Tenor solo
An interesting comparison of these solo statements can be made by examining the alto saxophone’s solo line in measures 58-59 (see Example 74, page 78). In both instances, Fox created melodic lines by alternating similar intervallic sequences.

Section B, subsection e (mm. 87-110)

The B section of S.A.X. effectively serves as the slow second movement of the quintet, where the harmonic vocabulary is primarily comprised of interval class 5. The two lowest voices of the accompanying quartet, the baritone and tenor saxophones, are paired together alternating with the paired grouping of the two upper voices of the quartet, the alto and soprano saxophones (see Example 80). The two pairs only overlap briefly two times, as one pair concludes a phrase and the other pair begins a new one. When this occurs, the set class is always (0257), or two sets of perfect fourths one whole-step apart. Over this two-part accompaniment, the solo alto saxophone presents phrases which span the changes in texture created as the two pair trade-off.
The total number of interval classes created by the two voices in each pair is shown in the chart below (see Figure 5). It is clear that the primary interval class is ic 5, or perfect fourths and fifths. The voices in each pair primarily move in homophonic rhythm; however, occasionally one voice remains constant while the other voice ascends or descends by step to alternate from a perfect fourth to a perfect fifth or vice versa. The performance markings of “n.v.” (no vibrato) allows the performers to create pure open fourths and fifths. In contrast, the solo alto saxophone is required to sustain the ends of its phrases with “slow, wide vibrato” as marked in the score with long wavy lines.
Figure 5. Interval class occurrences between the accompanimental pairs, mm. 87-110

<table>
<thead>
<tr>
<th>Interval classes</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of occurrences</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>24</td>
<td>1</td>
</tr>
</tbody>
</table>

The previously discussed musical gesture coined by this author as the “Fox sigh” occurs for the first time in any of his compositions for saxophone in measure 108 (see Example 81).⁷⁰

Example 81. S.A.X. m. 108. The first appearance of the so-called “Fox sigh” gesture.

Section B, transition 6 (mm. 110-115)

The transitional passage (t6) between the B section and the subsequent C section begins in measure 110 as the accompanimental pairs join to produce four-part harmony once again (see Example 82a-b). The important vertical sonority of set class (0167) is realized again through voice-leading in measure 110 as the upper two voices descend in step-wise motion, creating a smooth transition from pc set [Eb,F,Bb] or [3,5,T], a member of set class (027) finally reaching pc set [E,F,Bb,B] or [4,5,T,E], the

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⁷⁰ See the discussion on page 10 of this document.
important set class (0167) at the downbeat of measure 111.

This brief transitional passage concludes as the accompanying quartet maintains set class (0167) through planing as all voices move in the familiar pattern of the ordered pitch intervals -2, -1, -2, +1, followed by -1, -2, -1, +2 —octatonic scale-inspired intervallic sequence. In between these two statements by the quartet, the solo alto saxophone presents three phrases based on the same set class (0167), at the same pitch level (or T₀) as the final set in each statement by the quartet. Each of these three phrases also ends with the “Fox sigh.”

Example 82a. S.A.X. mm. 110-112. Returning to set class (0167).
Example 82b. S.A.X. mm. 113-114. Set class (0167) and “Fox sighs”

Section C, subsection f (mm. 116-132)

The C section is characterized by a persistent ostinato of eight pitches which serve as the accompaniment to the solo alto saxophone. The ostinato is first alternated between the baritone and tenor saxophones (see Example 83). The ostinato is constructed of the ordered pitch intervals +1, -2, +6, +5, -1, +2, -5, -6—once again reinforcing the established important interval classes 1, 2, 5, and 6, and is comprised of the pitch classes of E-F-Eb-A-D-Db-Eb-Bb or 4-5-3-9-2 -1- 3-T. After seven repetitions, the alto and tenor saxophones alternate with the soprano and baritone saxophones as both pairs present the ostinato in octaves beginning in measure 123.
Example 83. S.A.X. mm. 116-117. Ostinato.

Ordered pitch intervals:

\[ +1 -2 +6 +5 -1 +2 -5 -6 \]

Written pitches

\[ +1 -2 +6 +5 -1 +2 -5 -6 \]

Pitch Classes:

\[ E-F-Eb-A-D-Db-Eb-Bb-(E) \]

4-5- 3- 9-2 -1- 3- 10- (4)

E-F-Eb-A-D-Db-Eb-Bb-(E)

4-5- 3- 9- 2- 1- 3- 10- (4)

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Beginning in measure 128 the ostinato is presented in diminution, progressing from eighth notes, through eighth note triplets, sixteenth notes, and finally sixteenth note sextuplets (see Examples 84a-b). As the note values decrease, the texture of the accompaniment increases from pairs of voices, through a trio of voices, to finally the full quartet—always in homophonic rhythms with the persistent ostinato in unisons and octaves. A brief closing gesture occurs in measure 132 where all voices repeat the first three pitches of the ostinato twice.
Example 84a. S.A.X. mm. 127-128. Ostinato in increasing diminution.

Written pitches

Soprano
Alto
Tenor
Baritone


Repetitions of the ostinato.

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Example 84b. S.A.X. mm. 131-132. Ostinato in increasing diminution.

Written pitches

Soprano
Alto
Tenor
Baritone

Repetitions of the ostinato.
Closing gesture.

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The solo alto saxophone line above this ostinato can be divided into two parts. The first part consists of three phrases which begin in measures 117, 121, and 123. The first pitch in the solo line, (pitch class D or 2) serves as an anacrusis to the first
motive. The first two phrases begin with a four-note series (or motive) which can be described as having the ordered pitch intervals of -2, +1, -2, another occurrence of the O.S.I.S. It is followed immediately by its repetition transposed down a tritone (ic 6) and inverted (see Example 85). This melodic idea formed by the motive and its transposed and inverted version is then extended to form increasingly longer phrases utilizing logically repeating patterns of intervals 1, 5, and 6. The first phrase is extended by alternating intervals 6 and 1.

Example 85. S.A.X. mm. 118-120.

Ordered pitch intervals:  -2 +1 -2  

Extension with interval classes:  6, 1, 6, 1, 6

Transposed down a tritone and inverted

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The second phrase, beginning in measure 121, repeats the previous phrase and is extended by alternating intervals 6 and 5 (see Example 86). The last two pitch classes of the first extension are repeated to begin the next extension.
Example 86. S.A.X. mm. 122-123.

Extension with interval classes: 6, 5, 6, 5, 6, 5

Written pitches
Solo alto saxophone
Repeated pitch classes

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Beginning in measure 123, the four-note motive is truncated by omitting the last pitch. This new three-note motive is then transposed and inverted in the same manner to begin the third phrase. After repeating the previous extension, this phrase is extended further by alternating intervals 5 and 1 (see Example 87a-b). The series of extensions are set apart from the motive and its transposed and inverted form by an accelerando figure on pitch class D or 2).

Example 87a. S.A.X. m. 125.

Extension with interval classes: 1, 5, 1, 5

Written pitches
Solo alto saxophone
Repeated pitches

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Example 87b. S.A.X. mm 123-125. Solo alto saxophone, written pitches.

Series of extensions with interval classes: 6 1 6 1 6 5 6 5 6 5 6 1 5 1 5

Truncated motive Accelerando figure transposed and inverted

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The second part of the solo line in this section begins with the motive from measure 118 followed by its transposed and inverted version, both transposed up a major ninth from its first occurrence (see Example 88).

Example 88. S.A.X. m 126.

Original motive from measure 118 transposed down a tritone and inverted

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As the accompanying ostinato continues to repeat in diminution, the large-scale B section concludes as the solo alto saxophone line also transitions from thirty-second note sextuplets to thirty-second notes (see Example 89). This phrase begins similarly to the phrase in measure 123 with a truncated version of the motive (produced again by omitting the fourth pitch), followed by its repetition transposed down a tritone and
inverted. The process of repeating melodic lines while adding extensions to the phrase also continues. These extensions are created by alternating the unordered pitch intervals of 1 and 2—one of the inherent elements of this three-note motive and yet another occurrence of the O.S.I.S.

Example 89. S.A.X. mm 127-128. Solo saxophone, written pitches.

Unordered pitch intervals:

Extensions: 2 1 2 1 2 1 2 1 2 1 2 1 2 1

Three-note motive transposed down a tritone and inverted.

Repeated pitches before extensions

This process continues until a closing gesture occurs in measure 132 that resembles the closing gesture from measure 58 (see Examples 90a-b).
Example 90a. S.A.X. m 58. Closing gesture.

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Example 90b. S.A.X. m132 . Closing gesture.

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Section C, transition 7 (mm. 133-136)

A brief transitional section (t7) linking the C section with the subsequent D section occurs in measures 133-136 (see Example 91). The solo saxophone begins the transition with a descending and accelerating melodic line which is comprised of three adjacent octatonic scales.

Example 91. S.A.X. m 133. Transition 7 (t7). Three adjacent octatonic scales.

The solo alto saxophone then establishes the pulse for the final large-scale D section with the new tempo of quarter-note = 120 beginning in measure 134 (see Example 92), followed by a similar gesture in the baritone saxophone. The two ideas in succession outline a descending chromatic pattern from the pitch classes of Eb or 3 down to Db or 1. If all of these pitches are considered, the O.S.I.S. is apparent.
Section D, subsection g (mm. 137-149)

The D section serves as the final and fastest movement of the composition. Dramatic intensity is established immediately and maintained throughout the section. Fox utilizes many motivic and textural ideas first introduced in earlier sections, and introduces a closing idea that binds the section together. A brief recapitulation of the solo statement in the introduction leads to an even faster, albeit brief coda which features an important closing idea first presented in measure 140.

The D section begins as the soprano, alto and tenor saxophones of the accompanying quartet each present the repeating and tightly-packed chromatic pitch line of Db-C-Db-D (ordered pitch intervals -1, +1, +1) in contrasting and layered rhythms (see Example 93). The soprano saxophone presents the pitch-line in a
repeated gesture notated “fast-as-possible,” the alto saxophone presents the pitch-line in sixteenth notes, and the tenor saxophone presents the pitch-line in triplets. This motive is an exact inversion of an accompanimental gesture first appearing in measure 63 (see example 75a on page 79.

Example 93. S.A.X. mm 137-138.

The solo alto saxophone enters again in measure 139 with a phrase beginning with another example of the O.S.I.S, presenting the chromatic pc set [C,C#,D,D#,E,F,F#,G,G#,A], or [0,1,2,3,4,5,6,7,8,9], a member of set class (0123456789), within two and a half beats (see Example 94). The crescendo from piano to forte firmly establishes the figure appearing at the downbeat of measure 140 as the previously mentioned important closing idea which recurs frequently and in various guises at different pitch levels throughout the remainder of the composition. It can be described most succinctly as being a repeated rhythmic figure which emphasizes a repeated pitch by a recurring lower neighbor note a half step below.
Example 94. S.A.X. mm. 139-140.

Unordered pitch-class intervals:

Written pitches, Solo alto saxophone

Pc set [C,C#,D,D#,E,F,F#,G,G#,A] Closing idea
Set class (0123456789)

The composition’s most important pc set [D,Eb,Ab,A], or [2,3,8,9], a member of set class (0167), returns in measure 143 (see Example 95). The performance technique of “slow and wide vibrato,” first introduced in measure 35 also returns briefly beginning in measure 142 as the inner voices of the quartet present the pc set [Db,Gb,G], [1,6,7]-- a member of set class (016). The octatonic scale returns in the solo alto saxophone line in measure 143.
Example 95. S.A.X. mm. 142-143. Return of set classes (016), (0167), and the octatonic collection

Using a technique reminiscent of measures 4-15, Fox once again employs the technique of timbral redistribution, as the pitch line Ab-G-Ab-A, marked to be played "as fast as possible" is passed in succession between the tenor, alto and soprano saxophones as the accompaniment to the solo line. This pitch line is now transposed up a perfect fourth, or at the level of $T_5$ from its first appearance in measure 137 (see Examples 93 and 96). The solo line at this point continues to be constructed entirely from the $\text{OCT}_{0,1}$ collection.
The closing idea, first appearing in measure 140, returns in measures 147, 155, 178 and again in the coda in measure 198. Its second appearance (measure 147) is now transposed up a major third, and is extended into a longer phrase by introducing an upper neighbor note (see Example 97).
Section D, transition 8, (mm. 150-151)

A brief transition (t8) utilizing transposed and adjacent versions of the pitch line from measure 137 occurs in measures 150-152 (see Example 98). Here, the pitch line is transposed up a minor third each time, or at the level of $T_3$, outlining the diminished seventh chord Ab-B-D-F. The ordered pitch intervals remain constant (-1, +1, +1).

Example 98. S.A.X. mm. 150-152. Transition 8 (t8).

Section D, subsection h (mm. 151-161)

Subsection h, beginning in measure 151, presents a superset of the composition’s first important pc set. As discussed on page 64, the first sonority in the accompanying quartet (presented in measure 1 of the composition) is pc set $[2,3,8,9]$.
[D, Eb, Ab, A], which is a member of set class (0167). The pc set found in measure 152 is [C#, D, Eb, Ab] or [1, 2, 3, 8], a member of set class (0127); however, once the alto saxophone enters and emphasizes the pitch class A, or 9, the new pc set of [1, 2, 3, 8, 9] is formed. This pc set is a member of set class (01267), a superset of pc (0167) (see Example 99). Intensity is established and maintained through the use of “slow and wide vibrato” in the accompanying inner voices of the quintet as well as by periodic eighth-note interjections by the baritone saxophone through measure 160.

Example 99. S.A.X. mm. 152-153. Subsection h. Superset (01267)

The solo alto saxophone then develops the closing idea (first presented in measure 140) by systematically expanding the upper and lower neighboring intervals around pitch class A, (or 9) from minor seconds (ic 1) to the tritone (ic 6) (see Example 100).
Example 100. S.A.X. mm. 155-157. Expanding upper and lower neighboring intervals.

After finally breaking away from the pitch A, or 9, the solo alto saxophone presents a melodic line comprised almost entirely of the O.S.I.S. (see Example 101).

Example 101. S.A.X. mm. 158-161. O.S.I.S. in the solo alto saxophone line.

Section D, transition 9, (mm. 162)

A brief transition (t9) linking subsection h with subsection i occurs in measure 162 as the accompanying quartet presents octatonic scales (see Example 102). The soprano saxophone’s ascending line presents the entire Oct \(_{1,2}\) collection, while the baritone saxophone’s descending line presents the entire Oct \(_{0,1}\) collection. The alto
saxophone ascends for two beats in unison with the soprano saxophone before
descending in unison for two beats with the baritone saxophone. The tenor saxophone
descends for two beats in unison with the baritone saxophone before ascending for two
beats in unison with the soprano saxophone. The \textit{fp crescendo} to \textit{ff} markings in the
accompanying quartet, as well as the clear change in texture, effectively establish the
downbeat of measure 163 as a new section.

Example 102. S.A.X. mm. 162. Octatonic scales in brief transition (t9).

\textit{Section D, subsection i, (mm. 163-174)}

The accompanimental material given to the quartet in this section is based on
two ideas—a timbral redistribution and layering of the chromatic figure first presented by
the alto saxophone on beats one and two of measure 163, and octatonic scales in
contrary motion first presented in the transitional passage (t9) in measure 162 (see
Examples 103a and 103b). The chromatic figure is often fragmented and repeated by
various voices.

Example 103a. S.A.X. mm. 163. Chromatic figure in accompaniment.

Timbral redistribution of accompanimental chromatic figure.

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Example 103b. S.A.X. mm. 171-172. Repeated fragment of chromatic figure and octatonic scales in contrary motion.

The intervallic content of the solo line consists almost entirely of the O.S./S. from measure 164-174; however, frequent octave displacement obscures the pattern (see Example 104).
Example 104. S.A.X. mm. 164-174. Octatonic Scale-Inspired Intervallic Sequence

Written pitches
Solo alto saxophone

Unordered pitch class intervals:

1 2

1 2 1 2 1 2 1

1 2 1 2 1

1 2 1 2 1

(7) 1 2 1 2 1 2 1 2 1 (1) 2 1 2 1

2 1 2 1 2 1

Section D, subsection j, (mm. 175-191)

The beginning of subsection j marks a return to set class (0167) represented by pc set [1,2,7,8] (see Example 105). This pc set, always presented in eighth-notes in the quartet in this section, occurs twenty-one times between measure 175 and 189 at various dynamic levels and on shifting beats of the measures. The accompanying
quartet is given homorhythmic material throughout this entire section.

Example 105. S.A.X. m. 175. Return of set class (0167).

The symmetrical construction of this accompaniment creates a repeating pattern of vertical sonorities consisting of members of set class (0167) and set class (0369)--or a diminished seventh chord (see Example 106a-b).
Example 106a. S.A.X. mm. 177. Repeating pattern of vertical sonorities.

Example 106b. S.A.X. mm. 178. Repeating pattern of vertical sonorities.
The solo alto saxophone’s line above this accompaniment is reminiscent of the closing gesture beginning in measure 145 (see Example 97, page 92 and Example 107). Both figures are based on an upper and lower neighbor tone to a repeated pitch.


Beginning at measure 185 the solo voice joins the quartet in five-part homorhythmic writing as the familiar set class of (0167) is expanded to the superset class (01267) again (see Example 108).

Example 108. S.A.X. mm. 185. Return of superset (01267).
The transitional material (t10) from measures 191-196 contains perhaps the only tonally centered phrase in all of Fox’s music for saxophone (see Example 109). As previously discussed, Fox began his career as a jazz saxophonist and jazz arranger before shifting his focus to composition. This transitional material outlines the following jazz chord progression: \( \text{Db}^7 \ / \ G7/D \quad \text{F-9} \quad \text{Bb}_{7}^{#5} \ / \ \text{EbMaj7} \quad \text{Ab}_{13}^{\text{sus4}} \ / \ G9 \quad \text{Gb9} \quad \text{F}^9_{\text{sus4}} \quad \text{Gb-9} \quad \text{F}_{7}^{#9} \ / \ \text{BbMaj9} \quad \text{Db}_{13}^{b5} \quad \text{GbMaj9} \ / \ \text{F}_{7}^{#9} \ #5 \ #5 \).

The tonal centers in this progression are Eb major, as tonicized by the II V progression preceding the downbeat of measure 193, Bb major as tonicized by the altered dominant chord preceding the first chord in measure 194, and (briefly) Gb major as tonicized by the half-note altered dominant chord on beat two of measure 195. As could be expected, Fox never resolves the final altered dominant chord in measure 196 to the expected resolution of Bb.


\[ \text{Db}^7 \ / \ G7/D \quad \text{F-9} \quad \text{Bb}_{7}^{#5} \ / \ \text{EbMaj7} \quad \text{Ab}_{13}^{\text{sus4}} \ / \ G9 \quad \text{Gb9} \quad \text{F}^9_{\text{sus4}} \quad \text{Gb-9} \quad \text{F}_{7}^{#9} \ / \ \text{BbMaj9} \quad \text{Db}_{13}^{b5} \quad \text{GbMaj9} \ / \ \text{F}_{7}^{#9} \ #5 \ #5 \]

\[71\] Refer to the Biographical Sketch of the composer on page 6 of this document.
The introductory material is recapitulated in measure 197 as the solo alto saxophone presents material that is almost identical to the opening statement in measure one (see Examples 60 and 110). Both begin with an accelerando figure on a repeated pitch followed by a series of glissandi and ascending patterns based on interval classes 5 and 6.

Example 110. S.A.X. mm. 197. Recapitulation of Introductory Material.

![Written pitches]

Solo alto saxophone

Interval classes: 6 5 4 6 5 6 1 6 5 etc.

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Coda (mm. 198-206)

The coda of S.A.X. begins with a final statement of the previously discussed closing idea (see Examples 97, 107, and 111). This time, each voice enters in staggered fashion producing a progression from a solo line, interval class 5 (or fourths) between the alto and soprano, set classes (016), (0156), and finally (01267). This succinctly summarizes some of the most important intervals and sonorities in the composition.\(^7\)

\(^7\) The analysis in example 111 only refers to the principal pitches, not the upper and lower neighbor notes.
The last section of the coda features the bottom three voices of the ensemble presenting a repeating and descending octatonic scale (Oct_{0,1}), first in exact unison (see Example 112), then in overlapping canonic statements utilizing the rhythmic pattern first appearing in section A, subsection b at measure 23 (see Examples 65 and 113).
Example 112. S.A.X. mm. 201-202. Descending octatonic scales.

![Unison fragments of Oct_{0,1}](image)

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Example 113. S.A.X. mm. 203-204. Descending octatonic scales (Oct_{0,1}) in canon.

![Written pitches](image)

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The last statement by the solo saxophone in measure 205 is comprised of an accelerando figure utilizing the O.S.I.S. The line descends to finally reach and release the already sustained pitch of Db, or 1, with the quartet at the dynamic level of *fortissimo* (see Example 114).
Example 114. S.A.X. mm. 205. One last statement of the Octatonic Scale-inspired Intervalic Sequence

Unordered pc intervals: 1 2 1 2 1 2 1 2 1 2 1 2 1 1 2 1 2 1 2 1

Written pitches

Solo alto
Soprano
Alto
Tenor
Baritone

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CHAPTER 4
SUMMARY

The eight compositions for saxophone by Frederick Fox represent a unique and substantial contribution to the contemporary literature of the instrument. In a pedagogical sense, his music offers serious students of the saxophone a means of introduction to contemporary extended techniques along with a system of non-conventional notation which is rare in the literature. The extended techniques are never the driving force of the compositions, but are instead used to create interesting timbres and effects which add to the emotional character of the passage in which they occur. Fox’s use of the altissimo register is included as one of these techniques to demonstrate the general trend of increasing frequency of occurrence and an expanded upper range during the nineteen years spanning his first and last composition for saxophone.

Fox’s non-conventional notational system allows the saxophonist (and pianist in *Annexus*) much freedom in interpretation and imbues the compositions in which they occur with an element of improvisation. Interestingly, Fox’s inclusion of extended techniques for the saxophonist gradually increased as the use of his system of non-conventional notation decreased. While *Annexus* was composed utilizing non-conventional notation entirely, his later works relegated this compositional technique to cadenzas and solo passages in works written predominantly in traditional rhythmic notation.

Fox’s saxophone music is unquestionably atonal, as he composed with set
classes and intervallic sequences without regard to traditional major-minor tonality.\textsuperscript{73}

Set classes range from tightly packed chromatic sets to sets based on fourths, such as set classes (0167)\textsuperscript{74} and (014589)\textsuperscript{75}. Melodic and harmonic material is often based on octatonic scale collections. This includes the author-coined \textit{octatonic scale-inspired intervallic sequence}, where the composer creates melodic material by alternating the interval classes of 1 and 2, changing direction often to avoid emphasizing one octatonic collection over another.\textsuperscript{76}

Fox composed in sectionalized structures, wherein specific compositional techniques and textures define the separation of large-scale sections and smaller subsections. Tempo changes often delineate large-scale sections, and transitional passages also often serve the role of connecting one section to the next.

\textit{Suggestions for Further Study}

As previously discussed, Fox began his career as a jazz saxophonist and arranger, and his compositional style is undoubtedly influenced by this early training. An in-depth examination of specific jazz influences and references would be one such suggestion for further study. For example, in the opinion of this author, the saxophone quartets at times represent four-part saxophone writing in the style of a sort of atonal version of the some of the great arrangers. A direct comparison of specific passages

\textsuperscript{73} The only exception to this is the previously discussed six-measure jazz chord progression in S.A.X. (see the discussion on page 101).

\textsuperscript{74} Set class (0167) is structurally important in S.A.X. (see the discussion on page 60).

\textsuperscript{75} Set class (014589) is structurally important in \textit{Hear Again in Memory} (see the discussion on page 52).

\textsuperscript{76} Fox's musical language also includes the author-coined Fox \textit{sigh} (see the discussion on page 10). These two elements occur frequently enough in his compositions to help define his signature musical language.
from the quartets with saxophone soli writing by such jazz arrangers as Don Redman, Billy Strayhorn, Bob Brookmeyer, and Jim McNeely (for example) would be interesting.

Fox dedicated his career not only to composition, but also to teaching. One other suggestion that comes to mind is an examination into some of the “threads” of compositional style that might form some sort of link between his own teachers (Bernhard Heiden is of special interest to saxophonists), through his music, and on to some of his own numerous students of composition (such as James Aikman and David Dzubay, each of which have composed important works for the genre).
APPENDIX A

FORMS OF SELECTED COMPOSITIONS
See page 78 for the form of S.A.X.

**Annexus**

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**Visitations**, First movement.

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⁷⁷The piece begins on page 3 of the published score, after the title and information pages.

⁷⁸The piece begins on page 3 of the published score, after the title and information pages.
**Visitations, Third movement.**

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(after 4 sec. rest in 2\textsuperscript{nd} saxophone)  
(at start of 3/4 time)
### Shaking the Pumpkin

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<th>j</th>
<th>k</th>
<th>l</th>
<th>m</th>
<th>Coda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub sections:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>n</td>
</tr>
<tr>
<td>mm.</td>
<td>221-239</td>
<td>240-253</td>
<td>254-272</td>
<td>273-294</td>
<td>295-306 (end)</td>
</tr>
<tr>
<td>tempo</td>
<td>( \frac{\dot{\text{r}}}{4} \approx \text{ca.} 63 )</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3 Diversions, I. Moderato

Major sections:

| A | B | C |

Subsections:

| a | b | c | trans. | d | e | trans. | f | trans. | g (b¹) |


3 Diversions, II. Andante

Major sections:

| A | B | C |

Subsections:

| a | b | c | d | e | f |

tempos: \( \text{q} = \text{ca.66} \) \( \text{q} = \text{ca.76} \) \( \text{q} = \text{ca.66-69} \) \( \text{q} = \text{ca.66} \)

Measures: 1-13 14-25 26-42 43-51 52-60 60-68 (end)

3 Diversions, III. Allegro

Major sections:

| A | A¹ | B | B¹ | C | C¹ |


Major sections:

| C² | B² | C³ | B³ | Coda |

| trans. | trans. | trans. |

### The Avenging Spirit

<table>
<thead>
<tr>
<th>Major sections:</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Coda</th>
</tr>
</thead>
</table>

### When the Thunder Speaks

<table>
<thead>
<tr>
<th>Major sections:</th>
<th>Intro</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Coda</th>
</tr>
</thead>
</table>
APPENDIX B

COMPREHENSIVE LISTING OF COMPOSITIONS\textsuperscript{79}

\footnotesize\textsuperscript{79} Fox, resumé to author, Feb. 7, 2008.
Publishers:  
(a - seesaw Music, Inc., New York, NY  
(b – MMB Music, Inc., St. Louis, MO  
(c – Dorn Music, Inc., Medford, MA  
(d – E.C. Schirmer, Inc., Boston, MA  
(e – Schmitt, Hall & McCreary, Inc., Minneapolis, MN  
(f – Contemporary Music Projects, Washington, D.C.

1966-68
A Stone, A Leaf, An Unfound Door (Thomas Wolfe) (a) 
soprano, clarinet, 1 percussionist, chorus

The Crystal (George Barker) SATB (a)

BEC-1 wind ensemble and percussion (a)  
BEC-2 woodwind quintet  
BEC-3 two flutes (a)  
BEC-4 flute, double bass, percussion (1) (a)  
BEC-5 twelve solo voices or instruments (a)  
BEC-6 five celli (a)  
BEC-7 clarinet, cello, harp  
BEC-8 brass quintet  
BEC-9 two trumpets (a)  
BEC-10 chamber orchestra (10)

1969
The Descent (W.C. Williams) SATB, piano, percussion (2) (a)  
Quantic woodwind quintet

1970
Variations violin, cello, piano (a)  
Ad Rem guitar (a)

1971
Concerto violin and orchestra

1972
Matrix cello, strings and percussion (a)  
Ternion oboe and orchestra (a)  
Variable 1 violin and piano (a)

1973
Variables 2 solo flute (a)  
Variables 3 flute, clarinet, horn, violin, cello, piano (a)  
Variables 4 solo clarinet (a)
<table>
<thead>
<tr>
<th>Year</th>
<th>Work</th>
<th>Ensemble/Performers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>Variables 5</td>
<td>orchestra (a) violin, piano, percussion (2) (a)</td>
</tr>
<tr>
<td></td>
<td>Quartet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connex</td>
<td>brass ensemble (a)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>Variables 6</td>
<td>flute, clarinet, violin, cello, percussion (1) (a)</td>
</tr>
<tr>
<td></td>
<td>Tria</td>
<td>flute, piano, percussion (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1976</td>
<td><em>Time Excursions</em></td>
<td>soprano, speaker, flute, clarinet, violin, cello, piano, percussion (2) (a)</td>
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<tr>
<td></td>
<td></td>
<td>NEA Grant</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>1977</td>
<td><em>Beyond Winterlock</em></td>
<td>orchestra (a)</td>
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<tr>
<td>1978</td>
<td><em>Ambient Shadows</em></td>
<td>flute/alto flute, clarinet, trombone, violin, viola, cello, percussion (1) (b)</td>
</tr>
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<tr>
<td>1979</td>
<td><em>Night Ceremonies</em></td>
<td>orchestra (b)</td>
</tr>
<tr>
<td></td>
<td>S.A.X.</td>
<td>solo alto saxophone and saxophone quartet (c)</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td>1980</td>
<td>ballet</td>
<td>(untitled, incomplete) NEA Grant</td>
</tr>
<tr>
<td></td>
<td>Nilrem’s Odyssey</td>
<td>baritone/speaker, SATB</td>
</tr>
<tr>
<td></td>
<td>Annexus</td>
<td>alto saxophone and prepared piano (c)</td>
</tr>
<tr>
<td></td>
<td><em>Sonaspheres 1</em></td>
<td>flute/alto, flute/pic., clarinet, trumpet, trombone, violin, viola, cello, piano,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>percussion (2) (b)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1981</td>
<td><em>Tracings</em></td>
<td>orchestra (b)</td>
</tr>
<tr>
<td></td>
<td><em>A Threat</em> (Curtis Fox)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>soprano and viola</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>1982</td>
<td><em>Bren</em></td>
<td>brass ensemble (b)</td>
</tr>
<tr>
<td></td>
<td>Gaber!</td>
<td>Percussion (6) (b)</td>
</tr>
<tr>
<td></td>
<td>Visitations</td>
<td>saxophones (2)</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td>1983</td>
<td><em>Nexus (Sonaspheres 2)</em></td>
<td>flute/alto, flute/pic, viola, cello, piano (b)</td>
</tr>
<tr>
<td></td>
<td><em>Ensphere (Sonaspheres 3)</em></td>
<td>flute, clarinet, violin, cello, piano, percussion (1) (b)</td>
</tr>
<tr>
<td></td>
<td><em>Tromper (Sonaspheres 4)</em></td>
<td>trumpet, trombone, percussion (1)</td>
</tr>
<tr>
<td></td>
<td><em>Sonaspheres 5</em></td>
<td>flute/alto, flute/pic., clarinet, trumpet, trombone, violin,</td>
</tr>
</tbody>
</table>
viola, cello, piano, percussion (2) (b)
(Sonospheres 2-5 were composed with support from a NEA Grant)

1984
Januaries orchestra (b)
Dawnen Grey string quartet (b)
Fanfare '84 trumpets (5), horns (4), trombones (4), tuba
(commissioned by the International Brass Congress) (b)
Fanfare orchestra, winds and percussion (b)

1985
Witches Waltz young violinists
Now and Then chamber orchestra (b)
(commissioned by the Iceland Chamber Orchestra)
Vis-a-vis horn and string quartet (b)
(commissioned by Meir Rimon)

1986
In the Elsewhere orchestra (b)
Shaking the Pumpkin alto and soprano saxophones (1), piano, percussion (2) (c)
(commissioned by a consortium funded by the NEA)

1987
3 Diversions saxophone quartet (c)
Silver Skeins flute choir (9) (b)
Polarities symphonic band
Commissioned by Ray Cramer and the Indiana University Bands
Upon the Reedy Stream oboe and string quartet (b)

1988
Nightscenes strings, harp, piano/celeste, percussion (5) (b)
Time Messages brass quintet (b)
Flight of Fantasy cello and piano
Auras flute, clarinet, cello, piano, percussion (1) (b)
(commissioned by Hayward, CA Chamber Players)

1989
The Avenging Spirit saxophone quartet (c)
Fantasy woodwind quintet and piano

1990
Mystic Dances chamber orchestra

1991
Devil's Tramping Ground flute, oboe, clarinet, violin, cello, piano, percussion (1) (b
Hear Again in Memory  
solo saxophone (b)

Dark Moons/Bright Shadows  
orchestra (b)
(commissioned by the Bloomington Symphony Orchestra)

1992
Echo Blues  
orchestra (b)

Sing Down the Moon  
clarinet and piano

1993
Echoes and Shadows  
v violin and piano

Fantasy  
viola and piano

Time Weaving  
clarinet trio (Eb, Bb, bass clar.) (b)

3 Epigrams  
concert band (high school)

1994
Kokopelli  
flute and piano

Dreamcatcher  
flute, oboe, clarinet, horn, trumpet, trombone, violin,
cello, double bass, piano, percussion (2) (b)
(composed in celebration of Indiana University’s 175th year)

1995
Impressions  
orchestra (b)

Five Mementos  
trumpet and piano

1996
Song (Curtis Fox)  
soprano, cello, harp, percussion (2)

Four Times Round  
symphonic band (b)
(dedicated to Ray Cramer and the Indiana University
Symphonic Band, commemorating the I.U.
Department of Bands’ Centennial year, 1896-1996)

Blind Time  
orchestral brass (4,4,3,1) and percussion (2)

1998
When the Thunder Speaks  
alto saxophone and piano (c)
APPENDIX C

DISCOGRAPHY OF RECORDED SAXOPHONE COMPOSITIONS
ANNEXUS


SHAKING THE PUMPKIN


S.A.X.


REFERENCE LIST

Scores


Books


Sound Recordings

