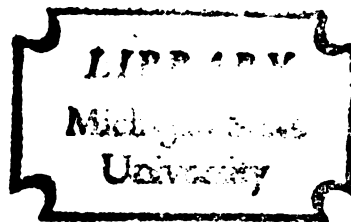


A SURVEY OF FOUR CLARINET COMPOSITIONS BY
WILLIAM O. SMITH: AS AN INTRODUCTORY SOURCE
OF CONTEMPORARY CLARINET PERFORMANCE
TECHNIQUES

Dissertation for the Degree of Ph. D.
MICHIGAN STATE UNIVERSITY
DEAN WILLIAM TURNER
1975



This is to certify that the

thesis entitled

A SURVEY OF FOUR CLARINET COMPOSITIONS BY
WILLIAM O. SMITH: AS AN INTRODUCTORY SOURCE
OF CONTEMPORARY CLARINET PERFORMANCE TECHNIQUES

presented by

Dean William Turner

has been accepted towards fulfillment
of the requirements for

Ph. D. degree in MUSIC

A handwritten signature in cursive script that reads "R. Keith Stein".

R. Keith Stein

Major professor

Date May 12, 1975

6-30-71

ABSTRACT

A SURVEY OF FOUR CLARINET COMPOSITIONS BY WILLIAM O. SMITH: AS AN INTRODUCTORY SOURCE OF CONTEMPORARY CLARINET PERFORMANCE TECHNIQUES

By

Dean William Turner

The non-traditional monophonic and multiphonic technical requirements found in many clarinet compositions written during the 1960's and 1970's demand new performing techniques. Although many compositions include performing instructions, the various monophonic requirements of key vibrato, changes of timbre, harmonic tones, mutes, etc., and the various multiphonic requirements of humming while playing, sustained multiphonics, movement within multiphonics, etc., are all problems which need more detailed explanations and an appropriate study sequence to insure the mastery of the easier techniques before proceeding to the more difficult performing demands.

Four compositions by William O. Smith: Five Pieces for Clarinet Alone, Variants for Solo Clarinet, Fancies for Clarinet Alone, Mosaic for Clarinet and Piano, provide suitable material for the study of these new techniques. Material within the music, published articles and published fingering charts provide the basis for the experimentation necessary to determine physical manipulations and fingering preferences for the realization of each score. A cursory theoretical analysis is included as one aid to performance preparation, but no attempt is made to justify the musical significance of any of the compositions.

Dean William Turner

This dissertation indicates that the introduction of new clarinet performing techniques can be simplified by perfecting the various demands through a study sequence based on increasing difficulty. This sequence is not directly related to the investigated order of the compositions within the dissertation, but is founded upon the continuous study of each new technique as it is found in ever-increasing complexity throughout the four compositions and upon the increasingly difficult nature of the separate performance demands.

A list of compositions of a similar nature concludes the treatise.

This dissertation is a doctoral research requirement in addition to three clarinet recitals performed on the following dates: May 3, 1969; October 31, 1971; November 4, 1973.

A SURVEY OF FOUR CLARINET COMPOSITIONS BY
WILLIAM O. SMITH: AS AN INTRODUCTORY SOURCE
OF CONTEMPORARY CLARINET PERFORMANCE TECHNIQUES

By

Dean William Turner

A DISSERTATION

Submitted to

Michigan State University

in partial fulfillment of the requirements

for the degree of

DOCTOR OF PHILOSOPHY

Department of Music

1975

TO SHARON, SCOTT and JOHN
who have loved me
through it all.

ACKNOWLEDGMENTS

The author wishes to express his appreciation to Dr. Elsa Ludewig Verdehr for her guidance and encouragement in planning this investigation; to Dr. Russell Friedewald, Dr. Edgar Kirk, Dr. Richard Klausli, Mr. Keith Stein for helping this project reach fruition; to Dr. Phillip Rehfeldt for assistance in locating similar compositions; to Mrs. Virginia White for editorial assistance; and to Mrs. Faye Robertson for typing.

Sincere appreciation is expressed to MJQ Music, Inc., and Joseph Boonin, Inc. for permission to reproduce excerpts from their publications.

TABLE OF CONTENTS

LIST OF TABLES	Page vi
LIST OF FIGURES.	viii
Chapter	
I. INTRODUCTION	1
II. <u>FIVE PIECES for CLARINET ALONE</u>	8
I. Vigorous.	8
II. Flowing	13
III. Rhythmic.	16
IV. Singing	23
V. Spirited.	25
Summary	27
III. <u>VARIANTS for SOLO CLARINET</u>	28
I. Singing	30
II. Aggressive.	35
III. Nervous	41
IV. Tranquil.	47
V. Brilliant	51
VI. Dramatic.	53
Summary	58
IV. <u>FANCIES for CLARINET ALONE</u>	59
I.	60
II.	63
III.	66
IV.	69
V.	73
VI.	77
VII.	82
VIII.	85
IX.	88
X.	92
Summary	95

V.	<u>MOSAIC for CLARINET and PIANO</u>	96
I.	Dramatic	98
II.	Leisurely.	103
III.	Brittle.	107
IV.	Forceful	111
V.	Delicate	116
VI.	Electric	119
VII.	Lively	122
VIII.	Energetic.	124
IX.	Forceful	127
X.	Tranquil	131
XI.	Dramatic	135
	Summary.	138
VI.	SUGGESTED SEQUENCES OF STUDY.	140
	PLAN I.	140
	<u>FIVE PIECES for CLARINET ALONE</u>	141
	<u>FANCIES for CLARINET ALONE</u>	141
	<u>VARIANTS for SOLO CLARINET</u>	141
	<u>MOSAIC for CLARINET and PIANO.</u>	141
	PLAN II	142
	<u>FIVE PIECES</u>	142
	<u>FANCIES.</u>	143
	<u>VARIANTS</u>	145
	<u>MOSAIC</u>	147
	PLAN III.	150
	PLAN IV	153
	RECOMMENDATIONS	154
	APPENDIX: SIMILAR COMPOSITIONS.	155
	BIBLIOGRAPHY	157

LIST OF TABLES

	Page
1. Melodic and Rhythmic Thematic Materials.	10
2. Melodic Grace Notes.	14
3. Utilization of Four Simultaneous Tone-Rows	21
4. Key Vibrato.	31
5. Fingerings for Multiphonic Sonorities.	33
6. Multiphonics by Simultaneous Playing and Humming	38
7. Fingerings for Multiphonic Sonorities.	40
8. Production of Extremely High Notes with Mute	43
9. Multiphonic Trills	49
10. Changes of Color	55
11. Multiphonic Tremolos	56
12. Fundamental Melody's Rhythmic Organization	62
13. Rhythmic and Melodic Organization.	67
14. Rhythmic and Melodic Organization.	70
15. Monophonic to Multiphonic Similarities	83
16. Generation of an Upper Tone from a Given Fundamental	89
17. Melodic and Rhythmic Organization.	90
18. Alternate Fingerings for Multiphonic Sonorities.	106
19. Alternate Fingerings for Multiphonic Sonorities.	108
20. Muted Tones with b' Fingerings	113
21. Tremolo Fingerings	114

	Page
22. Suggested Order of Study by Movement - <u>Fancies for</u> <u>Clarinet Alone</u> - Plan II.	144
23. Suggested Order of Study by Movement - <u>Variants for</u> <u>Solo Clarinet</u> - Plan II	146
24. Suggested Order of Study by Movement - <u>Mosaic for</u> <u>Clarinet and Piano</u> - Plan II.	148
25. Suggested Order of Study by Performing Technique - Plan III .	151

LIST OF FIGURES

	Page
1. Smith, <u>Five Pieces</u> , I, measures 1-2.	8
2. Smith, <u>Five Pieces</u> , I, measures 1-2.	11
3. Smith, <u>Five Pieces</u> , II, measures 25-28	15
4. Smith, <u>Five Pieces</u> , II, measure 30	16
5. Smith, <u>Five Pieces</u> , III, measures 1-4.	17
6. Smith, <u>Five Pieces</u> , III, measures 5-8.	18
7. Smith, <u>Five Pieces</u> , III, measures 11-14.	19
8. Smith, <u>Five Pieces</u> , III, measures 16-19.	20
9. Smith, <u>Five Pieces</u> , III, measure 28.	22
10. Smith, <u>Five Pieces</u> , III, measures 32-33.	22
11. Smith, <u>Five Pieces</u> , IV, measures 1, 3, 14, 22, 24.	24
12. Smith, <u>Five Pieces</u> , IV, measures 5-6	25
13. Smith, <u>Five Pieces</u> , IV, measure 28	26
14. Smith, <u>Variants</u> , I, sonorities 1-3	30
15. Smith, <u>Variants</u> , II, sonorities 1-4.	36
16. Smith, <u>Variants</u> , III, sonorities 2, 10, 53, 54, 55, 56	42
17. Smith, <u>Variants</u> , III, sonorities 35, 39, 44, 45.	42
18. Smith, <u>Variants</u> , III, sonorities 23-28	44
19. Smith, <u>Variants</u> , III, sonorities 53-56	44
20. Smith, <u>Variants</u> , III, sonorities 6, 7.	46
21. Smith, <u>Variants</u> , IV, sonorities 1-5.	47
22. Smith, <u>Variants</u> , IV, sonorities 8-10	48

23.	Smith, <u>Variants</u> , IV, sonorities 6-7, 11-12, 19-20	49
24.	Smith, <u>Variants</u> , V, sonorities 4-20	51
25.	Smith, <u>Variants</u> , V, sonorities 2-4, 21-22, 59	52
26.	Smith, <u>Variants</u> , VI, sonorities 1-2, 20-21.	54
27.	Smith, <u>Variants</u> , VI, sonorities 4-6, 24-25.	55
28.	Smith, <u>Variants</u> , VI, sonorities 7-8	56
29.	Smith, <u>Fancies</u> , I, measures 1-3	61
30.	Smith, <u>Fancies</u> , II, measures 3-4, 13-14	64
31.	Smith, <u>Fancies</u> , II, measures 1-4.	64
32.	Smith, <u>Fancies</u> , III, measures 1-4	66
33.	Smith, <u>Fancies</u> , IV, measures 1-4.	70
34.	Smith, <u>Fancies</u> , IV, measure 7	72
35.	Smith, <u>Fancies</u> , V, measures 1-4	74
36.	Smith, <u>Fancies</u> , V, measures 5-6	76
37.	Smith, <u>Fancies</u> , VI, measures 1-3.	78
38.	Smith, <u>Fancies</u> , VI, measures 5, 9	79
39.	Smith, <u>Fancies</u> , VI, measures 6-10	81
40.	Smith, <u>Fancies</u> , VII, measures 1-3	82
41.	Smith, <u>Fancies</u> , VII, measures 2, 6, 7	84
42.	Smith, <u>Fancies</u> , VIII, measures 1-5.	85
43.	Smith, <u>Fancies</u> , VIII, measures 10, 11	86
44.	Smith, <u>Fancies</u> , VIII, measure 5	87
45.	Smith, <u>Fancies</u> , IX, measures 3-4.	88
46.	Smith, <u>Fancies</u> , IX, measures 1, 9	91
47.	Smith, <u>Fancies</u> , X, measures 1-4	92
48.	Smith, <u>Mosaic</u> , I, sonority 15	99
49.	Smith, <u>Mosaic</u> , I, sonorities 16-22.	100

50.	Smith, <u>Mosaic</u> , I, sonorities 6-7.	101
51.	Smith, <u>Mosaic</u> , I, sonorities 36-38.	102
52.	Smith, <u>Mosaic</u> , I, sonorities 1-2, 8-9	102
53.	Smith, <u>Mosaic</u> , II, sonorities 1, 4, 8, 11	104
54.	Smith, <u>Mosaic</u> , II, sonorities 13, 15, 16, 17.	105
55.	Smith, <u>Mosaic</u> , III, sonorities 2, 8, 9, 11.	107
56.	Smith, <u>Mosaic</u> , III, sonorities 12-23.	111
57.	Smith, <u>Mosaic</u> , IV, sonorities 1-10.	112
58.	Smith, <u>Mosaic</u> , IV, sonorities 18-52	114
59.	Smith, <u>Mosaic</u> , IV, sonorities 11-14, 17	115
60.	Smith, <u>Mosaic</u> , V, sonorities 1-3.	116
61.	Smith, <u>Mosaic</u> , V, sonorities 6-7.	117
62.	Smith, <u>Mosaic</u> , V, sonorities 4, 22.	117
63.	Smith, <u>Mosaic</u> , V, sonorities 6-8.	118
64.	Smith, <u>Mosaic</u> , VI, sonorities 1-5	119
65.	Smith, <u>Mosaic</u> , VI, sonorities 8-9	120
66.	Smith, <u>Mosaic</u> , VI, sonorities 11-19	121
67.	Smith, <u>Mosaic</u> , VII, sonorities 1-8.	122
68.	Smith, <u>Mosaic</u> , VII, sonorities 9-20	123
69.	Smith, <u>Mosaic</u> , VIII, sonorities 23-33	124
70.	Smith, <u>Mosaic</u> , VIII, sonorities 71-73	125
71.	Smith, <u>Mosaic</u> , VIII, sonorities 22-23, 35-36.	125
72.	Smith, <u>Mosaic</u> , VIII, sonorities 1-4	126
73.	Smith, <u>Mosaic</u> , IX, sonorities 14-16	127
74.	Smith, <u>Mosaic</u> , IX, sonorities 3-6	128
75.	Smith, <u>Mosaic</u> , IX, sonorities 19-23	128
76.	Smith, <u>Mosaic</u> , IX, sonorities 17-18	129

77.	Smith, <u>Mosaic</u> , IX, sonorities 17-18	130
78.	Smith, <u>Mosaic</u> , IX, sonority 13.	130
79.	Smith, <u>Mosaic</u> , X, sonorities 1-4.	131
80.	Smith, <u>Mosaic</u> , X, sonorities 9-13	132
81.	Smith, <u>Mosaic</u> , X, sonorities 5-6.	133
82.	Smith, <u>Mosaic</u> , X, sonorities 7, 8	134
83.	Smith, <u>Mosaic</u> , X, sonority 14	134
84.	Smith, <u>Mosaic</u> , XI, sonorities 1-7	135
85.	Smith, <u>Mosaic</u> , XI, sonorities 8-10.	136
86.	Smith, <u>Mosaic</u> , XI, sonorities 17-24	137
87.	Smith, <u>Mosaic</u> , XI, sonority 25.	138

CHAPTER I

INTRODUCTION

Solo Clarinet literature, as performed by students and professionals, encompasses a period of approximately 225 years. Although the clarinet evolved about 1690, it did not achieve general recognition until 1750¹; little or no significant literature is extant prior to this date.

In the Classic period concertos by K. Stamitz and the Clarinet Concerto (1789) by Mozart represent some of the best literature for the instrument from its initial period. Composers of the Romantic era expanded the extent of the literature available to the clarinetist with the Spohr concertos, Schumann Fantasiestucke, Brahms sonatas and Reger sonatas among the favorite selections of performers. The twentieth century compositions for clarinet by Debussy, Nielsen, Berg, Hindemith and Copeland have further expanded the substance of the literature and the technical demands placed on the performer.

It is generally recognized that while the principles of musical composition remain relatively unchanged, the techniques required to perform the music of different periods do require adaptations. Such changes and consequent challenges confront the contemporary performer - both student and professional. The clarinetist who studies and performs this new literature will experience fresh and exciting problems which will tax his playing ability and temper his criteria for judging musical value.²

1. Oskar Kroll, The Clarinet, rev. Diethard Riehm, trans. Hilda Morris, trans. ed. Anthony Baines (New York: Taplinger Publishing Co., 1968), p. 46.

2. Abraham A. Schwadron, "Contemporary Music for Clarinet" (Instrumentalist, 1965, no. 11), p. 73.

sen

comp

the

cont

for

Lyle

of a

part

all

Fish

pani

for

esta

However, all the twentieth century compositions noted above are sonatas or concertos and, as such, do not reflect the total contemporary compositional efforts for clarinet. In order to appreciate the extent of the literature for clarinet, it is necessary to review the significant contributions of music for unaccompanied clarinet.

"The size and historical scope of the unaccompanied solo repertory for the clarinet ranks second only to that of the flute."³ Although, as Lyle Merriman⁴ points out, the majority of this literature is undoubtedly of a trivial nature, some is worthy of performance.

The earliest known work for unaccompanied clarinet is Trois Caprices pour la Clarinette Seule (1810) by Anton Stadler, although, ". . . nearly all works now in print were composed in the last fifty-five years."⁵ Huot Fisher⁶ agrees with Merriman⁷ that of the eight serious works for unaccompanied clarinet published prior to 1950, only the Stravinsky, Three Pieces for Clarinet Solo (1919), has been widely performed and accepted as an established part of the repertoire in the United States.

3. James E. Gillespie, Jr., Solos for Unaccompanied Clarinet: An Annotated Bibliography of Published Works, Detroit Studies in Bibliography, no. 28 (Detroit: Information Coordinators, Inc., 1973), p.11.

4. Lyle C. Merriman, "Solos for Unaccompanied Woodwind Instruments: A Checklist of Published Works and Study of Representative Examples" (unpublished Ph.D. Dissertation, State University of Iowa, 1963), p.4.

5. Gillespie, Solos for Unaccompanied Clarinet, p. 11.

6. Huot Fisher, "A Critical Evaluation of Selected Clarinet Solo Literature Published from January 1, 1950 to January 1, 1967" (unpublished Ph.D. Dissertation, University of Arizona, 1970), p. 5.

7. Merriman, "Solos for Unaccompanied Woodwind Instruments", p. 80.

Since the middle of the twentieth century the number of compositions for solo clarinet has been increased by over forty works, according to Fisher⁸. Gillespie⁹ found the literature for solo clarinet extensive and significant enough to warrant a recently published study.

In addition to numerous compositions for unaccompanied clarinet since 1950, extensions of traditional techniques and innovative compositional procedures have created new performance demands which are often reflected in later accompanied works.

Many composers and performers of clarinet literature have been stimulated by the 1967 translation of Bruno Bartolozzi's New Sounds for Woodwinds¹⁰. The use of natural and artificial harmonics, alteration of timbres, quarter-tone and micro-tonal intervals, multiphonics, and the possibility of combining monophonic and multiphonic resources provided composers and performers with an awareness of the potentials of the woodwind instruments. Thus, an atmosphere conducive to experimentation was established, comparable to that outlined in Rey Longyear's¹¹ discussion of Beethoven's legacy. The performer is forced to raise his performance skills to the level of the composer's demands, and so gives future composers a point from which to extend further the technical possibilities of the instrument. In this manner, the composer and the performer are

8. Fisher, "A Critical Evaluation of Selected Clarinet Solo Literature", p. 5.

9. Gillespie, Solos for Unaccompanied Clarinet.

10. Bruno Bartolozzi, New Sounds for Woodwinds, trans. and ed. Reginald Smith Brindle (London:Oxford University Press, 1967).

11. Rey M. Longyear, Nineteenth-Century Romanticism in Music, Prentice-Hall History of Music Series, ed. H. Wiley Hitchcock (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969), p. 33.

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

continually challenging each other in quest of an increased technical performance level. A performer who disregards these innovations cannot further his personal skill nor hope to inspire composers to further theirs.

Because a large percentage of performers are also teachers, they must develop a pedagogical approach to works using innovative performing techniques. For educational purposes of a personal or tutorial nature, the clarinetist needs to insure the growth and consequent challenges of new literature, but, as stated above by Schwadron, the solving of problems which tax the performer's playing ability demands new attitudes and criteria for evaluating musical significance.

The performer, whose value criteria and technical facilities are generally rooted in more conservative ideas, frequently rejects the newer music as ugly or merely unplayable. To some extent they are understandable reasons.

The professional ... must consider the expanding repertoire as a vital source of fresh music which adds a significant dimension to the existing ... literature. Habits of suspended judgement must be nurtured; the meaning of the word "contemporary" must be re-examined; the nature of musical creativity must be analyzed critically; the function of the performer as an educator, as well as entertainer must be clarified; and finally, mundane "likes and dislikes" must not be confused with significant artistic values. In other words, it behooves the conscientious and responsible musician to study and perform new music. While the complacent consumer of music will make no demands on the musician to perform new music, the educational obligation rests heavily on the performer. A musically literate and cognizant society is feasible and the role of the performer is vital.¹²

It is the intent of this investigation to establish a study sequence of clarinet compositions which will introduce the technical demands made on the performing clarinetist in the 1960's and 1970's. No attempt will be made to justify the musical significance of the works. This treatise will deal only with those skills needed for a successful performance of the score.

12. Schwadron, "Contemporary Music for Clarinet", p. 73.

Four compositions by William O. Smith will be used to provide a pedagogical introduction of these contemporary performing techniques.

These, listed according to their date of publication, are:

Five Pieces for Clarinet Alone (1963)

Variants for Solo Clarinet (1967)

Fancies for Clarinet Alone (1972)

Mosaic for Clarinet and Piano (1972)

These four compositions are representative of the increased performance requirements placed on the clarinetist by contemporary composers. In addition, by using the works of one composer it is easier to study the expansion of these performance requirements while presenting to clarinetists a relatively unknown composer who has written rather extensively for the clarinet, and who has made significant contributions to the clarinet repertoire.

The compositions will be discussed in their order of publication with all the unaccompanied works grouped together. The title and composer will be followed by the following factual information: publisher, date of publication, estimated performance time, written range for the clarinet, and titles, initial tempos and meters of each movement. All examples will be given for the B-flat clarinet, as written, with ranges expressed according to the following system:

7

All

men

fin

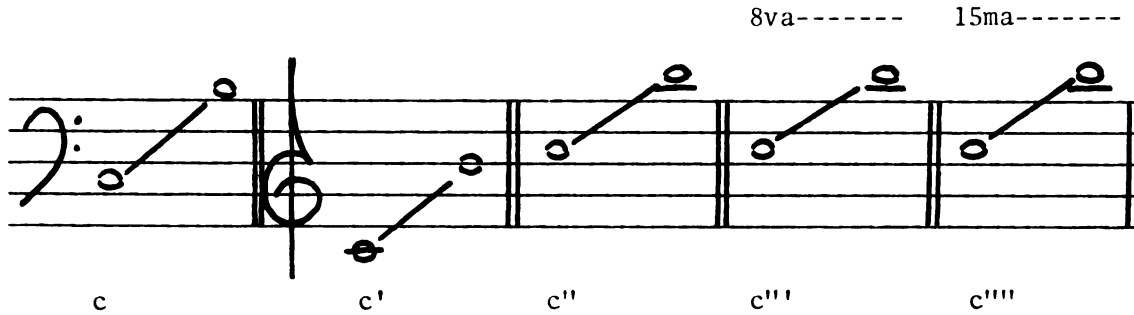
use

sig

sig

sig

sig



All musical examples have been numbered from the beginning of each movement.

The technical nature of this study necessitates the inclusion of fingerings for the solutions of problems. The following system will be used. Darkened circles will indicate a closed hole, while a circle will signify the hole is opened.

	7	
	6	
8	0	
0	0	
	5	
0		
I	4	
H		3
G	2	
F	0	1
	0	
	E	
	0	
A	D	
B	C	

Evaluation and analysis of each composition will logically lead to suggested solutions of problems; due to the limited published information available, many documented resolutions will necessarily be based on personal experimentation.

Following a discussion of each separate composition used in this treatise, William O. Smith's works will be arranged in an appropriate sequence of study for the introduction of non-traditional literature for clarinet.

Finally, an appendix will list other works of a similar nature.

CHAPTER II

FIVE PIECES for CLARINET ALONE

by William O. Smith

Publisher: Universal Edition, London (1963)

Performance time: 7 1/2 minutes

Range: e - a'''

Movements:	I	Vigorous	4/4	♩ = 112
	II	Flowing	3/4	♩ = 160
	III	Rhythmic	4/4	♩ = 138
	IV	Singing	4/4	♩ = 72
	V	Spirited	4/4	♩ = 120

I

Vigorous

The pointillism which commences Vigorous, as seen in Figure 1. below, accurately previews the continual change of registers throughout this movement.

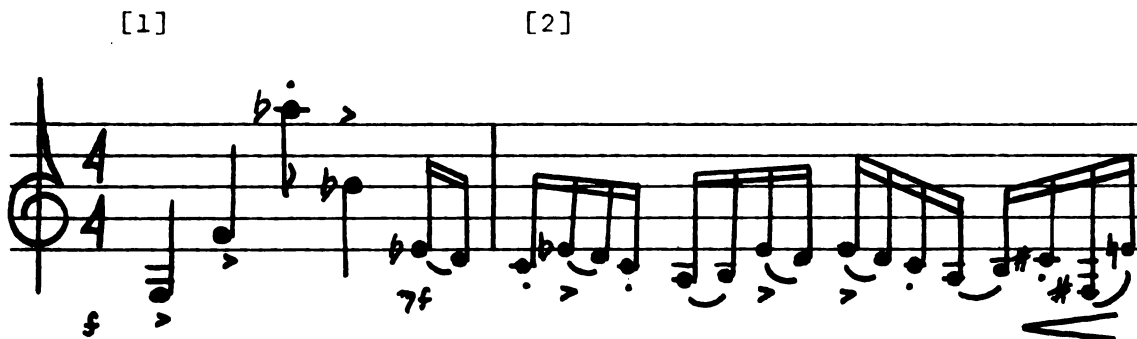


Figure 1. Smith, Wm. O., Five Pieces for Clarinet Alone, I, measures 1-2, Copyright 1963 by Universal Edition (London), Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The c

mated

repe

chal

and u

inet

they

The p

prob

twen

peat

four

thir

of t

Cons

suc

bea

pat



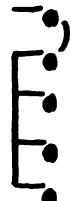






not

Ret

The opening four notes and consequent intervals provide the basic thematic material. This melodic material as shown in Table 1. below, though not repeated exactly, is similar, considering interval inversion, and, as such, challenges the performer with fingering difficulties, voicing problems and unusual music reading skills. These will be difficult for any clarinetist educated in the methods and etudes of the nineteenth century, but they are problems which can be readily solved through careful practice. The pointillistic compositional technique and the inherent performing problems mentioned above are also evident in measures twenty-four and twenty-five where the interval of two octaves and a minor third is repeated four times, and in measure thirty where two octaves and a perfect fourth provide the widest leap of the movement.

The shifted accents in measures two, five and six, twenty-seven, thirty and thirty-one, though hardly unique or innovative in a composition of this date, present metrical performing problems for the clarinetist. Consecutive sixteenth-notes in inconsistent patterns of twos and threes, such as measure two shown in Figure 1. above, disregard the placement of beats and maintain the sixteenth-note as a constant value. The counting pattern would thus be; 1-2-3, 1-2-3, 1-2, 1-2, 1-2-3, 1-2-3, 1-2 with the notated accent continually recurring on the mental one rather than the metrical beat.

Table 1. Melodic and Rhythmic Thematic Materials

Measure #	Written Notes	Intervals Reduced to the octave			Rhythm
1	g f' ab'' bb'	m7	m3	m7	
7	e f#', b'' a'	M2	P4	M2	
11	eb''' db'' bb ab'	M2	m3	m7	
11-12	db''' eb'' ab bb'	m7	P5	M2	
12	eb''' db'' bb	M2	m3	-	
26	g''' f'' ab' bb	M2	M6	M2	
32-33	g#''' f#'' e	M2	-	M2	
34-35	g#''' f#'' e	M2	-	M2	
36	e f#'' g#'''	M2	-	M2	

Fi
Co
a₂

To

fr

ab

fi

an

for

to

the

pre

bec

Ex

lit

in

[8]

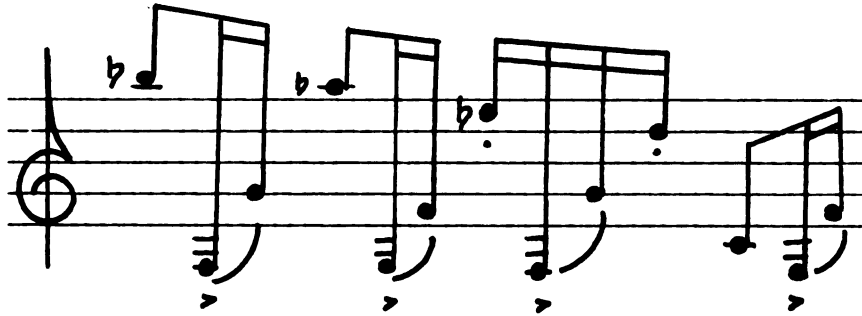


Figure 2. Smith, Wm. O., Five Pieces for Clarinet Alone, I, measure 8, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The composer¹³ suggests the possibility of more than one voice by skipping from one register to another. The passage in measure eight, Figure 2. above, where a melody, $b^b'' a^b'' e^b'' d''$, is accompanied by an ostinato figure in a lower range is then repeated in kind in measures twenty-four and twenty-five, twenty-seven, thirty and thirty-one and later in the fourth movement. This desired effect of polyphony is extremely difficult to produce on a monophonic instrument, and is, perhaps, more a visual than aural effect.

The inclusion of $g^{\#'''}$ in the final measure of the movement should present no problems. The extending of the clarinet range beyond g''' has been a "fact of life" for every accomplished clarinetist since Weber's E-flat Concerto for Clarinet, opus 74 (1811). However, inclusion in the literature of a note beyond g''' does not necessarily imply its inclusion in most fingering charts. Although Sigel¹⁴, among others, shows eight

13. William O. Smith, William O. Smith: Four Chamber Works (Los Angeles: Contemporary Records, Inc., 1963), album jacket.

14. Allen Sigel, The Twentieth Century Clarinetist (New York: Franco Columbo, Inc., 1966), p. xii.

possible fingerings for g''' , none of these duplicate the fingering

$$\begin{array}{r}
 8 \ 0 \\
 \bullet \ \bullet \\
 \bullet \\
 \hline
 \bullet \\
 0 \\
 \bullet \\
 A
 \end{array}$$

which easily follows from the g'' fingered without key D in measure thirty-two. This fingering is repeated in measure thirty-four and can be accomplished in both cases by relaxing the throat. In measure thirty-six, a different note, f'' , precedes the g''' under discussion, and, thus, demands the need for an overblown d''' to produce g''' for simplicity of rapid fingering, as shown below.

$$\begin{array}{r}
 8 \ 0 \\
 \bullet \ \bullet \\
 \bullet \\
 \hline
 0 \\
 \bullet \\
 0 \\
 D
 \end{array}$$

II

Flowing

Pointillism is also used throughout this movement. The general slurring of notes rather than the staccato articulations and the accents found in the first movement provide stylistic contrast. This legato effect continues through measure twenty. At this point it is replaced by a series of detached eighth-notes in a pattern of ever-widening intervals and returns to the original articulations to conclude the Piece from measure thirty-one.

The frequent grace notes in Flowing suggest two voices with the large leaps from one register to another. Although Table 2. shows that these grace notes are generally intervals of a second or seventh when reduced to within the octave, the performer meets the recurring pointillistic problems of fingerings, voicings and music reading skills encountered in Vigorous. These difficulties are eased with careful, slow practice and constant repetition.

Table 2. Melodic Grace Notes

Measure #	Written Notes	Intervals Within Octave
1	f f#''	A8=m2
2	a b''	M2
3	d' e ^{b'''}	m2
5	f d''	M6
5	c' b'	M7
6	f# e''	m7
10	a ^b b ^b '	M2
23	b ^b a ^{b''}	m7
24	e ^{b'} f	m7
29	d'' c'	M2
30	e f#'''	M2
31	a e'''	P5
33	f g'	M2
34	a ^b g	m2
35	d#' e	M7

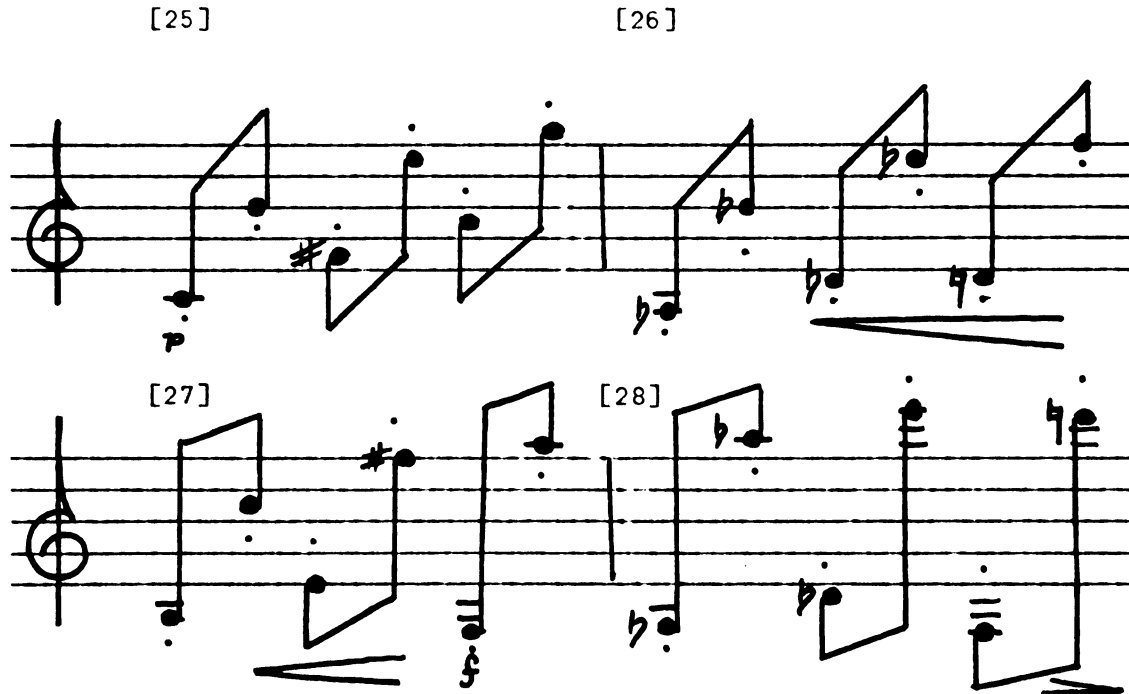


Figure 3. Smith, Wm. O., Five Pieces for Clarinet Alone, II, measures 25-28, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The expansion of intervals in measures twenty-five through twenty-eight, shown above, reaches from a minor seventh to two octaves and a major sixth and requires pointillistic performing solutions as mentioned above.

These wide melodic leaps extend to three octaves and a major second in the grace-note passage shown in Figure 4., and demand smoothness through the indicated slurs.

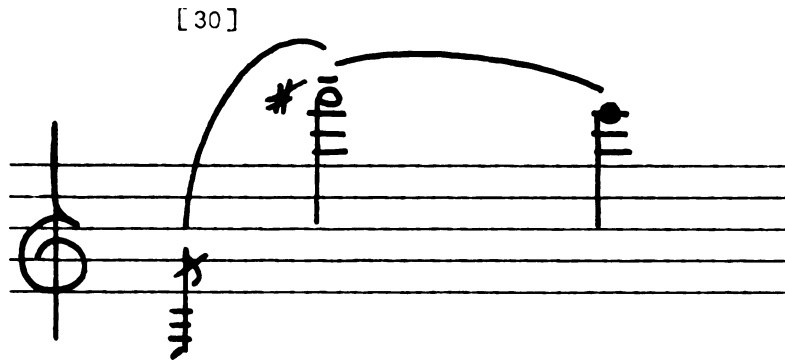


Figure 4. Smith, Wm. O., Five Pieces for Clarinet Alone, II, measure 30, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

These wide leaps necessitate a facile technique and careful use of air support to achieve the flowing indication suggested by the title of this movement.

Shifted accents are again present, but are not as complex as those of the initial movement.

All notes lie within the normal range of the clarinet. The fingerings are conventional except for the g'' in measure thirty which is achieved more easily as a seventh partial of the preceding a by retaining the basic a fingering and using a half-hole with the first finger left hand.

III

Rhythmic

Rhythmic does not deviate from the general pointillistic pattern established in the preceding Pieces. Although it is not the intent of this treatise to discuss compositional techniques or structures, these elements are primarily responsible for the performing problems within this movement and, therefore, require a cursory investigation as a pedagogical aid.

Fisher¹⁵ mentions the tone-row nature of the initial and final thematic material. Gillespie¹⁶, however, only relates the composer's attempt to portray four individual voices through the use of contrasting clarinet registers. By combining the observations of each of the above researchers, the original row was isolated and relationships to it were established.



Figure 5. Smith, Wm. O., Five Pieces for Clarinet Alone, III, measures 1-4, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The original row, seen above, is presented in the clarinet's middle range, c'-b', save for the chalameau g in measure two. It is punctuated by frequent rests, and is without any indicated dynamic contrasts.

The original row is basically transposed up a major sixth, measures five through eight, to the slightly brighter clarion register, c''-b'', coordinated with the preceding thematic rhythm and emphasized with mezzo forte dynamics and accents. The rests of the original row are partially negated by a pianissimo counter-melody in the general range of the preceding statement of the row.

15. Fisher, "A Critical Evaluation of Selected Clarinet Solo Literature", p. 30.

16. Gillespie, Solos for Unaccompanied Clarinet, p. 61.

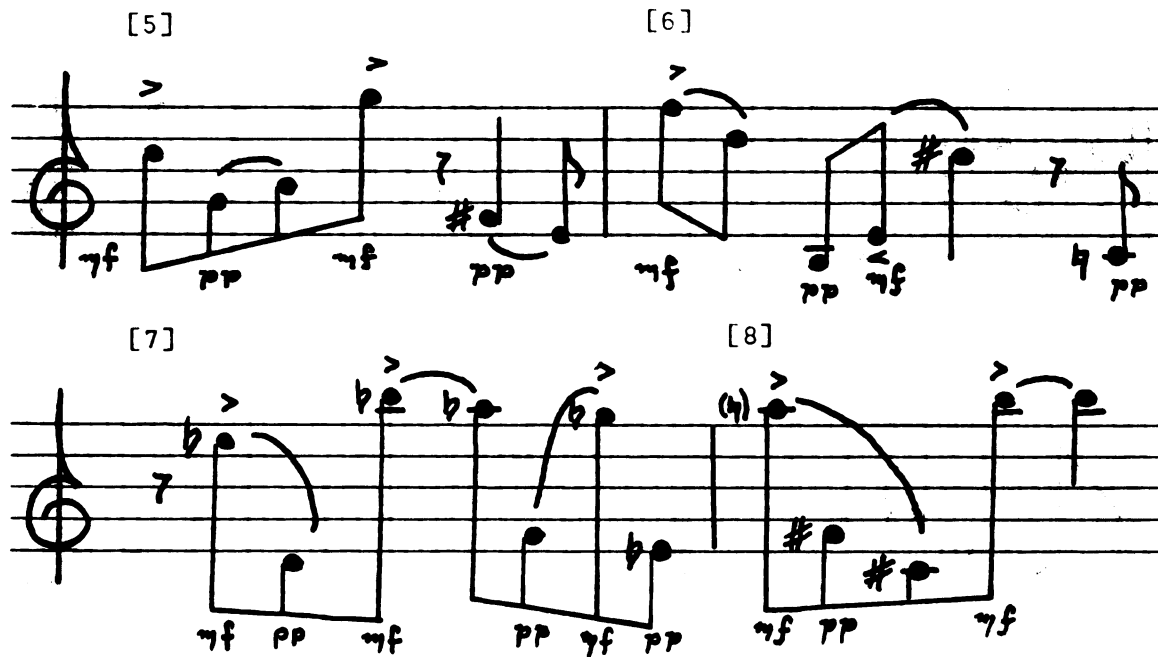


Figure 6. Smith, Wm. O., Five Pieces for Clarinet Alone, III, measures 5-8, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

A third basic statement of the original row, transposed down a perfect fifth in measures eleven through fourteen, is placed in the chalameau register of the clarinet, $e-e^{b'}$, with a general duplication of the original row's rhythm. The placement of the row is accented and further exposed through forte dynamics which contrast the piano dynamics of the counter-melodies. These two counter-melodies, representing the two previous row statements, continue the process of filling in the original rests.

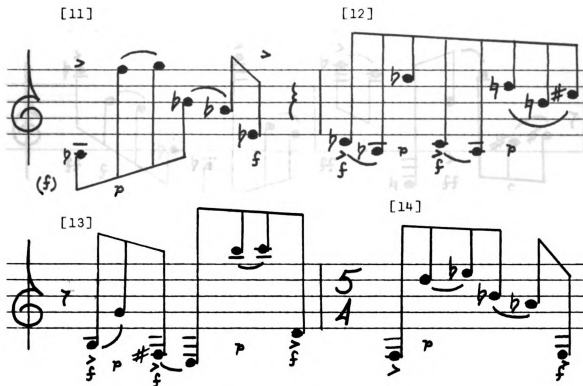


Figure 7. Smith, Wm. O., *Five Pieces for Clarinet Alone, III*, measures 11-14, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

Another basic statement of the original row, measures sixteen through nineteen, is transposed up an octave and a perfect fifth to the upper register of the clarinet. The range, d''-a''', is further placed in prominence through the accents, which point out the rhythm of all preceding row statements, and through the dynamic contrast between the fortissimo for the row material and the forte for the three counter-melodies. Each counter-melody represents the range of one of the previous statements of the row.

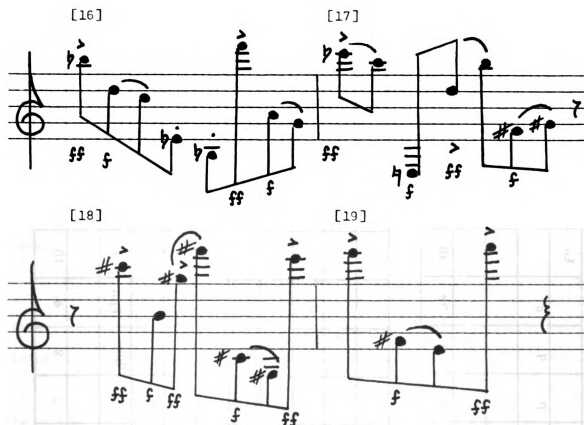


Figure 8. Smith, Wm. O., Five Pieces for Clarinet Alone, III, measures 16-19, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

All four previous statements of the row are combined for simultaneous presentation in measures twenty-two to twenty-eight according to the visual arrangement shown in Table 3. below.

The original row is transposed up a minor third in measure twenty-eight in rapid sixteenth-notes which continually leap between the registers.

Table 3. Utilization of Four Simultaneous Tone-Rows

Note #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Row 1.	d'	a'		g'		e'					f#'	d#'			
Row 2.			ab''		eb'''			db'''	b ^{b''}	c'					
Row 3.							f			c'				b ^b	g
Row 4.													b'		

Note #	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Row 1.					f'		c'	a#'		g#'					
Row 2.		a							b''		f#''		e'''		
Row 3.		a	f#									g#		eb'	
Row 4.	f#''			e''		db''								eb'	c''

Note #	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Row 1.			b									d ^{b'}			
Row 2.				d'''							a ^{b'}		g''		
Row 3.	c#'						b	d'	e						
Row 4.		d''			a'	g''				f''				b ^{b'}	a ^b

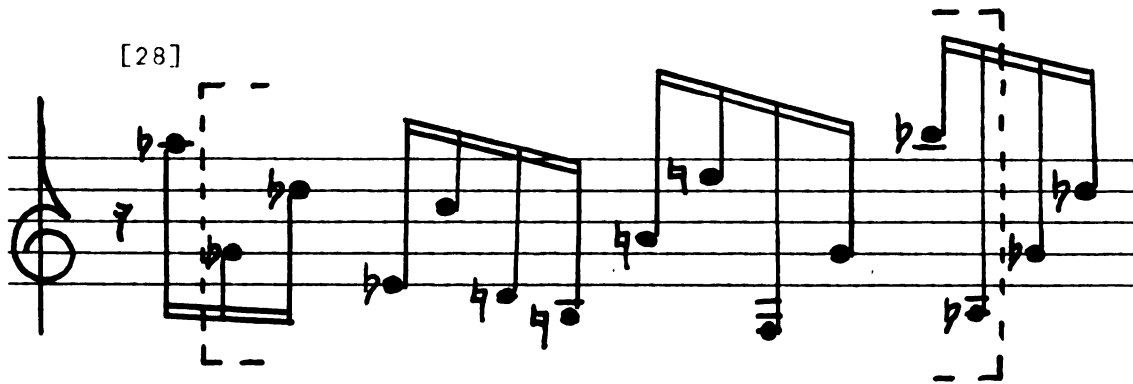


Figure 9. Smith, Wm. O., Five Pieces for Clarinet Alone, III, measure 28, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

A final statement of the row, measures twenty-nine through thirty-three, uses the original notes by displacing the octaves, creating wide leaps and utilizing all registers of the instrument. The original rhythm is repeated with sustained notes filling in the original rests. The last two notes are sustained in order that changing timbres, as seen below, may be applied to them.

8 0	8 0	•	•
• 0 ₅	0 0	•	•
0	0	04	0
0	•	0	0
0	•	0	•
0	•	0	•

Figure 10. Smith, Wm. O., Five Pieces for Clarinet Alone, III, measures 32-33, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The sections between statements of the rows and counter-melodies retain the system of contrasting registers by manipulating a duplet pattern of ascending and descending seconds, with occasional thirds, to imitate the rhythmic pattern of the initial two tones.

The pointillism which results from the complex presentation of elements from various row and counter-melody material presents formidable performing obstacles. The rows or counter-melodies taken individually are not difficult to perform, but are very difficult to play when the various rows and counter-melodies are combined and when the sudden dynamic changes, wide leaps and subsequent fingerings, voicings and music reading requirements occur at a rapid tempo.

Experimentation has shown that practicing the various structural elements of this movement individually before attempting to combine the contributing parts will be helpful. Thus, a knowledge of the various parts of the structure, as discussed above, is essential.

This movement provides the primary challenge to the technical facilities of the performer.

IV

Singing

Piece IV parallels the general pattern and performing problems of Piece II with the continuing pointillistic statements and the use of slurs to contrast the detached style of the initial and previous movements. The tempo, ♩ = 72, the slowest of any in the entire composition, and the use of more sustained notes enhance the contrasting performing style between movements.

The thirty-second-note passages shown below follow the pattern: consecutive duplets, each a major second separated by a perfect fourth, as originally seen in Piece I.

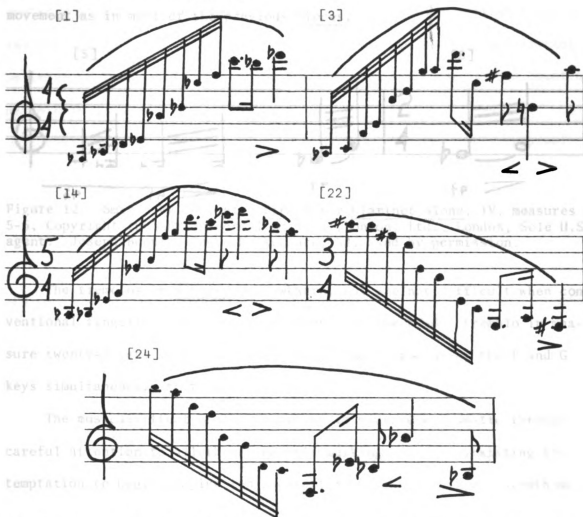


Figure 11. Smith, Wm. O., Five Pieces for Clarinet Alone, IV, measures 1, 3, 14, 22, 24. Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

This arrangement of seconds and fourths, or their inversions, is continued in the grace notes in measures seven, nine, twenty-eight and twenty-nine. The performer has no problem playing these examples once the unusual patterns of intervals are mastered.

Gillespie¹⁷ felt that the composer utilized frequent tremolos, represented by measures five and six below, to suggest simultaneous voices. However, aurally, this multiple voice effect seems to be as futile in this movement as in most of the previous Pieces.

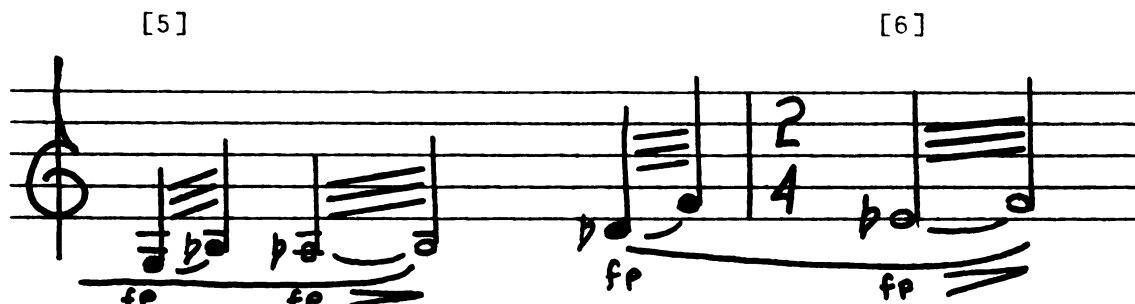


Figure 12. Smith, Wm. O., Five Pieces for Clarinet Alone, IV, measures 5-6, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The tremolos in Singing are awkward, but are not difficult when conventional fingerings are used. An exception, the b''-d''' tremolo in measure twenty-seven, is simplified by fingering b'' and using the F and G keys simultaneously to tremolo.

The musical effect of this movement is made more dramatic through careful attention to all the composer's markings, and by resisting the temptation to begin playing too soon after the score-included breathmarks.

V

Spirited

The concluding Piece is similar to the initial movement in several respects, and, as such, Fisher¹⁸ notes that it unifies the composition to

17. Ibid.

18. Fisher, "A Critical Evaluation of Selected Solo Literature", p. 30.

a d

ten

pa

inc

pa

pa

su

ex

th

ti

F

C

a

T

n

-

a degree not anticipated by the title. The pointillism continues in a tempo, ♩ = 120, quite similar to that of the opening movement.

In Spirited, the rhythmic manipulations of extended sixteenth-note patterns into various groupings of duplets and triplets present the clarinetist with performing obstacles similar to Piece I. The inconsistent patterns of twos and threes in this movement require the use of the counting pattern suggested in the above discussion of Vigorous.

Neither Gillespie¹⁹ nor Fisher²⁰ mentions the composer's apparent suggestion of more than one voice in this movement; however, the register extremes in several instances imply this intent, successful or not, by the composer.

The separation of notes by wide melodic leaps and their rapid, rhythmically asymmetrical nature make Spirited a difficult movement to perform.

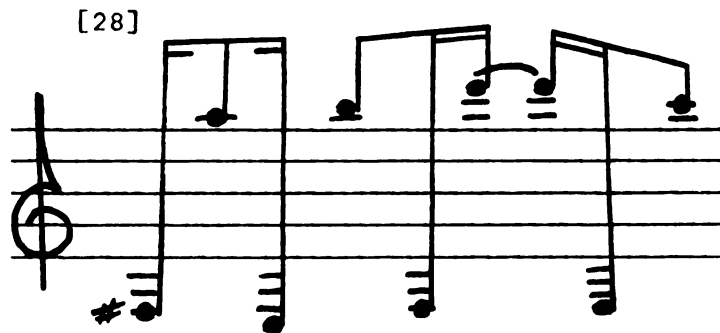


Figure 13. Smith, Wm. O., Five Pieces for Clarinet Alone, V, measure 28, Copyright 1963 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The execution of these wide leaps, three octaves and a minor third in measure twenty-nine, is further complicated by constantly shifting accents,

19. Gillespie, Solos for Unaccompanied Clarinet.

20. Fisher, "A Critical Evaluation of Selected Solo Literature".

This compositional technique is not innovative, but, conversely, is not technically easy for the clarinetist. These leaps can be mastered only by slow, careful practice.

Less dynamic contrast and/or less sudden dynamic contrast is used in this Piece. However, the retention of a fortissimo in measures twenty-two through twenty-nine demands a taxing physical effort to maintain the intensity of sound required throughout the range of the instrument. Most other dynamic markings are similar to Piece I in duration and in the inclusion of percussive accents.

Gillespie²¹ mentions the composer's intentions of a multiphonic final sonority. This is not indicated by the published e'-g#' tremolo in the score.

Summary

The various movements of Five Pieces for Clarinet Alone are challenging to a conventionally-trained clarinetist, but the technical problems do not exceed the traditional demands placed upon the performer of earlier twentieth-century accompanied and unaccompanied literature for clarinet. Fisher states that the composition is "well worth the effort"²² And in a 1965 review of the composition it is said: "... the impression throughout is of musical problems musically solved."²³

21. Gillespie, Solos for Unaccompanied Clarinet, p. 62.

22. Fisher, "A Critical Evaluation of Selected Clarinet Solo Literature", p. 32.

23. John A. Caldwell, "Reviews of New Music: Clarinet Solo" (Music and Letters, vol. 26, no. 4, October 1965), p. 370.

era

rev

CHAPTER III

VARIANTS for SOLO CLARINET

by William O. Smith

Publisher: Universal Edition, London (1967)

Performance time: c. 8 minutes

Range: e^b - d''''

Movements:	I	Singing
	II	Aggressive
	III	Nervous
	IV	Tranquil
	V	Brilliant
	VI	Dramatic

The unique aspects of this composition are worthy of general consideration prior to evaluation of each movement separately.

It (Variants) is preceded by a little essay on "Some Extensions of Clarinet Technique" which discusses briefly such matters as key vibrato, muting, key clicks and multiple sounds. This must be intended for composers, since much of it is quite familiar to any curious clarinetist, and no fingerings are given for the tables of multiple sonorities. The work itself is a series of little sound-pieces exploring key vibrato, multiple sonorities (fingered and hummed), muting effects, grace notes, quick changes in dynamics, glissandi, trills and key clicks. Such erstwhile matters as melody, rhythm and form are not factors here. As studies for an advanced student they are no doubt essential, fine for a lesson or for discussion at a studio recital or demonstration; but to expect them to be accepted as anything more than didactic pieces seems wholly presumptuous.²⁴

It is necessary to take issue with two remarks included in the above review. First, though the introductory comments, in both English and

24. "Reviews" (Brass and Woodwind Quarterly, Vol. 2, no. 1, Spring-Summer 1969), p. 66.

Get

pro

the

no

as

co

da

pa

ra

co

an

32

"t

ti

TH

P

or

us

in

es

—

German, are brief and incomplete in several respects, they should most properly be utilized as explanatory material for realization of the score; they do not appear to be effects with which most clarinetists, curious or not, are readily familiar. Second, the elimination of this composition as suitable performance material as suggested limits twentieth-century composition and performance through a dated philosophy and practice. "Today we are confronted with music which is very different from that of the past; indeed, it is perhaps wrong to apply the term 'music' to what is rather an 'auditory art', which cannot be appreciated through traditional concepts."²⁵

Various non-traditional concepts appear throughout this composition, and figuration of these pieces immediately classifies the work as avant-garde. There are no time signatures, tempo indications or bar lines for "the relative duration of the notes is suggested by their spacing; however, the performer may assume a great degree of freedom in this regard."²⁶ The exclusion of key signatures is not unusual in twentieth-century compositions, nor is the statement in the Preface that "all accidentals refer only to the notes which they immediately precede."²⁷ Multiphonics are used extensively with brackets "used to indicate the outer extremities of multiple note sonorities"²⁸ and instructions are explicit in the initial essay and within the score.

25. Bartolozzi, New Sounds for Woodwinds, p. 64.

26. William O. Smith, Variants for Solo Clarinet (London: Universal Edition, Ltd., 1967), p. unnumbered.

27. Ibid.

28. Ibid.

te

te

te

Fi

Co

Jo

In

De

ex

ni

di

le

The discussion which follows will be concerned with the performing techniques and problems as related to the clarinet.

I

Singing

The initial movement of Variants' six soundpieces utilizes the techniques of linking tones demanding key vibrato to monophonic and/or multiphonic sonorities in various permutations.

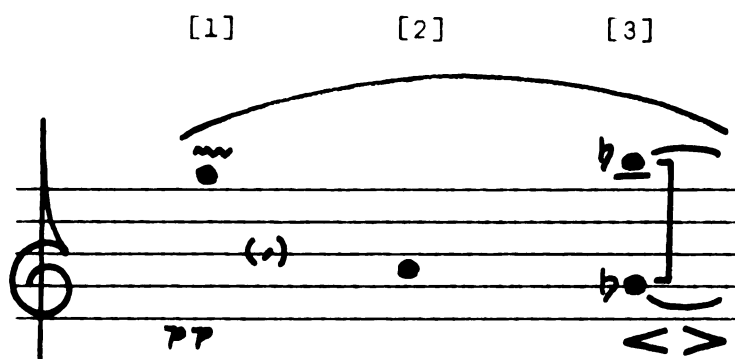


Figure 14. Smith, Wm. O., Variants for Solo Clarinet, I, sonorities 1-3, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. Agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

These sounds are separated by breath marks only, which, due to the lack of measure divisions, demand the adoption of an unconventional mode of citing examples. It will be necessary to refer to each sonority number, beginning with the first tone or sonority of each movement as number one.

Key vibrato "in addition to normal vibrato produced by the lips or diaphragm, ... may be produced by trilling to a note a quarter tone or less below the given tone."²⁹

29. Smith, Variants, p. unnumbered.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Table 4, Key Vibrato

Sonority Number	Notated Tone using Conventional Fingering	Trill with key	Fingering Preference
1	g''	2 or B	Left Hand (2)
5	g ^{b''}	A or 1	Right Hand (A)
10	e''	A or 1	Right Hand (A)
14	b ^{b'}	F and G	Long b ^b w/chrom. g ^{b'}
15	a''	d'' finger	Ring Finger - Right Hand
23	e ^{b''}	1	Only Possibility

None of the key vibratos present performing difficulties; however alternate fingerings from those preferences shown in Table 4 will produce less predominant vibrato effects.

Of the twenty-five sonorities in this movement six use key vibrato, as shown above in Table 4, eight involve multiphonic sonorities, while eleven are traditional monophonics. These monophonic tones represent no problems in themselves, although their placement following or preceding the non-traditional sonorities demands accurate release from and/or preparation for surrounding sonorities. Thus, the inclusion of the monophonics will give the performing clarinetist adequate opportunity to recover and/or adjust for the non-traditional effects.

To produce the multiphonics indicated by the composer, it will be necessary to study the fingerings given in the score, refer to the composer's introductory remarks, and consult the alternate fingerings

pres

most

with

of t

info

clar

find

neti

presented by Bartolozzi³⁰, Heiss³¹ and Rehfeldt³² before determining the most accurate and the easiest fingering for performance. Experimentation with the comparisons mentioned above showed alternate fingerings for each of the eight multiphonic sonorities. The table below summarizes this information, and, although the indicated preferences vary according to clarinet, mouthpiece, reed and physical characteristics, all possible fingerings are included to aid the pedagogical process for each clarinetist.

30. Bartolozzi, New Sounds for Woodwinds.

31. John C. Heiss, "Some Multiple-Sonorities for Flute, Oboe, Clarinet, and Bassoon" (Perspectives of New Music, Fall-Winter 1968), p. 141.

32. Phil Rehfeldt, "Multiphonics for Clarinet" (The Clarinet, vol. 1, no. 1, October 1973), pp. 9-15.

Sonori Number
3
7
8

Table 5. Fingerings for Multiphonic Sonorities

Sonority Number	Notated Multiphonic	Fingering Source				Comments and/or Preferences
		Smith (score)	Bartolozzi	Heiss	Rehfeldt	
3	$g^{b'}-b^{b''}$	$\begin{array}{c} 8 \bullet \\ \bullet \\ 0^5 \\ \hline 0 \\ 0 \\ 0 \end{array}$		1) $\begin{array}{c} 8 \ 0 \\ \bullet \bullet \\ 0 \\ \hline \bullet \\ 0 \\ 0 \\ D(opt) \end{array}$ 2) $\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ 0^5 \\ \hline 0 \\ 0 \\ 0 \end{array}$	$\begin{array}{c} 8 \bullet \\ \bullet \\ 0^5 \\ \hline \bullet \\ \bullet \\ \bullet \\ B \end{array}$	All produce the correct sonority Heiss 1) w/D Preferred
7	$e^{b'}-c'''$	$\begin{array}{c} 8 \ 0 \\ \bullet \bullet \\ \bullet \\ \hline \bullet \\ \bullet \\ \bullet \\ D \end{array}$	$\begin{array}{c} 0 \\ \bullet \bullet \\ \bullet \\ \hline \bullet \\ \bullet \\ 0 \end{array}$		1) $\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \bullet 4 \\ \hline \bullet \\ \bullet \\ \bullet \\ D \end{array}$ 2) $\begin{array}{c} 0 \\ \bullet \bullet \\ \bullet \\ \hline \bullet \\ \bullet \\ D \end{array}$	Bartolozzi produces $C\#'''$ instead of c''' Smith or Rehfeldt 2) Preferred for passage to next sonority Rehfeldt 1) also very good
8	$f'-c''$	$\begin{array}{c} 8 \bullet \\ \bullet \ 0 \\ \bullet \\ \hline \bullet \\ \bullet \\ \bullet \\ D \end{array}$			$\begin{array}{c} 8 \bullet \\ \bullet \ 0 \\ \bullet \\ \hline \bullet \\ \bullet \\ \bullet \\ D \end{array}$	Both same

Sonori
Numbe

11

17

2

"Table 5 (cont'd.)"

Sonority Number	Notated Multiphonic	Fingering Source				Comments and/or Preferences
		Smith (score)	Bartolozzi	Heiss	Rehfeldt	
11	$g^{b1}-e^{b111}$	8 0 ● ● ● <hr/> 0 0 ● D			1) 8 0 ⁶ ● ● ● <hr/> ● ● ● 2) 8 0 ● ● ● <hr/> 0 0 ● D	Smith or Rehfeldt 2) (same)
17	$a^{b1}-d^{b111}$	8 ● 0 0 0 <hr/> 0 0 0			1) 8 0 ⁶ ● ● ● <hr/> ● ● ● D 2) 8 0 ⁶ ● ● ● <hr/> ● ● ●	Rehfeldt 2) Preferred
21	$g^{b1}-f^{111}$	8 0 ● ● ● 4 <hr/> 0 0 0			● ⁶ ● 0 ● <hr/> ● ● 0 C	Rehfeldt Preferred

"Table 5 (cont'd.)"

Sonority Number	Notated Multiphonic	Fingering Source				Comments and/or Preferences
		Smith (score)	Bartolozzi	Heiss	Rehfeldt	
22	e ^{b1} - f ¹¹¹	8 ● ● ● ● 4 — ● ● ●	● ● 0 ● 5 — 0 ● ●		0 ● ● ● — 0 ● ● C	Smith Preferred
25	e ^{b1} - g ^{b11}	8 ● ● ● ● — 0 ● 0	0 ● ● ● — 0 ● 0		0 ● ● ● — ● ● ●	Smith Preferred

Variant I presents a definite challenge to the clarinetist with its frequent use of multiphonics. Experimentation will be necessary to determine personal preferences, but once the inherent difficulties of producing the multiphonic sonorities is mastered and the proper fingering is determined, the performer will be able to produce a unique aural experience for an audience.

II

Aggressive

The second short movement concentrates on the production of multiphonic sonorities by producing conventional monophonic tones and humming simultaneously.

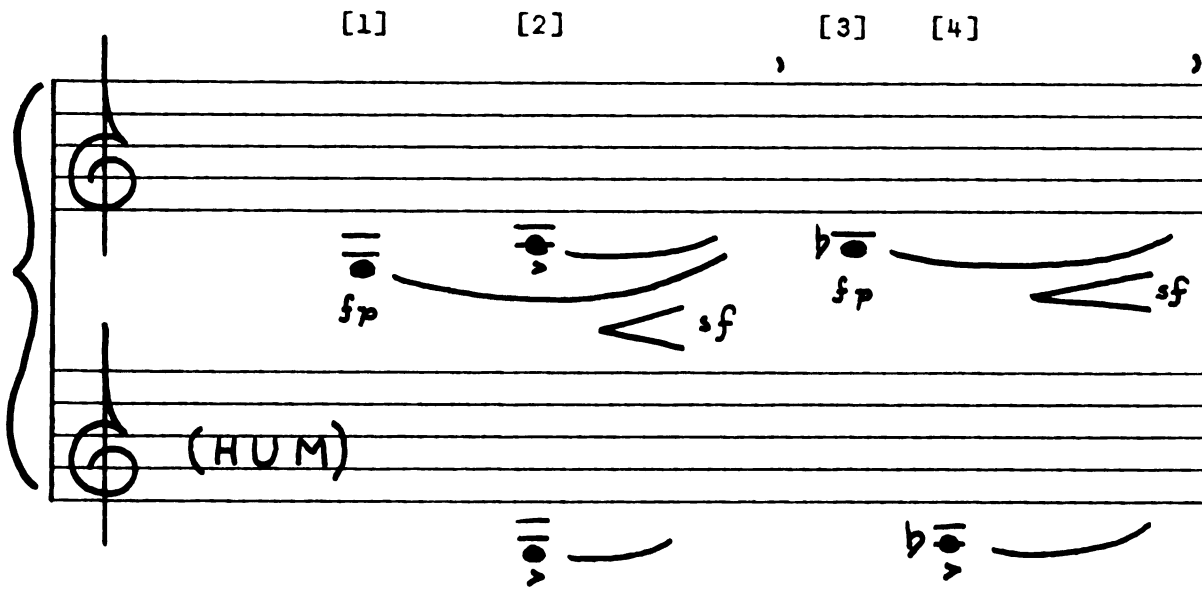


Figure 15. Smith, Wm. O., Variants for Solo Clarinet, II, sonorities 1-4, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

By humming at the same time as playing, double stops may be produced. Very strong beats result from small dissonant intervals, whereas the sound is relatively pure when the intervals are large. Because of the difficulty of controlling the voice at the same time as playing, the hummed part should be relatively simple.³³

Further comments by the composer will be valuable pedagogically to the clarinetist.

Care should be taken that the played tone does not predominate over the sung pitch. Listen carefully to both sounds in order to avoid the tendency for the hummed note to be too weak in volume. The player will find that when two notes form a small interval, rough beats will result, providing an effect resembling flutter tongue.³⁴

The concept of humming while playing does not seem to be a technique familiar to the average clarinetist, and is therefore worthy of further investigation. The primary problem of this movement, humming a pitch

33. Smith, Variants, p. unnumbered.

34. William O. Smith, "Contemporary Clarinet Sonorities" (Selmer Bandwagon, no. 67), p. 13.

other than the one being played, is difficult if the clarinetist is accustomed to adjusting the throat and air pressure for each pitch.

To emit the notated hum at the indicated pitch, the throat must be relaxed beyond the normal concept of an open throat. This in itself is not difficult; however, production of the notated tone on the clarinet now becomes more difficult. Personal experimentation with a very relaxed throat, a guttural hum and considerable air support is suggested to determine the correct manipulation of all aspects of tone production for the proper realization of simultaneous hummed and played tones.

The range of the hummed tones, e^b c^\sharp , will involve few problems for most male voices, but is low for female voices. The composer does not allude to this problem in his introduction nor in any of his other writings about this work. However, it would hardly give the same aural effect if the pitches were hummed an octave higher and the small dissonant intervals were negated.

The performer encounters three additional obstacles in perfecting this music. First, it is difficult to maintain the hummed note at its unchanging pitch when the played notes change. Intense concentration upon the accurate pitch level of the hummed notes is essential to avoid changing to the played notes. Another problem, which may be solved in the same manner, is that of maintaining the hummed pitch when the dynamics fluctuate. Finally, two patterns of multiphonics are produced by simultaneously playing and humming: hummed notes preceded by the same played pitch, and hummed notes preceded by a note other than the hummed pitch. Both examples are illustrated in Figure 15 above. Although the first variety presents no new problems, the second pattern necessitates humming a pitch not heard immediately before. Any clarinetist attempting to perform these

pieces must be quite advanced, and should have achieved an accurate sense of relative pitch on the clarinet. This assures that the necessary physical manipulations produce the proper pitch of the hummed notes.

Because of the complexity of the simultaneous hummed and played notes contained in this movement, the following Table 6 has been included to aid the process of comparison. The multiphonics have been excluded from Table 6 since they are discussed in detail below.

Table 6. Multiphonics by Simultaneous Playing and Humming

Sonority Number	Played Pitch	Hummed Pitch
1	g	
2	a	g
3	b ^b	
4	b ^b	a ^b
6	b	
7	c'	b
8	c'	b
9	e	b
10	c#'	
11	c'	
12	c'	b ^b
13	a	
14	b	
15	b	c#'
16	d'	
18	g	
19	g	a ^b
20	g	f
21	g	e ^b
22	f#	e

Sonorities five and seventeen, which resemble the all-played multi-phonics of Variant I, are the only sonorities which do not use the hum-play effect. In selecting the easiest and most effective fingering for the notated sonorities, the clarinetist encounters the same problems as those in the previous movement. Experimentation by each performer is also needed to determine the best fingerings from the alternatives available.

Table 7. Fingerings for Multiphonic Sonorities

Sonority Number	Notated Multiphonic	Fingering Source				Comments and/or Preferences
		Smith (score)	Bartolozzi	Heiss	Rehfeldt	
5	f#'-c#'''	● 0 0 0 <hr/> ● ● ●		8 0 ● ● ● 4 <hr/> ● ● 0 A	1) 8 0 ● ● ● <hr/> ● 0 2) 8 0 ● ● ● 4 F ● ● ● D	Smith Preferred
17	e ^b '-b ^b ''	● ● 0 0 <hr/> ● 0 ●			1) 0 ● ● ● <hr/> ● ● A 2) ● ● 0 ● F 0 ● ●	Rehfeldt 1) Preferred

III

Nervous

The third movement is longer than either of the first two. It uses the performing techniques of muted notes, interrupted tones and glissandi.

Before a complete discussion of the con sordino effects contained in this movement can be presented, it is necessary to determine the physical properties of a clarinet mute.

Although a mute for clarinet cannot be expected to function like a mute on a brass instrument, it can be highly effective for changes of color. A cork large enough to fit snugly into the bell works well for me.³⁵

Dr. Elsa Ludewig Verdehr³⁶ relates the following descriptive information concerning a cork mute:

General Description: Cork Stopper available from chemical supplier

Dimensions: 1" thick

2" diameter - large end

1 3/4" diameter - small end

Placement: Larger end of mute into bell of clarinet
Mute tilted slightly to avoid complete blockage of bell
Tape guides useful for accurate placement of mute inside bell

Other similar mutes can be constructed from rubber or from 1 3/4" outside diameter cardboard tubing. This tubing should be about 1 1/2" high with one end three-quarters covered with masking tape. This mute can be made to adhere to the inside of the bell by covering the outer rim of the mute with doubled-over masking tape, adhesive side out. Once the

35. Ibid., p. 14.

36. Elsa Ludewig Verdehr, "Telephone Conversation with Dean William Turner", (November 1974).

matte

plora

until

high



Figur
10, 5
Londo
permi



Figure
35, 39
U.S. a

The al

of the

compose

matter of mute preference has been determined, the clarinetist can explore the performing aspects of this movement.

The mute is used for ten of the fifty-six total sonorities and is utilized in two ways: to alter tone color and to facilitate extremely high notes.

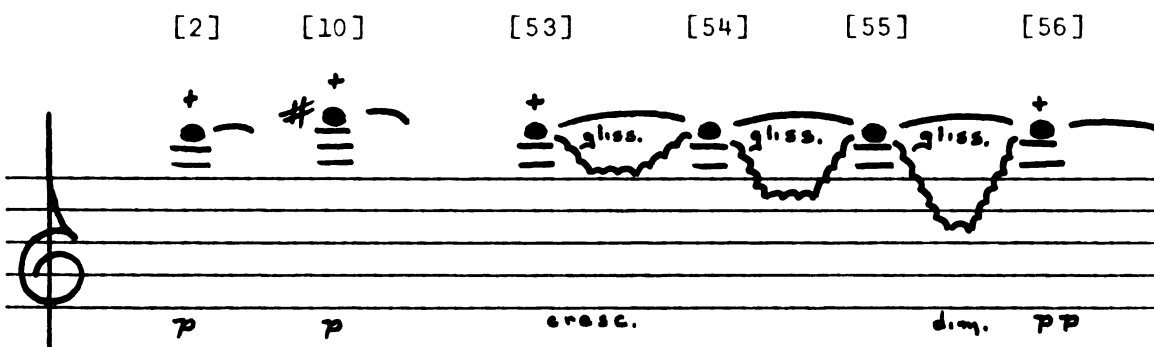


Figure 16. Smith, Wm. O., Variants for Solo Clarinet, III, sonorities 2, 10, 53, 54, 56, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

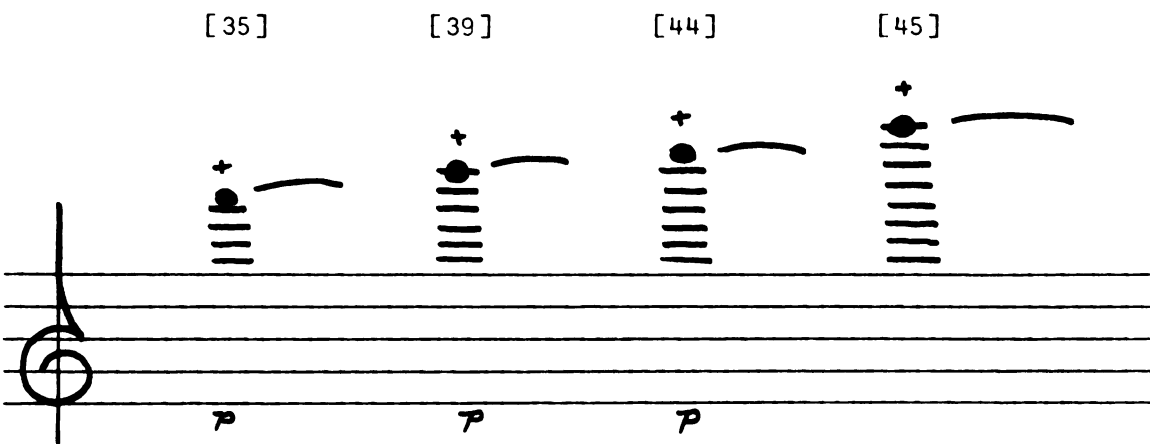


Figure 17. Smith, Wm. O., Variants for Solo Clarinet, III, sonorities 35, 39, 44, 45, Copyright 1967 by Universal Edition (London) Ltd., Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The alteration of tone color is easily accomplished by harmonic generation of the upper partials of *b'* with the fingering discussed on page 45. The composer mentions that "it may be useful to place the teeth directly on

the reed"³⁷ for the production of the high-note sonorities. Based upon experimentation, the following table is presented to clarify the necessary physical manipulations needed to produce the very high tones.

Table 8. Production of Extremely High Notes with Mute

Sonority Number	Notated Tone	Jaw Placement	Lower Lip Placement	Teeth Placement	Air Placement
35	a'''	Foreward	Foreward	Normal - off reed	Support
39	d'''	Foreward	Foreward	Light Teeth - on reed	Support
44	d'''	Foreward -extreme	Foreward	Medium Teeth - on reed	Support
45	a'''	Foreward -extreme	Foreward	Heavy Teeth - on reed	Support

Interrupted tones, as used in fifteen sonorities, are similar to flutter tongue but less aggressive aurally. This is accomplished, according to the composer³⁸, by legato tonguing as rapidly as possible. These interrupted tones are generally begun with a forte-piano, or the piano-interrupted tone is preceded by a sforzando grace-note.

37. Smith, "Contemporary Clarinet Sonorities", p. 14.

38. Smith, Variants, p. unnumbered

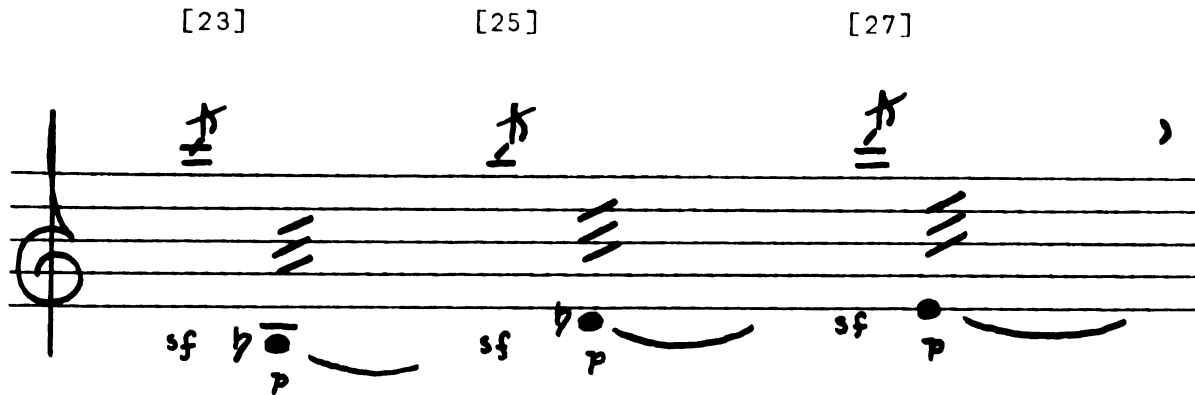


Figure 18. Smith, Wm. O., *Variants for Solo Clarinet, III*, sonorities 23-28, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

Glissandi are used between the last four sonorities.

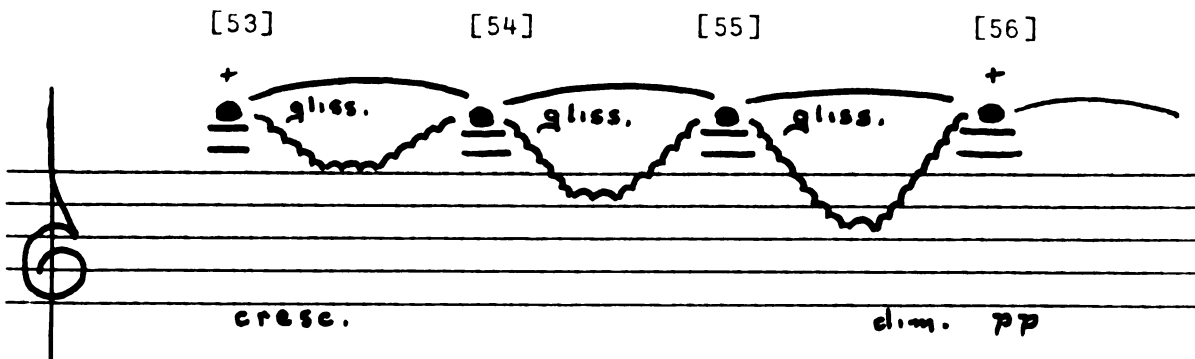


Figure 19. Smith, Wm. O., *Variants for Solo Clarinet, III*, sonorities 53-56, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

All glissandi are produced from a muted d''' by the lips alone and should not exceed the notated extent of the glissandi downward.

An apparent error in the score discovered in the course of this research deserves mention at this time. A performance footnote indicates that all muted notes are to be produced with the following fingering:

$$\begin{array}{r}
 7 \\
 0 \\
 0 \ 0 \\
 \hline
 0 \\
 02 \\
 0 \\
 0
 \end{array}$$

This conflicts with the composer's instructions which state "it is necessary to devise fingerings covering a maximum number of holes to obtain the best effect from the mute."³⁹ These comments refer to the composition under study and include a fingering for the muted notes which is quite different from the one presented in the score.

$$\begin{array}{c}
 \bullet \\
 \bullet \\
 \bullet \\
 \hline
 \bullet \\
 \bullet \\
 \bullet \\
 B
 \end{array}$$

Experimentation with both fingerings indicates that the one given immediately above is correct.

One other technique utilized in this movement is the change of timbre in tones six and seven.

39. Smith, "Contemporary Clarinet Sonorities", p. 14.

[6] [7]

p **ff** **pp**

8 •	7
•	8 0
•	0
•	I 0
•	0
•	0
•	0
C	0

Figure 20. Smith, Wm. O., Variants for Solo Clarinet, III, sonorities 6, 7, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

This change of color is accomplished with the alternate fingerings given in the score and presents no particular performing problems. However, the performer needs to pay particular attention to the breath marks as indicated by the composer. He allows the clarinetist great freedom in all other respects.

Most of the effects discussed above are not especially difficult for the clarinetist, but they do require experimentation and frequent repetition for accurate performance. Aural perception problems and accurate teeth placement do make the extremely high notes difficult to play.

IV

Tranquil

The fourth movement of Variants for Solo Clarinet uses trilled-multiphonics and non-trilled monophonics followed by non-trilled multiphonics.

The trilled multiphonics are divided into two basic categories: those with trills on the lowest notes of the multiphonic and those with trills on the highest note of the multiphonic. "Tremolos or trills played in the lower register while relatively constant pitches are sustained in the upper register result in a smooth, expressive vibrato effect on the upper note."⁴⁰

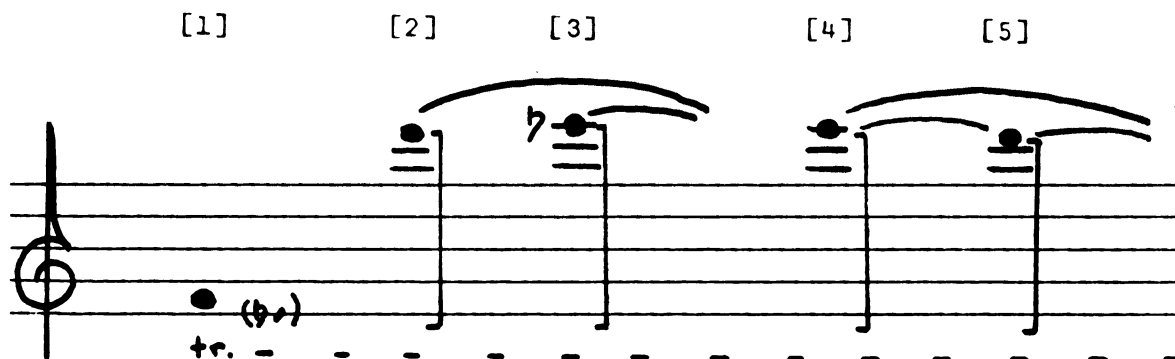


Figure 21. Smith, Wm. O., Variants for Solo Clarinet, IV, sonorities 1-5, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

This technique is found in thirteen of the twenty-four total sonorities while the reverse procedure is used in five instances within this movement.

40. Ibid., p. 13.

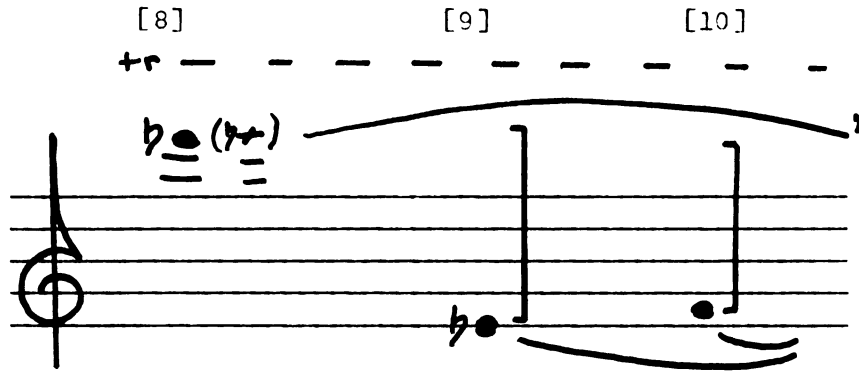


Figure 22. Smith, Wm. O., Variants for Solo Clarinet, IV, sonorities 8-10, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The production of these multiphonic trills, whether above or below, demands the same delicate control of embouchure, throat, jaw placement and air pressure as all previous multiphonic sonorities. However, the inclusion of trills increases the performing problems because the playing position for the trilled multiphonics is less stable than that for the non-trilled multiphonics. The following suggestions will provide a starting point for individual experimentation:

1. Relax the embouchure more than when producing a conventional clarinet tone.
2. Maintain a very relaxed throat position.
3. Use a more forward jaw placement than that used in a normal playing position.
4. Make the air pressure as light as possible, the dynamics piano except for the four multiphonic trills, with all tones having a sub-tone quality.

Personal experimentation failed to determine alternate fingerings for several trills, especially those using the register key.

A summary of these multiphonic trills follows to show their structural complexity and performance intricacies.

Table 9. Multiphonic Trills

Sonority Number	Sustained Tone	Trilled Tones	Finger or Key Trilled With
2	d ^{b'''}	f'-e ^{b'}	Key 8
3	e ^{b'''}	f'-e ^{b'}	Key 8
4	e ^{'''}	f'-e ^{b'}	Key 8
5	d ^{'''}	f'-e ^{b'}	Key 8
9	e ^{b'}	d ^{b'''} -e ^{b'''}	First finger - Right Hand
10	f'	d ^{b'''} -e ^{b'''}	First finger - Right Hand
13	g ^{b'}	b ^{b'''} -c ^{b'''}	Second finger - Left Hand
14	f'	a ^{'''} -c ^{b'''}	Second finger - Left Hand
15	f ^{#'''}	e'-c ^{#'}	Key 8
16	e ^{'''}	f ^{#'} -e'	Key 8
17	d ^{#'''}	f ^{#'} -e'	Key 8
18	f ^{'''}	e ^{b'} -c'	Key 8
21	b ^{'''}	c'-d ^{#'}	Key 8
22	a ^{'''}	c'-d ^{#'}	Key 8
23	b ^{b'''}	a-d'	Third finger - Left Hand
24	c ^{'''}	g-d'	Third finger - Left Hand

The six sonorities not contained within or preceding trilled multiphonics are those non-trilled multiphonics following non-trilled monophonics.

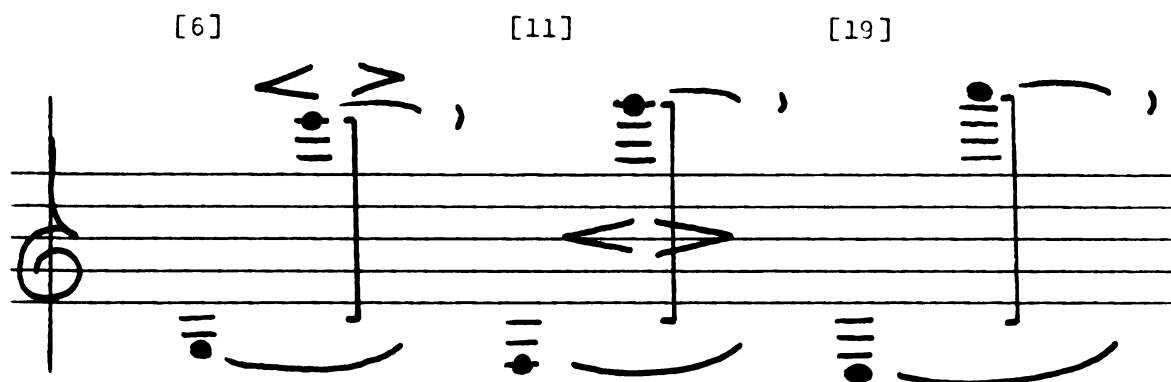


Figure 23. Smith, Wm. O., Variants for Solo Clarinet, IV, sonorities 6-7, 11-12, 19-20, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

Bartolozzi⁴¹ categorizes these sonorities as linking monophonic and multiphonic sounds. He states that this is accomplished without changing the fingering but by "applying the various embouchures and blowing techniques."⁴² These techniques have been discussed above. This principle is simple when the upper tone is a natural harmonic of the lower fundamental, as in sonorities eleven-twelve, but it is more difficult when the upper tone does not correspond to the natural overtone series. In sonorities six-seven and nineteen-twenty the upper tone, though not within the natural harmonic series, can be produced with the score-indicated fingerings, and necessary half-step lower pitches from the natural harmonic are possible if the throat is relaxed and the jaw is placed forward of its normal playing position.

Tranquil, despite its title is not an easy movement to perform. The clarinetist must utilize multiphonic skills with a more delicate control than have been demanded previously. The trilled sonorities must be established quickly if they are to be maintained and understood aurally. Smith, in this movement, has expanded the multiphonic concept through a series of trills, producing a more interesting auditory phenomenon.

41. Bartolozzi, New Sounds for Woodwinds, p. 36.

42. Ibid., pp. 36-37.

V

Brilliant

This movement utilizes fifty-two monophonic sonorities - far more than all of the other movements of this composition combined. A harmonic, two multiphonics and five monophonic trills with glissandi account for the remaining sonorities.

The monophonic tones are reminiscent of the first and final movements of Five Pieces for Clarinet Alone, see Chapter II, with the grouping of notes by twos and threes in a pointillistic manner.

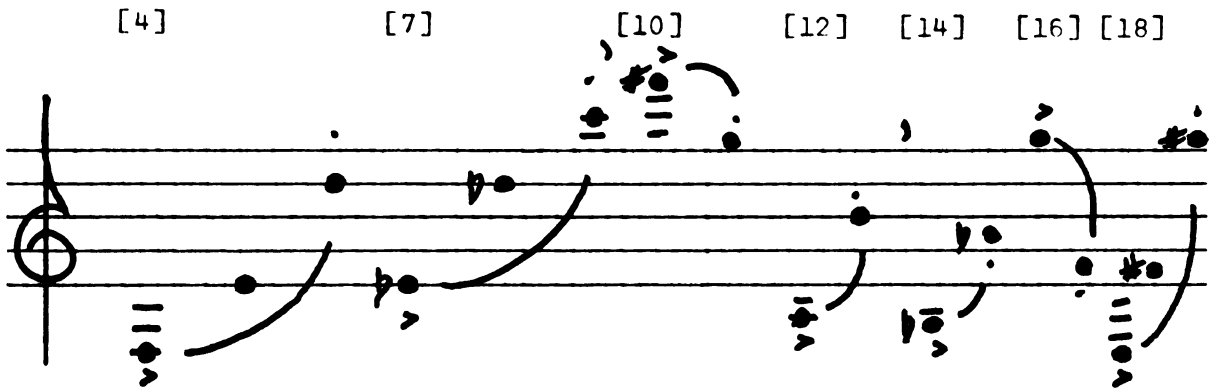


Figure 24. Smith, Wm. O., Variants for Solo Clarinet, V, sonorities 4-20, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The composer states in a performing footnote: "...in this piece all notes slurred in groups of two or three should be played very fast."⁴³ If the clarinetist gives particular attention to the breath marks, the short last note of each group and a slightly slower tempo for sonorities ten to thirteen and forty-three to fifty-one, he can avoid a stilted performance.

The initial sonority of this movement is a harmonic g² produced by fingering e. Although this is not a part of the natural overtone series,

43. Smith, Variants, p. unnumbered.

the production of a g'' instead of the fifth partial of e , $g\sharp''$, is possible considering the necessity of relaxing the embouchure and throat, moving the jaw forward, and by using light air pressure accompanying the composer's indicated fingering. Careful placement of these elements is essential to maintain a monophonic sound, once it is achieved, without permitting it to slip into a multiphonic sonority.

The movement's final tone, a multiphonic $e-g''$, must be avoided when attempting to produce the first sound in this movement. Although the basic method of attack is the same for the first and last sonorities, it is suggested that a "HA" attack will initiate the final sonority more easily. The remaining problem is to maintain every physical manipulation needed for the continuation of the multiphonic following the attack. The other multiphonic, $d''-d'''$, can be simplified by using the performing techniques discussed above for Variant III. This entails the use of very light teeth pressure directly on the reed to help the upper note speak.

The trilled monophonic tones are preceded and/or followed by glissandi.

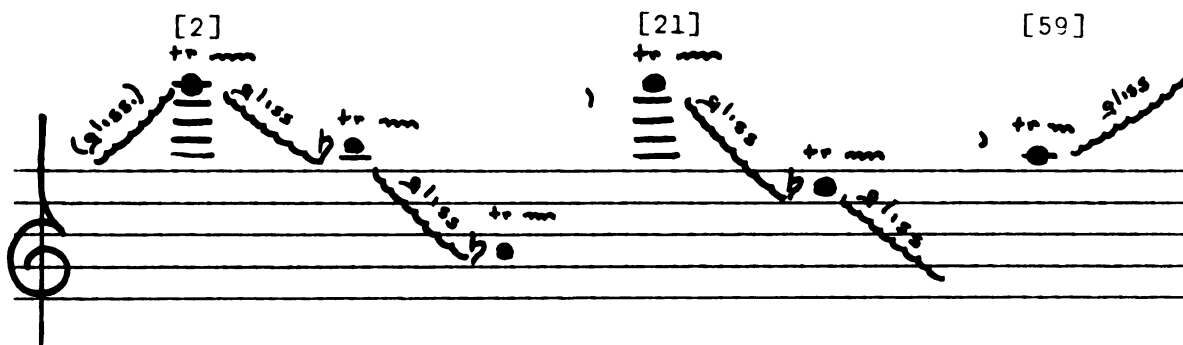


Figure 25. Smith, Wm. O., Variants for Solo Clarinet, V, sonorities 2-4, 21-22, 59, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

Glissandi use lips and fingers combined, and resemble the smear effect of jazz-oriented performance. The inclusion of high tessitura trills in sonorities two and twenty-one require unusual fingerings.

Sonority two - b'''-c''' trill

Sonority twenty-one - a'''-b''' trill

6
8 ●
● ●
0^{tr}
—
●
●
0

8 0
● ●
●4^{tr}
—
0
0
0

Brilliant introduces no new material, but merely elaborates upon techniques previously introduced. Therefore, the clarinetist has the opportunity to further refine techniques discovered in earlier movements.

VI

Dramatic

The concluding movement of Variants for Solo Clarinet presents the following performing problems for the clarinetist; flutter tongues, glissandi, changes of color, harmonics, multiphonics, multiphonic tremolos, key clicks and traditional monophonic tones.

The flutter tongue was not a new technique at the time this work was composed, though it is not a common element in previous clarinet literature. Some historical comments will be presented in the next chapter concerning flutter tongue. Although the performer attempting this composition will probably have encountered this technique in previous clarinet literature and have mastered the technical application, a brief discussion of the matter serves as a review. Flutter tongue requires that the tongue vibrate very quickly against the reed by means of a fast, intense stream of air. This creates the sound of a trilled letter R and yields an

aggressive, harsh, rapid tongue sound when the effect is played on the instrument. Many clarinetists encounter no difficulty in producing this effect, but some individuals find the flutter tongue extremely difficult due to their inability to roll R's. Perhaps the use of the glottis as in gargling will prove effective.

The glissandi used in this movement resemble the lip and finger glissandi of Variant V, but the glissandi in Variant VI are preceded by flutter tonguing, and, with their less extreme range, do not further challenge the performer.

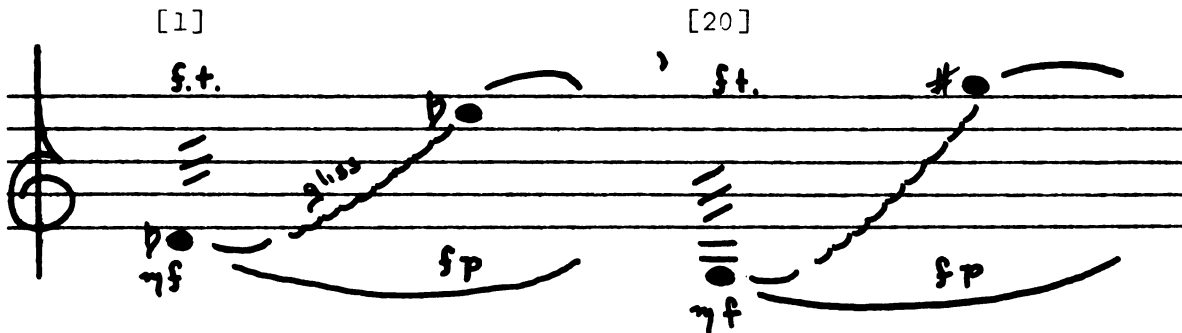


Figure 26. Smith, Wm. O., Variants for Solo Clarinet, VI, sonorities 1-2, 20-21, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

Changing the color or timbre of a sound is achieved by using different fingerings during the playing of a single sound with one breath.

"Thus the sound, though interrupted, varies in color..."⁴⁴

44. Bartolozzi, New Sounds for Woodwinds, p. 22.

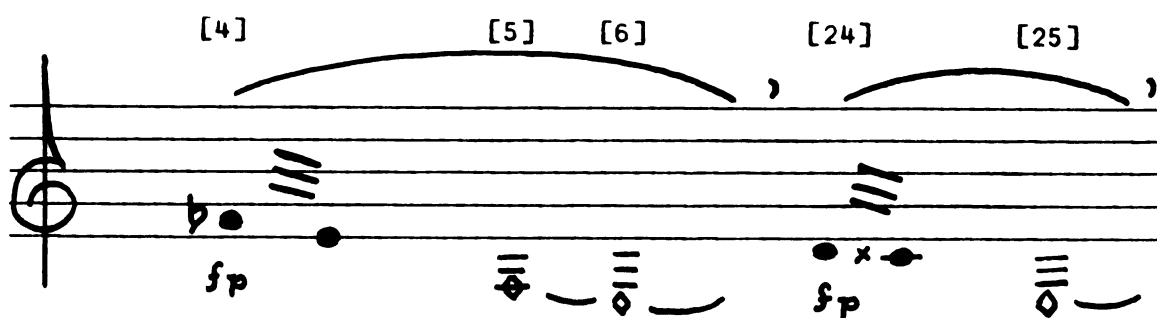


Figure 27. Smith, Wm. O., Variants for Solo Clarinet, VI, sonorities 4-6, 24-25, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

The tremolos as cited above use fingerings which produce microtonal alterations of pitch. A quarter-tone type of notation, as used by Bartolozzi⁴⁵, would give a more obvious indication of the pitch alteration than the conventional notation used by the composer. Nevertheless, the pitch alterations or changes of color occur with the addition of key C, 2 or B as shown in the table below.

Table 10. Changes of Color

Sonority Number	Tremolo Sonority Altered	Key Added for Alteration	Description of Alteration
5	f ^{b'} -e'	C	Dark
6	f ^{b'} -e'	2	Closed
25	d'-c ^x	B	Dark

The harmonics for two sonorities are similar to some of those encountered previously, and are, consequently, produced in a similar manner. The performance of sonority seven, d^{'''}, can be simplified by placing the teeth with moderate pressure on the reed, back from a normal overbite position.

45. Ibid., p. 25.

1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

3. The third part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

4. The fourth part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

5. The fifth part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

6. The sixth part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

7. The seventh part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

8. The eighth part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

Production of this sonority is further complicated, however, because it is necessary to adjust for the indicated multiphonic which follows.

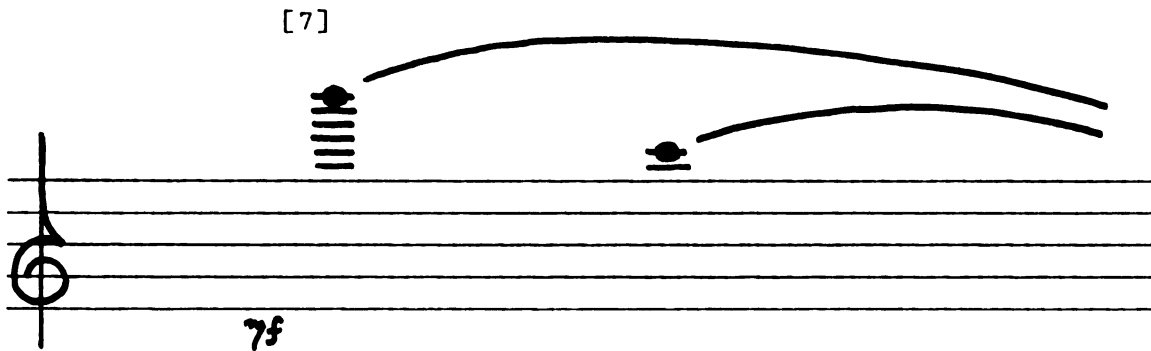


Figure 28. Smith, Wm. O., Variants for Solo Clarinet, VI, sonorities 7-8, Copyright 1967 by Universal Edition (London) Ltd., London, Sole U.S. agent: Joseph Boonin, Inc., Hackensack, NJ, Used by permission.

Once the d^{'''} has been achieved, a subtle manipulation of lip pressure replacing teeth pressure is necessary to produce the d^{'''}, c^{'''} multiphonic. Extensive experimentation is necessary to determine the maneuver needed to retain the upper tone while instigating the lower tone.

Multiphonic tremolos are utilized for eight sonorities as shown below.

Table 11. Multiphonic Tremolos

Sonority Number	Multiphonic Tremolos		Fingering in Score Adequate
	Lower Tones	Upper Tones	
11	b-d ^{#'}	f ^{#''}	Yes
12	d'-f'	f''-a ^{b''}	Yes
13	d'-g ^{b'}	f''-b ^{b''}	Yes
14	d'-f'	f''-a''	Yes
22	c ^{#'} -d'	g ^{#''}	Yes
26	f ^{#'} -(e')	b''-a''	Yes
27	f'-(e')	b ^{b''} -a''	Yes
28	g'-f'	c''-a''	Yes

The multiphonic tremolos shown above can be easily produced if the clarinetist relaxes his throat and embouchure, aims the air down, pushes the jaw forward, and keeps the tremolo rather slow. Even though the score does not indicate a pitch change in the lower notes of sonorities twenty-six and twenty-seven, the lower note e' is produced in both cases and should be properly notated in the score.

The key clicks for sonorities twenty-nine to thirty-two are "used as a solo percussive effect while sustaining"⁴⁶ the multiphonic tremolo for sonority twenty-eight. The percussive effect with key B for the indicated e is much more effective than the nearly inaudible key click with the D key.

The use of six monophonic notes involves no particular performance problems.

The clarinetist faces a formidable challenge in attempting to perform this music. The various techniques demand extensive experimentation, and the reliability of the sonorities in performance is extremely tenuous. However, it appears that the multitude of avant-garde sounds will provide an audience with a great variety of aural experiences if performed in a small room. This intimate atmosphere is needed due to the subtle nature of several of the sonorities and the extensive dynamic contrasts required.

46. Smith, Variants, p. unnumbered.

Summary

Variants for Solo Clarinet is an unusual composition when compared with the main body of available clarinet literature.

Periodically, in the long and continuous progress of the art, new developments and ideas appear which, in turn, allied with the compositional processes, serve to shape, define and prepare the way for further development. That new ideas are only gradually assimilated into the inevitable lexicon of popular acceptance is a matter of record. With the development of the instrument [clarinet] itself, it is interesting to observe the hundred years between the Denner invention, and, the consummate technical achievement of Anton Stadler, sufficient for the Mozart Concerto ... Although speculative, it is indeed possible that the production of simultaneous multiple pitches on woodwind instruments will, in subsequent years, create another such situation.⁴⁷

Regardless of the aesthetic value of the various soundpieces which make up this composition, the clarinetist must master the various techniques if he wishes to perform them. Since music, as an art, is continually expanding and exploring new avenues of expression, the performing clarinetist must study, experiment with, and conquer these techniques in the event that they become essential to the performance of future twentieth-century compositions for clarinet.

CHAPTER IV











FANCIES for CLARINET ALONE

By William O. Smith

Publisher: MJQ Music, Inc., New York (1972)



Performance time: c. 6 1/2 minutes

Range: e - a^{b^{'''}}

Movements:	I	3/4	 =c.	88
	II	3/4, 4/4	 =c.	100
	III	4/4	 =c.	72
	IV	3/4	 =c.	88
	V	4/4, 3/4, 5/4	 =c.	92
	VI	3/4	 =c.	100
	VII	4/4, 3/4, 5/4	 =c.	69
	VIII	4/4	 =c.	63
	IX	4/4	 =c.	76
	X	4/4	 =c.	100

Fancies for Clarinet Alone, the third composition included in the present investigation, has many unique characteristics which deserve some general evaluation before each movement is discussed separately.

As noted in the previous chapter, an explanatory preface is invaluable to the performer's accurate realization of these compositions, and such introductory remarks are included in this work. The instructions contained therein are detailed, and will be discussed with the appropriate individual movements.

The movements are untitled, but are identified by a Roman Numeral indication for each of the ten short soundpieces. Each study has a tempo indication which varies from  =63 to  =100. The time signatures show only two measures from a total of 126 in 5/4; fifty-one measures are in

3/4 and seventy-three measures are in 4/4. The concise nature of each movement, from nine to sixteen measures in length, results in an average of thirty seconds playing time per study.

All notation is of a traditional mode, for, as the composer notes:

In order to minimize the difficulties of the performer in learning to play multiphonics, I have used conventional notation. It is expected, however, that the player will have the option of taking extra time during the attack of sonorities which do not readily speak and of generally using a rather rubato style.⁴⁸

But conventional notation is inadequate to show the composer's intentions considering the performing problems.

Since the intonation will vary somewhat according to the instrument, mouthpiece and reed, I have only rarely indicated microtonal pitch deviations. Inner pitches of multiphonics are indicated only where they are apt to be prominent. The performer need only concern himself with the control of the outer pitches.⁴⁹

I

The organization of the initial study produces maximum emphasis on the innovative material. Two simultaneous melodies are used throughout the movement with the third partial beginning each sonority. By quickly releasing the register key, a short synchronous fundamental is produced.

48. Smith, Wm. O., Fancies for Clarinet Alone, (New York: MJQ Music, Inc., 1972), p. unnumbered.

49. Ibid.

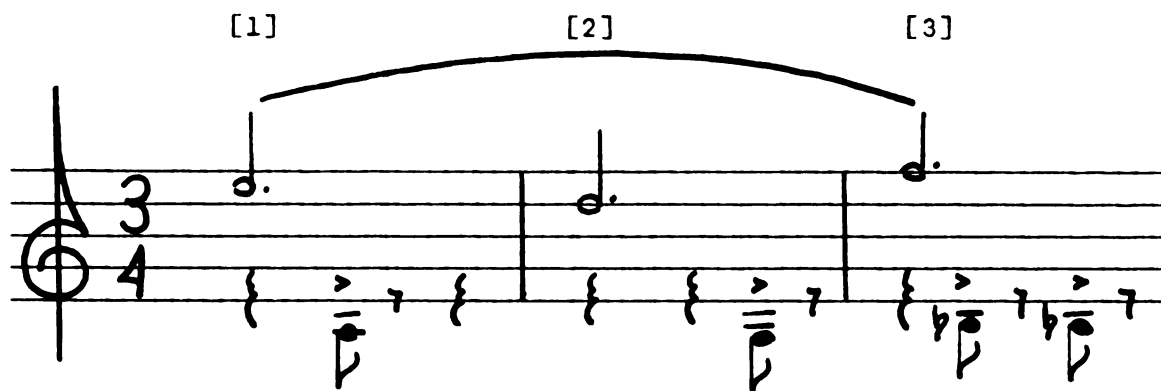


Figure 29. Smith, Wm. O., Fancies for Clarinet Alone, I, measures 1-3, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The lower or fundamental melody contains only six different tones, while the upper or third partial melody has a corresponding number. The six notes of the upper melody are presented in measures one to six and, in retrograde, in measures seven to fourteen with the final note extended rhythmically for two extra measures. The fundamental melody follows the pattern described above, although the sixth note is not presented in the retrograde statement.

The rhythm of the upper melody is extremely static with dotted-half notes predominating while the rhythm of the lower melody consists of three basic patterns; $\{ \text{♩} \text{ } \text{ } \}$, $\{ \text{♩} \text{ } \text{ } \}$, $\{ \text{♩} \text{ } \text{ } \}$ which are manipulated in a rather interesting pattern shown in the following table.

Table 12. Fundamental Melody's Rhythmic Organization

Measure Number	Rhythm Number
1	1
2	2
3	3
4	2
5	3
6	1
7	None
8	3
9	1
10	2
11	2
12	None
13	(1)
14	(2)

As revealed in Table 12, the rhythmic patterns are repeated three times in order by omitting the first pattern in the preceding pattern and placing it at the end each time. Thus, a pattern of 1-2-3, 2-3-1, 3-1-2 is formed.

According to the composer "one of the first (hitherto unexplored clarinet colors) that I found (and perhaps the least difficult to play) produces two notes an octave and a fifth apart."⁵⁰ No attempt is made to explain the acoustical phenomenon behind this or other multiphonic possibilities; however, the production of the odd partials above the fundamental is basic to the acoustical nature of the clarinet.

The suggestion by Mr. Smith that this is "perhaps the least difficult to play"⁵¹ deserves further consideration in this investigation. The

50. Smith, "Contemporary Clarinet Sonorities", p. 12.

51. Ibid.

Bandwagon article⁵² and the remarks by the composer in the preface⁵³ indicate that this effect, though less difficult to produce than some other multiphonic sonorities, can only be accomplished with continued experimentation and practice by the conventionally trained clarinetist. To produce the fundamental following the initial third partial:

the player releases the register key quickly enough not to lose the upper tone. One must remember that this effect can only be played very softly. It is possible, but extremely difficult, to sustain the two tones simultaneously. The beats that result can be quite interesting. The player will find that the speed of these beats can be regulated by the amount of air used.⁵⁴

Heiss⁵⁵ mentions that multiple-sonorities are best achieved by blowing between the two notes. Personal experimentation shows that these particular sonorities, considering the pianississimo dynamics, can be produced more easily by blowing or voicing for the fundamental as it occurs.

This study demands with the desired sonorities an immediate awareness of the fact that the resulting tone quality is not compatible with qualities the traditional clarinetist has been taught to produce.

II

The second movement contrasts with the first in many aspects of its organization. Whereas the initial study was interrelated in several ways, this study contains imitation without significant repetition. The single instance of melodic duplication occurs between measures three-four and thirteen-fourteen.

52. Ibid.

53. Smith, Fancies, p. unnumbered.

54. Smith, "Contemporary Clarinet Sonorities", p. 12.

55. Heiss, "Some Multiple-Sonorities", p. 137.

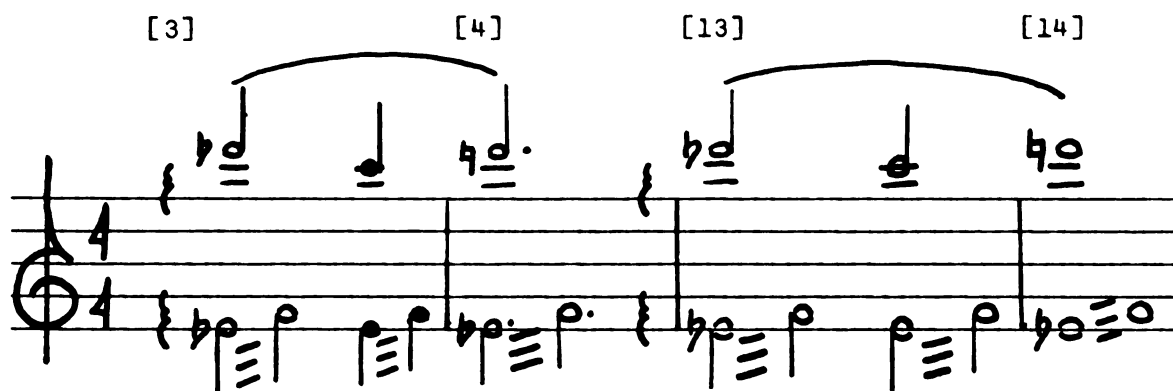


Figure 30. Smith, Wm. O., Fancies for Clarinet Alone, II, measures 3-4, 13-14, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Even though there are no examples of rhythmic repetition within this study, the instances of melodic and rhythmic imitation are too numerous to emphasize with specific examples.

The basic precept of the first movement, the presenting of a single innovative idea in a study, is continued in this movement. In this case it involves the use of two simultaneous melodies, one in the lower range of the clarinet, $a^b-f^\#$, and the other in a contrasting higher range, $c'''-f'''$

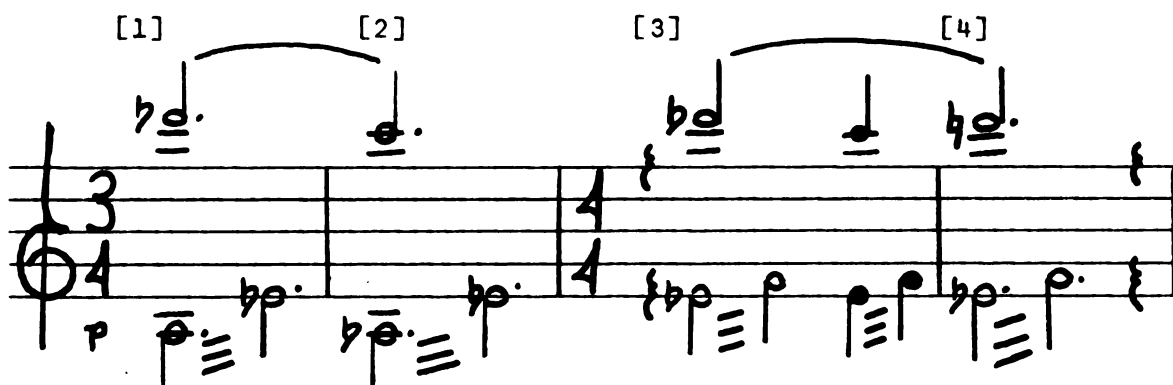


Figure 31. Smith, Wm. O., Fancies for Clarinet Alone, II, measures 1-4, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The first study also uses two simultaneous melodies, however, only one of the melodies in this movement, the lower one, contains tremolos exclusively.

The upper melody is a single, sustained tone which has a vibrato effect due to the concurrent lower melody.

The composer's preface gives the performer only limited information, and this necessitates further personal experimentation. The inclusion in the score of fingerings for every tone provides the performer the basic information to begin work.

The tremolos are often awkward, especially those involving the register key, but all attempts to determine alternate fingerings proved futile. The composer suggests⁵⁶ that each line of the composition be practiced separately to ascertain the accuracy and evenness of each indicated tremolo before trying to render both melodies simultaneously. This is a successful pedagogical procedure, and enables the clarinetist to determine that easier tremolos must be played at a slow enough speed to match the speed of the tremolos using the register key.

In playing the melodies simultaneously the performer will find that the essential soft dynamic must coincide with several non-traditional playing techniques. The embouchure must be relaxed beyond the point of producing a traditional tone, and the throat must be consciously expanded beyond the normal performing requirements. The embouchure, opening of the throat and subsequent light air pressure are all extremely delicate matters which will demand experimentation by the individual performer due to the highly unique, personal nature of the matter and the inherent difficulty of accurately communicating physical sensations.

56. Smith, Fancies, p. unnumbered.

Even though it was rejected as a solution in the discussion of the previous movement, the suggestion by Heiss⁵⁷ that multiple-sonorities are best achieved by blowing between the outer extremities of the indicated pitches has proven to be a valid recommendation here.

The patience demanded of the performer in preparation of this study is equal to or beyond that required in the movement discussed immediately above, but the results are not difficult to attain accurately through perseverance and proper attitude.

III

This study is one of the shortest, containing only nine measures, but one of the most innovative. Any student of twentieth-century music will hardly be surprised by a concise musical statement, but a wind instrumentalist will find any composition requiring the simultaneous production of a played tone and a hummed pitch quite unusual and challenging.



Figure 32. Smith, Wm. O., Fancies for Clarinet Alone, III, measures 1-4, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

57. Heiss, "Some Multiple-Sonorities", p. 12.

The reader of this document will not be unaware of this technique, remembering the similar demands of the second movement of Variants for Solo Clarinet discussed above.

Before examining the performance aspects of this movement, it will be worthwhile, pedagogically, to investigate the organizational structure of it. The lower printed line, the hummed part, retains a constant e throughout with the rhythm basically extended by one measure every two measures. The following table, which provides a graphic representation of this information, will establish a source of reference for the discussion which follows regarding the upper line.

Table 13. Rhythmic and Melodic Organization

Measure Number	Lower Part		Upper Part	
	Melody	Rhythm	Melody	Rhythm
1	e		e, c#, d'	
2	e		d, c#, d', c'	
3-4	e		d, d', c#, f#, g	
5-6	e		e, a, b, a#	
7-9	e		e, a, b, a#, g#	

The upper printed line, to be played on the clarinet, is divided melodically into two unequal parts. The first, measures one to four, extends the initial e, c#, d' to include a c' in measure two, and rearranges these three notes to e, d', c# before expanding the pattern with f# and g. The second part, measures five to nine, uses the melody and the rhythm of measures five to six in measures seven to eight before extending it in measure nine by a whole-note g#. Measures three, five and seven add rhythmic unity through repetition.

The above analyzed structure is reminiscent of Study I in its use of repetition to intensify the innovative material in the movement.

The clarinetist is faced with performing challenges similar to those discussed in the preceding chapter, but he will find this particular example of hum-play material less complex in several ways. This study utilizes the hum-play technique exclusively, and all hummed notes are heard on the clarinet immediately before their initiation as a hum. Also, as mentioned and illustrated above, all the hummed notes are identical.

The practice and performance suggestions presented in Chapter III will be extremely useful in the clarinetist's approach to this movement, while the composer's remarks in Fancies' preface further solidify the correct manner of performance.

Humming while playing ... opens up many double stop possibilities. The utmost concentration on the voice part will be found necessary to avoid slight deviations in pitch. In measure four it will be seen that small intervals result in prominent beats.⁵⁸

Even though this technique has been discussed previously, due to its innovative nature it will be beneficial to review the necessary steps to adequately solidify the correct procedure for realizing the notated sonorities. To produce the hum at the correct pitch, low for the normal female voice, the clarinetist must initiate and maintain an extremely relaxed throat. This makes the hum possible, but it also makes it difficult to produce the desired sonority on the clarinet. Careful manipulation of the throat will result in the proper degree of expansion necessary to accomplish these simultaneous sonorities, but once the initial sonority is produced, the performer faces the challenge of changing notes in the

58. Smith, Fancies, p. unnumbered.

upper, played part while maintaining the tone in the lower, hummed part. This is an extremely difficult technique to master due to the strong desire to vocalize the note being played on the clarinet rather than the tone notated for humming. As the composer mentioned in the preface, the hummed tones demand ultimate concentration to produce and maintain without pitch deviations.

The result is a very unusual effect with the strong beats produced by small intervals between the parts giving an effect not unlike a flutter tongue. Further complications are encountered when the indicated crescendos and diminuendos are attempted, since the necessary increased air pressure demands a consequent manipulation of the throat and an even stronger concentration upon the pitch of the hummed part.

The patience required of the first two studies must be continued through the study and practice of this movement, but will result in a unique experience for the performer as well as the audience.

IV

The organization and concept of the fourth study are similar in many ways to Study II. Whereas the second study has tremolos in the lower register simultaneous with sustained pitches above, this movement reverses the pattern with the trills in the upper notes and the synchronous lower notes sustained.

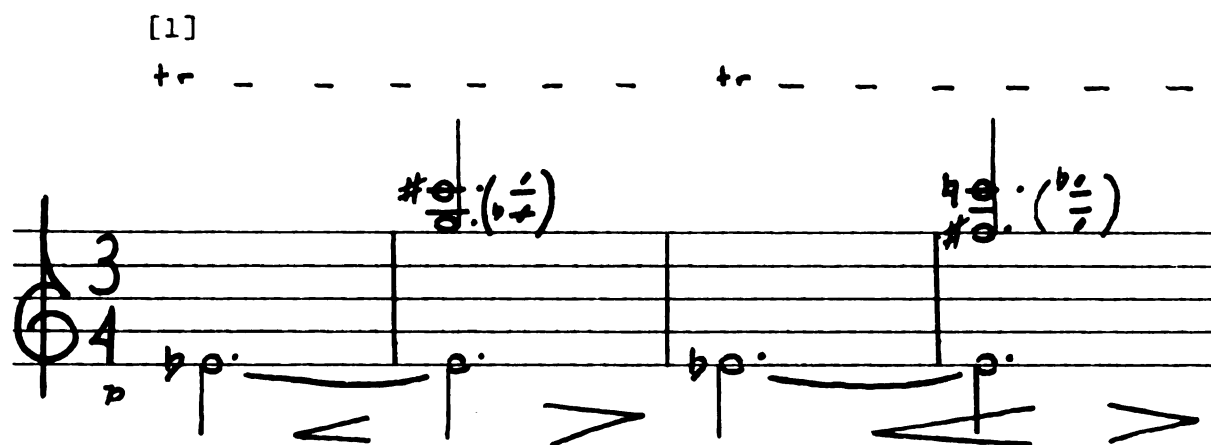


Figure 33. Smith, Wm. O., Fancies for Clarinet Alone, IV, measures 1-4, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The unvaried tones in both movements, II and IV, have a slight, pleasant vibrato.

The melodic organization of the movement can best be shown by the following table:

Table 14. Rhythmic and Melodic Organization

Measure Number	Lower Part		Upper Part	
	Melody	Rhythm	Melody	Rhythm
1-2	e ^{b1} e ^{b1}	d. d.	g ¹ , c ¹¹¹	- d.
3-4	e ^{b1} e ^{b1}	d. d.	F ^{#1} , c ¹¹¹	- d.
5-6	e ^{b1} e ^{b1}	d. d.	g ¹ , c ¹¹¹ ; f ^{#1} , c ¹¹¹	d. d.
7-8	e ¹ e ¹	d. d.	c ¹¹¹ , f ¹¹¹ ; a ¹ , e ^{b111}	d. d.
9-10	f ^{#1} f ^{#1}	d. d.	a ¹¹¹ , e ¹¹¹	d. d.
11-12	e ^{b1} e ^{b1}	d. d.	g ¹ , c ¹¹¹	- d.
13-14	e ^{b1} e ^{b1}	d. d.	g ^{#1} , f ¹¹¹	- d.
15-16	e ^{b1} e ^{b1}	d. d.	f ^{#1} , c ¹¹¹ ; g ¹ , c ¹¹¹	d. d.

As can be seen above, the lower part uses only three different tones with e^b predominant. The upper part uses the g'' , c''' sonority in measures two, five tied to six, twelve and sixteen; the f'' , c''' sonority in measures four, six and fifteen tied to sixteen; with the other sonorities used only once each. The order of appearance of the g'' , c''' sonority and the f'' , c''' sonority is repeated immediately following its initial statement and again in paired retrograde as the final notes of the upper part.

This movement uses a single, innovative idea throughout. In addition, the precept of two separate but simultaneous parts is reminiscent of ideas in Five Pieces for Clarinet Alone. The desired effect of two simultaneous voices is more obvious in the composition currently under study.

Production of multiphonic sonorities of any kind is difficult for any conventionally-trained clarinetist, and the current problem of moving from monophonic to multiphonic sonorities presents unique challenges. Creation of the monophonic tones is not difficult with the fingering indicated in the score, however, the performer must take great care to play the monophonics very softly to emit the necessary sub-tone effect and avoid having the multiphonic sonorities speak too soon. This can be accomplished by following the composer's directions in the preface⁵⁹, and by bringing the jaw slightly forward to facilitate the upper notes.

A performer must also be careful to connect the adjoining multiphonic sonorities without losing the continued tones. This will be easier if all aspects of the first multiphonic, embouchure, air pressure and throat position, are maintained for the second multiphonic.

59. Ibid.

To produce monophonic e' in measure seven with the given fingering demands a slightly relaxed throat, and the multiphonic which follows two counts later needs a little more throat relaxation.

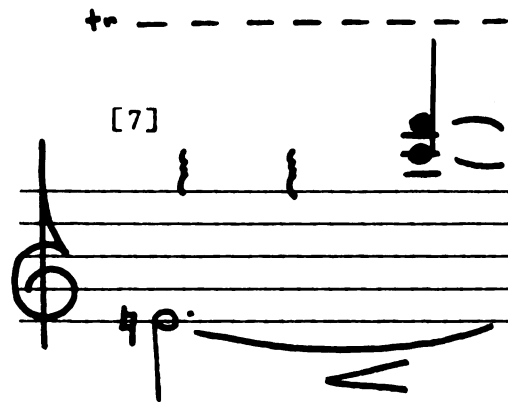


Figure 34. Smith, Wm. O., Fancies for Clarinet Alone, IV, measure 7, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Each clarinetist must experiment to determine the proper amount of throat relaxation for too little will negate the upper tones completely, and too much will cause the lower tone to disappear.

Once the clarinetist has mastered all the techniques mentioned above, the crescendos and diminuendos must be considered. These must be approached with considerable care, since their repetition every two measures makes for obvious consistency. This, again, will require experimentation on the part of the performer, for it is impossible to describe adequately in written communication the adjustment of air pressure and embouchure.

Study IV brings out a discrepancy in two sources used as research material for the present investigation of Fancies. The problem exists in the numbering of movements in the score and in the Bandwagon article⁶⁰

60. Smith, "Contemporary Clarinet Sonorities", pp. 12-14.

by the composer. The numbering of Studies I, VI, and IX coincide in both sources, however, comparing the score with the article results in numbering discrepancies in three instances:

II in the score = IV in the article

IV in the score = VII in the article

VIII in the score = VII in the article

In most instances of this sort the score would be assumed correct, but since the article was written by the composer himself, it is also assumed that his information is accurate. The resolution of this discrepancy can only come from the composer, and though inquiries have been made, no answer has been received.

In any event, this study produces some interesting challenges for the clarinetist, but performing solutions are simpler than those previously investigated.

V

The fifth study under investigation is unique in several ways. Anyone looking at this study will initially notice that whereas all the preceding studies use only one innovative technique throughout the movement: I - connecting monophonic and multiphonic sounds; II - multi-sonority chords with tremolos; III - multiphonic sonorities through synchronous playing and humming; IV - connecting monophonic and multiphonic sounds; this movement is based upon the alternation of multiple sonorities with flutter tongues.

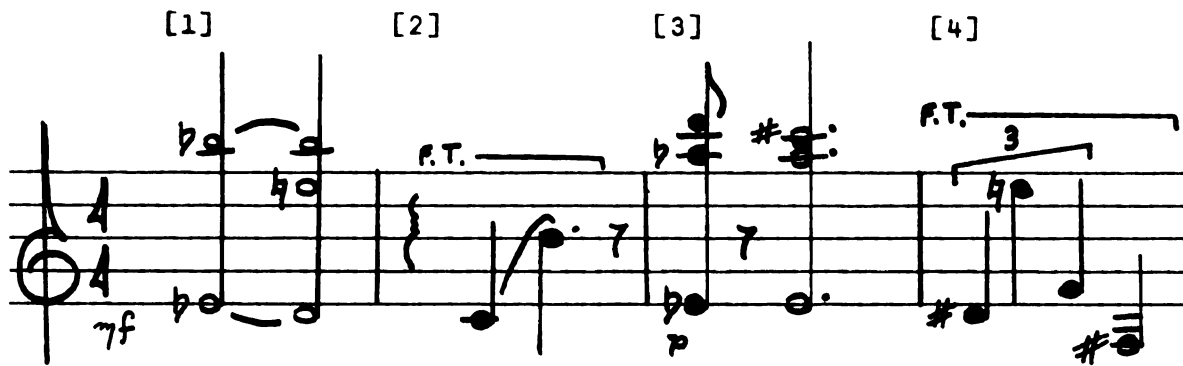


Figure 35. Smith, Wm. O., Fancies for Clarinet Alone, V, measures 1-4, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The melodic organization of this movement is void of any repetition, and should be classified as through-composed. The rhythmic structure provides more stimuli for organizational discussion when perceived in the proper perspective. To begin this study there are four measures of $\frac{4}{4}$ followed by two measures of $\frac{3}{4}$, with an additional three measures of $\frac{4}{4}$ followed by one measure of $\frac{5}{4}$, and two measures of $\frac{4}{4}$ to conclude the movement. This establishes a pattern which decreases by one with each repetition. Four $\frac{4}{4}$ measures become three and finally two while the six count interval decreases by one to five counts. Although this type of rhythmic analysis is somewhat tenuous, the various methods of organization used in the twentieth century do not render this an improbable structure.

The clarinetist who seriously investigates this composition or any work involving avant-garde techniques should not be surprised by the inclusion of nine notes within this study requiring flutter tongue. This technique, while generally associated with Alban Berg's Vier Stucke fur Klarinette und Klavier (1913), was used, according to Kroll,⁶¹ sixteen

61. Kroll, The Clarinet, p. 93.

years earlier by Richard Strauss in Don Quixote (1897) to illustrate the bleating of sheep.

In this movement the notes requiring flutter tongue range from f#-e" and are not as difficult to produce as those discussed in Variants VI above, but they do require the same performing techniques.

Another aspect of this study which sets it apart from those considered previously is the conflicting fingering patterns suggested by the composer in the score, by Heiss in his article⁶² and by personal experimentation. Undoubtedly, this difference of opinion is related to the composer's statement contained in the introductory statements concerning the various intonations which will result from using different instruments, mouthpieces and reeds. Also, individual physiological structure must be considered. The instances of particular fingering controversies are shown below with the preferred fingering appropriately labeled.

62. Heiss, "Some Multiple-Sonorities", p. 141.

Figure 36 shows musical notation and score analysis for measures 5-6, 8, and 10 of "Fancies for Clarinet Alone, V" by Wm. O. Smith.

Measure 5: The notation shows a treble clef, a 3/4 time signature, and a mezzo-piano (*mp*) dynamic. The score analysis compares Heiss and Turner editions. Heiss has a score of 80, while Turner has a score of 80 with a preferred version marked with a circled 8. The analysis shows a preferred version for Heiss.

Measure 6: The notation shows a treble clef, a 3/4 time signature, and a mezzo-piano (*mp*) dynamic. The score analysis compares Heiss and Turner editions. Heiss has a score of 80, while Turner has a score of 80 with a preferred version marked with a circled 8. The analysis shows a preferred version for Heiss.

Measure 8: The notation shows a treble clef, a 3/4 time signature, and a mezzo-piano (*mp*) dynamic. The score analysis compares Heiss and Turner editions. Heiss has a score of 80, while Turner has a score of 80 with a preferred version marked with a circled 8. The analysis shows a preferred version for Heiss.

Measure 10: The notation shows a treble clef, a 3/4 time signature, and a piano (*p*) dynamic. The score analysis compares Heiss and Turner editions. Heiss has a score of 80, while Turner has a score of 80 with a preferred version marked with a circled 8. The analysis shows a preferred version for Heiss.

Figure 36. Smith, Wm. O., Fancies for Clarinet Alone, V, measures 5-6, 8, 10, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

$$f(x) = \frac{1}{2} \ln(x^2 + 1) - \frac{1}{2} \ln(x^2 - 1)$$

$$f'(x) = \frac{1}{2} \cdot \frac{2x}{x^2 + 1} - \frac{1}{2} \cdot \frac{2x}{x^2 - 1}$$

$$f'(x) = \frac{x}{x^2 + 1} - \frac{x}{x^2 - 1}$$

$$f'(x) = \frac{x(x^2 - 1) - x(x^2 + 1)}{(x^2 + 1)(x^2 - 1)}$$

$$f'(x) = \frac{x(x^2 - 1 - x^2 - 1)}{(x^2 + 1)(x^2 - 1)}$$

$$f'(x) = \frac{x(-2)}{(x^2 + 1)(x^2 - 1)}$$

$$f'(x) = \frac{-2x}{(x^2 + 1)(x^2 - 1)}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

$$f'(x) = \frac{-2x}{x^4 - 1}$$

It is recommended that each performer experiment with the various fingerings presented above, and utilize those which are most agreeable to the individual. The fingerings presented as alternatives to the composer's are preferred since they are produced with as many fingers down as possible. The fingering shown as an alternate in measure eight does not use more fingers, but presents a situation where change to the next sonority, $e^{b'}-c^{b''}$, is smoother and easier.

The clarinetist will find that many of the multiphonic sonorities required in measures one, five, six, eight, eleven and twelve, are considerably more difficult to produce than any previously encountered. Relaxation of the throat and embouchure is again necessary with individual experimentation essential for each performer to determine the degree and extent of relaxation.

To summarize Study V, the clarinetist will find that the movement's demands for multiphonic sonorities have been generally encountered either earlier in this composition or in Variants, while the flutter tongue effect has been used in clarinet literature for over seventy-five years. However, the use of two techniques in one movement and the difficulty of realizing these additionally complex multiphonics create new challenges for the performer, and demand a greater degree of patience and fortitude than any of the previous movements.

VI

This study uses multiphonics throughout the movement, but now alters the upper sonorities while retaining the fundamental or lowest tone.

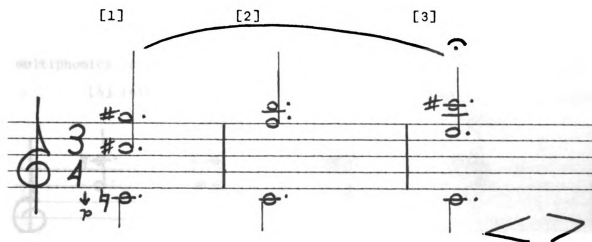


Figure 37. Smith, Wm. O., Fancies for Clarinet Alone, VI, measures 1-3, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The organization of the five sonorities used: one = c', c#", g#"; two = c', f", b"; three = c', e", a#"; four = c', f", b"; five = c', c", a"; is freer than some of the previous studies. The five sonorities are manipulated throughout the movement, and, due to the limited resources, show great similarity. The only specific organizational feature is the retrograde presentation of the multiphonics of measures one to three in measures eleven to twelve.

The composer states⁶³ that it is possible to produce several chords with the same fingering, and this study illustrates this statement by using the basic fingering



as the starting point for sounds with only slight variations through the addition of the different little-finger keys A, B, or C.

63. Smith, "Contemporary Clarinet Sonorities", p. 13.

When comparing the fingerings in the score with those presented by Heiss⁶⁴, the performer finds conflicting opinions concerning the resulting multiphonics in two instances.

[5] (Also 6, 8, 13-14) [9] (Also 1, 12)

C C B B

Figure 38. Smith, Wm. O., Fancies for Clarinet Alone, VI, measures 5, 9, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

This conflict is easily explained in two ways: first, the composer's statement above relates the possibility of playing different sonorities with the same fingering which vary according to the instrument, reed, mouthpiece and physiological structure as factors of intonation; second, the composer has included the notation of an arrow in one of the instances in controversy which, though a rather unusual notation, most clarinetists will recognize as an indication to bring the jaw slightly forward while relaxing the embouchure in order to lower the pitch of the note. This adjustment will help to lower Heiss' e^b to Smith's d" in measure five and Heiss' d" to Smith's c#" in measure nine.

64. Heiss, "Some Multiple-Sonorities", p. 141.

The manipulation of jaw and embouchure for intonation purposes, combined with the previously related concept of blowing in a manner appropriate for a note between those notated as multiphonic extremities, will make the production of the desired multiphonics relatively easy throughout this movement.

Another problem facing the performer is related to the indicated fingering for the initial multiphonic in this study. The basic fingerings, as given above, are shown augmented by the C key in the score while the composer indicates augmentation with key B in the Bandwagon article⁶⁵. The latter fingering is substantiated by the indicated fingerings in measures nine and twelve for identical sonorities in the score, and is further substantiated as correct following experimentation. The inclusion of an inaccurate fingering in the printed score creates a problem for the performer in a composition of this nature, and consequently the utmost care should be exercised by the composer and the publisher to avoid such incorrect notations.

Sliding the little-finger right-hand is necessary in measures six-seven and eight-ten if the notated fingering is to be followed.

65. Smith, "Contemporary Clarinet Sonorities", p. 13.

Figure 39 shows a musical score for a clarinet piece. The score is written on a single staff with a treble clef. The key signature has one sharp (F#). The time signature is 4/4. Measures 6 and 8 are bracketed. The notation includes eighth and quarter notes, some with slurs. Below the staff, there are fingerings indicated by dots and numbers (4, 4, 4, 4, 4, 4, 4, 4). Below the fingerings, there are two labels: 'C-slideA' and 'C--slide-B---slide---A'.

Figure 39. Smith, Wm. O., Fancies for Clarinet Alone, VI, measures 6-10, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

These slides present no particular problems if the performer ascertains that all factors necessary to play the first multiphonic of the slide are maintained for the second, etc., and that the finger movement is very smooth and even. Failure to follow this recommendation will make it almost impossible to instigate the multiphonic following the slide due to the difficulty in re-establishing the sonority.

The relative ease in producing the multiphonics contained in this study are a welcome relief for the performer after the extensive demands of the first movements. In addition, if the clarinetist has studied the the movements in their order of appearance in the composition, significant experience in multiphonic production will have taken place prior to this study, and multiphonics are no exception from the established principle of success through practice and experience.

An investigation of this study has revealed repetitions of several concepts used in previous movements as well as the introduction of new compositional inspirations. Containing only nine measures, this movement is identical in notated length to the shortest study, III, which also requires about thirty seconds to perform. The alternation of monophonic and multiphonic sonorities is similar in concept to Study V where multiphonic and flutter-tongue monophonics are used. This alternation, however, involves non-flutter-tongued monophonic sounds which provide a dramatic contrast with the multiphonic effects.



Figure 40. Smith, Wm. O., Fancies for Clarinet Alone, VII, measures 1-3, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

One of the few organizational features of this study involves the relationship of the monophonic and multiphonic sounds. As is shown in the following table, the monophonic tones often precede a similar multiphonic sonority.

Table 15. Monophonic to Multiphonic Similarities

Measure Number	Monophonic Notes	Multiphonic Sonorities
1	d', g'', c#'''	d', g'', c#'''
7	g, e'''	g, b'', e'''
8	c', d''', f'''	c', f'''

Another organizational factor is the presentation of three notes and a rest before a substantially longer multiphonic. This is evident in measures one, two-three and eight-nine, and, even though three basic duplications of an element can hardly be designated as significant under normal circumstances, a nine measure movement which lasts only about one-half minute does not require the total organization often found in compositions of greater length.

The performer faces many of the same challenges encountered in earlier movements, but the multiphonic-novice will discover that each new multiphonic sonority will provide new and perplexing problems. The demands upon the performer in this study are similar in concept to many found earlier, though unique in several aspects of production due to the inherent complexities of playing multiphonic sonorities.

The composer gives the following instructions in the preface of the composition: "It will prove useful here to have a very clear idea of the upper line. In the second, sixth and seventh measures one must be especially careful to have an open relaxed embouchure. All the multiple sounds will have a slight degree of roughness,"⁶⁶ caused by the rather dissonant quality of the concurrent tones.

66. Smith, Fancies, p. unnumbered.



Figure 41. Smith, Wm. O., Fancies for Clarinet Alone, VII, measures 2, 6, 7, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The outer extremities of these multiphonics are as far apart as two octaves and a minor seventh in measure four, and, because these outer notes are expanded beyond those multiphonics previously encountered, the clarinetist must be extremely cautious to relax the embouchure, open the throat and adjust air pressure according to plans made through prior-to-performance experimentation. Once these manipulations have been mastered, the performer must be flexible enough to change from the normal adjustment for playing the monophonic notes to the unusual physical manipulations needed for the production of the multiphonics.

Two additional problems will be found: first, in measures five-six the clarinetist must slide the little-finger right-hand in such a smooth manner as to avoid disturbing the fundamental of the required multiphonic; preceding movements which, though unusual, helps in the production of these multiphonics.

The performing techniques required in this study make it one of the most difficult movements to play in the entire composition. Smith demonstrates his knowledge of the instrument and performing difficulties by placing a movement of this physical and mental complexity after several similar but easier previous studies. The clarinetist will need all the physical manipulation skills of embouchure and throat developed in previous experimentation plus the necessary mental attitude toward personal experimentation if a successful performance is ever to be achieved on Study VII.

VIII

Eight, while not the longest in number of measures, takes the greatest amount of time to perform. It basically follows the compositional pattern of the previous movement with the use of alternating traditional monophonics separated by rests from multiphonic sonorities, although in two instances monophonic and multiphonic sonorities are linked together without the rests.

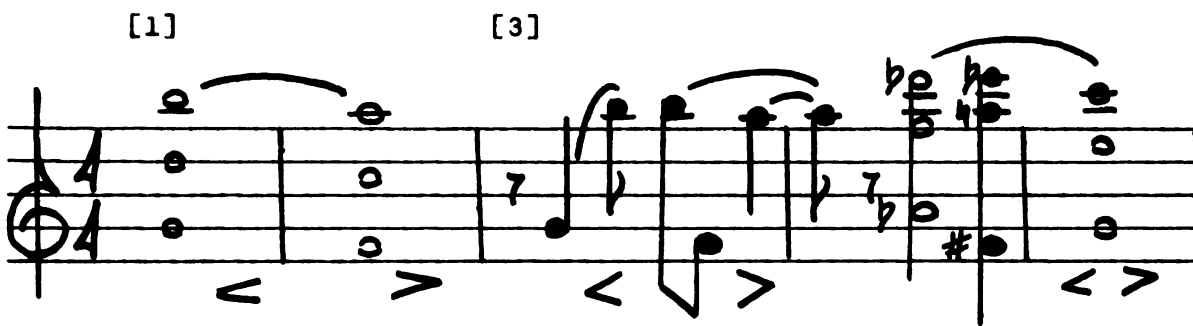


Figure 42. Smith, Wm. O., Fancies for Clarinet Alone, VIII, measures 1-5, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

[5]

Score	Heiss
8 0	8 ●
● 0 5	● ● 5
0	0 5
0	0
0	0
0	0

Figure 44. Smith, Wm. O., Fancies for Clarinet Alone, VIII, measure 5, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The use of either fingering seems a moot point, for each fingering is equally adequate for the production of the desired multiphonic. A performer can only be guided by personal experimentation and personal preference.

Smith relates in the Bandwagon article⁷⁰ that the triad multiphonics used in this movement should be relatively easy to produce. If these studies have been mastered in the given sequence of movements, this statement is undoubtedly true. The performer, however, must be aware of the necessity of hearing the f#" mentally in measure eleven and applying the extra embouchure pressure before the tone is actually played to insure proper placement of the note with the given fingering. The same process will also be necessary before attempting the f#" in measures twelve-thirteen.

The alternation of monophonics and multiphonics throughout this movement, in addition to the rather wide range between the extremities of the multiphonics, can provide the audience with a feeling of great anticipation for the next sonority. This generation of excitement should make the performance of this study more stimulating to the clarinetist as well.

IX

With the exception of the linking of monophonic and multiphonic sonorities in two instances, measures one and nine-ten, the ninth study uses the basic principle of multiphonic sounds throughout. The application of this concept is expanded in this movement by the inclusion of lip-slurs.

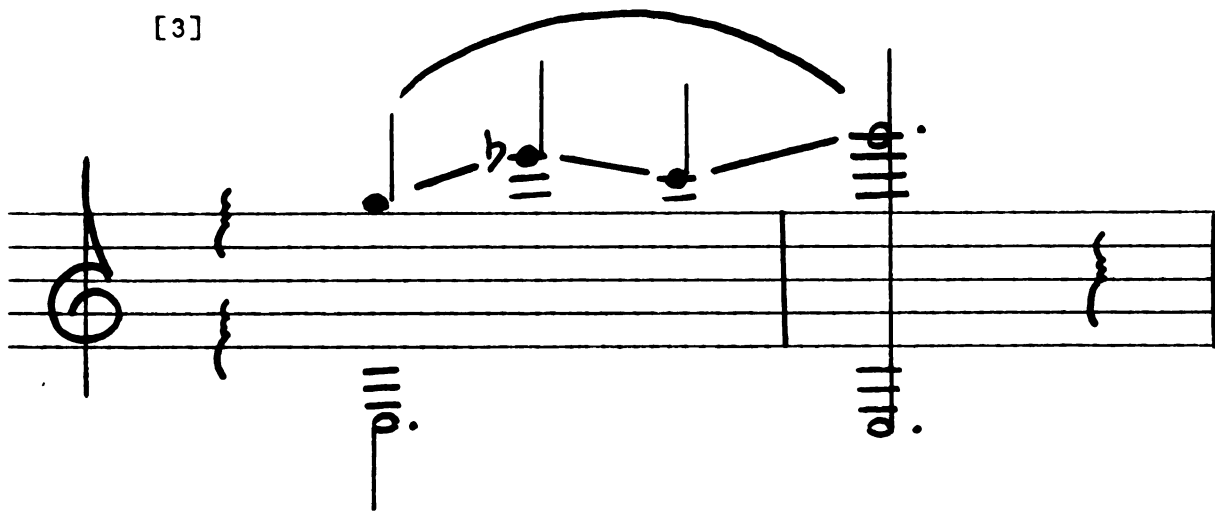


Figure 45. Smith, Wm. O., Fancies for Clarinet Alone, IX, measures 3-4, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Even though overblowing partials is a basic acoustical premise for sound-generation on any wind instrument, the clarinet is generally assumed to be able to produce only the odd-numbered partials. Culver takes exception to this notion in stating: "while the second harmonic may be absent

we find other even partials are often present."⁷¹ Though he is referring to those harmonics present within a single tone, the principle is extended by the composer in this movement in measures two and seven where an e generates its eighth partial e'''.

The composer further elaborates upon the above mentioned concept of generating even-numbered partials by producing tones which are not even a part of the normal overtone series of the fingered fundamental. These tones will be indicated by an asterisk in the following table.

Table 16. Generation of an Upper Tone from a Given Fundamental

Measure Number	Fundamental Tone (to be fingered)	Upper Tone (to be generated)	Partial Number
1	e	g''	5
2	e	g''	5
2	e	e'''	8
3	e	g''	5
3	e	e ^{b'''}	*
3	e	c'''	*
4	e	g'''	10
5	e	g''	5
5	e	e ^{b'''}	*
5	e	c'''	*
6	f	a ^{b''}	*
7	e	g'''	10
7	e	g''	5
8	f#	a''	*
9	e	g''	5

In his Bandwagon article⁷², the composer relates that it is possible to produce more than one multiphonic sonority with any one fingering. This has been found to be true according to the fingerings indicated in the score in studies II, VII and IX.

71. Charles A. Culver, Musical Acoustics, 4th ed. (New York: McGraw-Hill Book Co., 1956), p. 203.

72. Smith, "Contemporary Clarinet Sonorities", p. 13.

The melodic organization of this study reveals repetitions within measure one and nine-ten, three and five. Further study shows that measure seven is the retrograde of measure two while measures four, six and eight are totally unrelated.

Rhythmic structure entails duplication in measures two and seven, three and five, four and six while measures one and nine are similar though not exact.

The following diagram presents in a more concise manner these aforementioned relationships, and the fact that this movement contains more relationships than many of the preceding studies makes it worthy of a more detailed consideration.

Table 17. Melodic and Rhythmic Organization (by measure)

Melodic Organization		Rhythmic Organization	
Original Statement	Duplication of Statement	Original Statement	Duplication of Statement
1	9-10	2	7
2	7 (retrograde)	3	5
3	5	4	6

The clarinetist faces several problems when he attempts this study. Initially the method of approaching the multiphonics is similar to Study I: that of beginning with the top extremity of the sonority and adding the fundamental later.

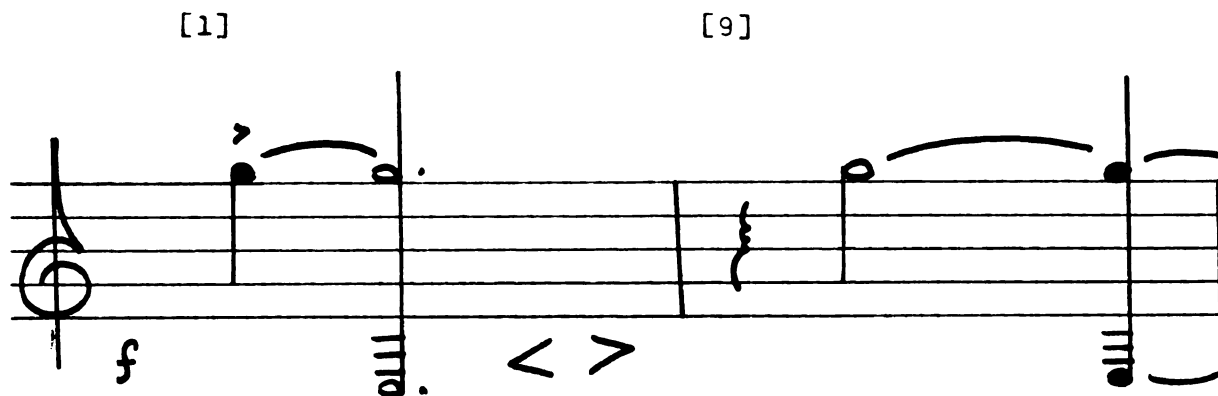


Figure 46. Smith, Wm. O., Fancies for Clarinet Alone, IX, measures 1, 9, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

This would not seem to involve great difficulty considering that the first tone, g", is the fifth partial of the later-played harmonic e. The production of both tones, however, is by traditional fingerings. Despite the composer's statement: "utmost relaxation of throat and embouchure is necessary"⁷³ throughout this movement, the playing of these sonorities is difficult due to the change of fingers. Personal experimentation by the performer is again suggested with particular attention to the maintenance of all the physical properties of the upper tone as the fingers smoothly change to the fingering for the fundamental. Concentration upon the upper note is essential for the accurate presentation of the multiphonic if the clarinetist wishes to avoid the tendency of voicing the note fingered.

Next, the indicated dynamic of forte is in contrast to the generally soft dynamics used in the majority of preceding movements. This helps to create an aural harshness which is similar to a flutter tongue, but does not allow the performer the margin of error possible with a softer sonority

73. Smith, Fancies, p. unnumbered.

Finally, the clarinetist must produce the rather unconventional lip-slurs seen in the examples above. This is a new technique in this particular composition, but was discussed in the chapter on Variants for Solo Clarinet. These demand, in addition to the complete relaxation of the throat and embouchure, an extension of the jaw as far down and forward as is physically possible and a simultaneous delicate manipulation of air pressure. Once these physical changes have been accomplished, it is merely necessary to move the open-jaw up the reed as the lip-slur goes up and down as the slur goes back down.

Study IX presents new challenges to the performing clarinetist, but the resulting sonorities are unique in many respects, and are worthy of the time and effort which must be expended to realize the score.

X

The final movement of the Multiple-Sound Studies is a mixture of several techniques used previously as well as some new concepts. In basic format this movement is similar to Study IV in its use of trilled multiphonics even though all sonorities are multiphonics in this instance.

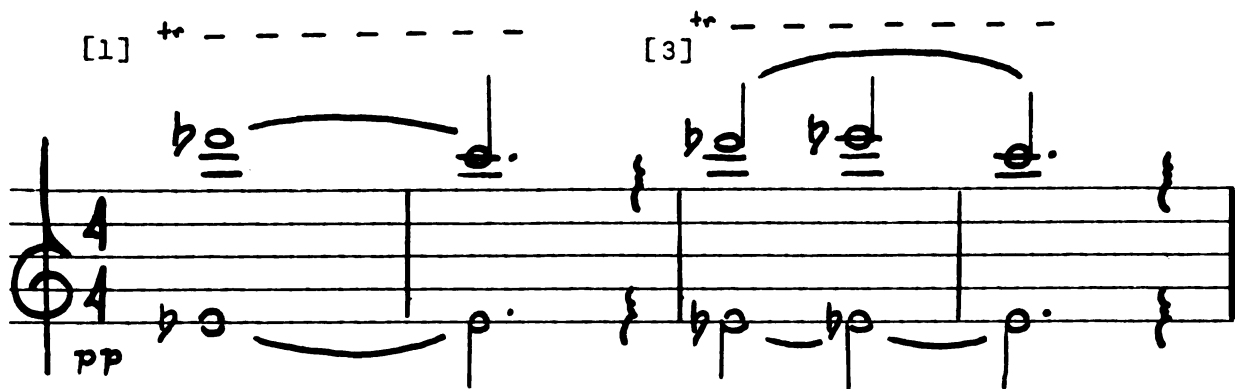


Figure 47. Smith, Wm. O., Fancies for Clarinet Alone, X, measures 1-4, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The organizational pattern of the melodies is similar to several investigated previously, and is related in several instances without sufficient duplication to establish a pre-twentieth-century form. Measures one-two are repeated with an ornamental e^{b'''} in measures three-four while the basic melodic pattern of measures five-seven is stated in retrograde in measures eight-eleven. The remaining five measures show no melodic relationship to any of the others or among themselves.

The performer who expects pedagogical assistance in the study of this movement can rely only upon the introductory remarks in the score, for this study was not included in the composer's article in Bandwagon magazine referred to for earlier movements. Remarks within the score are concise and demand special attention to the meaning and content.

Here the student must play softly to produce the desired effect. The normal fingering should be employed for the upper note whenever no other fingering is indicated. To achieve the necessary degree of throat and embouchure relaxation, the player should practice the lower trilled notes before playing both parts together.⁷⁴

It is recommended that the performer place special emphasis on the composer's statement that the player must utilize proper fingerings for the UPPER TONES if no special fingering is shown in the score, for no alternate fingerings are available from any other source.

All remarks by the composer have been found to be beneficial throughout this composition, either as a final solution or as a point of departure for referring to other sources or personal experimentation. The inclusion of instructions to practice the lower trilled notes without the upper trills is a suggestion especially worthy of utilization within this movement. As can be expected, this practice technique cannot replace the necessary personal experimentation by the individual clarinetist.

74. Ibid.

The score-indicated d''' in measure sixteen needs clarification. Earlier figures seem to be identical except for a d^{b'''} in measures one, three and thirteen while measures five and six use a d'''. To avoid confusion for the performer, the score should be properly notated with a natural sign if this is the composer's intention in measure sixteen or be notated as a d^{b'''} if this is the appropriate note.

The return of pianissimo dynamics for the final movement of a composition dominated by soft dynamics provides a subtle unity.

Although the clarinetist has encountered many monophonic and multiphonic techniques previous to Study X, initial attempts with the complexities of the multiphonic-trills in this movement will indicate several unique performing problems. Little guidance can be provided beyond that given above and the reminder to keep the throat relaxed, the jaw down and the air pressure appropriate for the desired sonority, and to re-emphasize the absolute necessity of personal experimentation with the physical manipulations to determine the correct adjustment needed for production of the required sonorities by each individual performer.

Study X is one of the more demanding movements in the entire composition, and requires the full complement of physical manipulations, psychological attitudes and personal perseverance.

Summary

The preceding investigation of Fancies for Clarinet Alone by William O. Smith has revealed several unique monophonic and multiphonic sonorities. As it is subtitled Multiple-Sound Studies, the clarinetist can hardly be surprised to discover the predominance of multiphonic sonorities. However, most performers who are proficient enough technically to explore such works of an avant-garde nature are not prepared psychologically to disregard and discard many of the performing processes which have taken many years to develop toward mastering the traditional clarinet repertoire.

The student should not be discouraged if his initial attempts to produce any of the preceding examples fail. He will find that persistent experimentation with embouchure and breath control will eventually result in consistent success in their execution.⁷⁵

This treatise previously states that any discussion of inherent musical significance would be avoided. However, any clarinetist or composer who has thoroughly and extensively studied Fancies for Clarinet Alone can hardly fail to recognize the potential of such avant-garde techniques or the immense demands they make on the performer. As mentioned in the initial chapter of this discussion, the performing clarinetist must strive to master all techniques demanded in current literature in anticipation of new ideas yet to come.

75. Smith, "Contemporary Clarinet Sonorities", p. 14.

CHAPTER V

MOSAIC for CLARINET and PIANO

by William O. Smith

Publisher: MJQ Music, Inc., New York (1972)

Performance Time: c. 11 minutes

Range: e - e#'''

Movements:	I	Dramatic
	II	Leisurely
	III	Brittle
	IV	Forceful
	V	Delicate
	VI	Electric
	VII	Lively
	VIII	Energetic
	IX	Forceful
	X	Tranquil
	XI	Dramatic

Mosaic for Clarinet and Piano, while novel in some compositional aspects, retains many of the avant-garde concepts discussed in Chapters III and IV. A general consideration of a variety of performing techniques should precede a more detailed investigation of each movement.

While Five Pieces, Variants and Fancies are for unaccompanied clarinet, Mosaic includes the piano, which creates new obstacles. Initially, a trained, experienced and enthusiastic pianist is essential. Producing the required sonorities with immediate accuracy and precision on the clarinet, despite their somewhat unpredictable and time-consuming nature, will require solutions to such problems as the selection and use of a mute, expanded multiphonics, and other problems caused by a lack of adequate performing instructions in the score. If a cohesive ensemble situation is to be maintained, these problematic elements must be resolved.

Whereas Variants and Fancies included a detailed performing preface, Mosaic provides introductory remarks for the pianist only. These brief instructions are essential for the proper realization of the piano score, and the exclusion of such information for the clarinetist presents numerable pedagogical obstacles.

Without any time signatures, tempo indications or bar lines in the score, "spacing is used to suggest the relative duration of notes. Brackets are used to indicate notes which are to be played faster than their spacing suggests."⁷⁶ The descriptive titles for each movement may be helpful to the clarinetist for establishing tempos.

Without bar lines it is again necessary to identify sonorities by number using the first note of each movement as number one and numbering each part separately.

In addition, "except in the case of tied or repeated notes, accidentals refer only to notes which they immediately precede."⁷⁷

The poor condition of the score, obviously a copy of the original makes it difficult to determine the proper alignment of the parts and to establish the validity of several faint notations.

The clarinetist uses a multitude of sonorities. Some of these are nearly identical to those discussed in previous chapters; some are similar to those already studied but are expanded in some way; and some are unique to this composition. Therefore, it is appropriate to discuss these sonorities through an investigation of each movement.

76. William O. Smith, Mosaic for Clarinet and Piano, (MJQ Music, Inc., 1972), p. unnumbered.

77. Ibid.

I

Dramatic

Except for the addition of two piano harmonics concurrent with the clarinet's final sustained sonority, the initial movement of Mosaic is for unaccompanied clarinet. The complex nature of the clarinet part provides adequate interest and significance to the audience.

The lack of melodic or rhythmic organization within this movement is typical of the other movements in the composition, and each movement should be regarded as through-composed.

Simultaneous humming while playing multiphonics, as discussed in detail regarding the second movement of Variants and the third movement of Fancies, prevails in Dramatic. Although the concept here is more complex and demanding for the clarinetist, the basic performing problem of maintaining the hummed pitch remains unchanged.

Expansion of this concept is seen, initially, through the addition of a flutter tongue on the hummed tone.

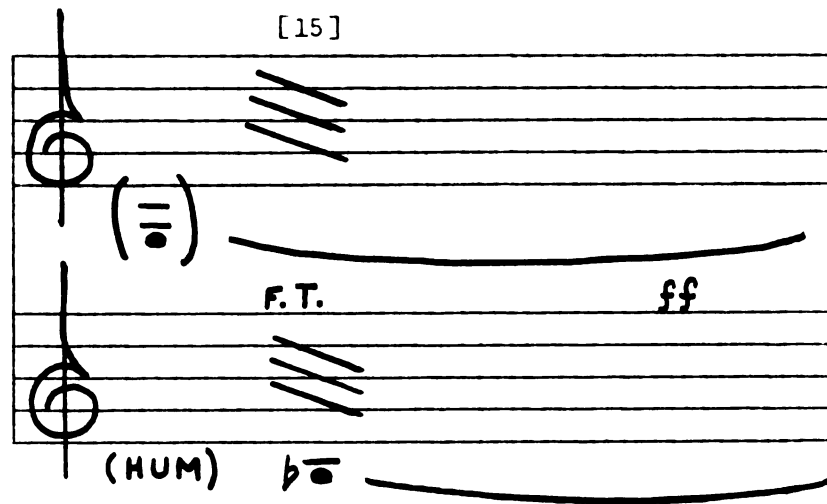


Figure 48. Smith, Wm. O., Mosaic for Clarinet and Piano, I, sonority 15, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission. Reproduction prohibited.

Although flutter tongue is only notated on the hummed pitch, the production of such an effect can be aurally perceived on both pitches due to the tongue-interrupted nature of the air column for the two pitches. Because the simultaneous hummed-played notes render an effect similar to flutter tongue when only a small interval apart, the addition of the flutter tongue itself changes the aural effect only slightly. It should also be noted that the addition of the flutter tongue creates no new problems which an awareness of the many physical manipulations will not solve.

However, the second expansion of the hum-play concept is not as easy to perform.

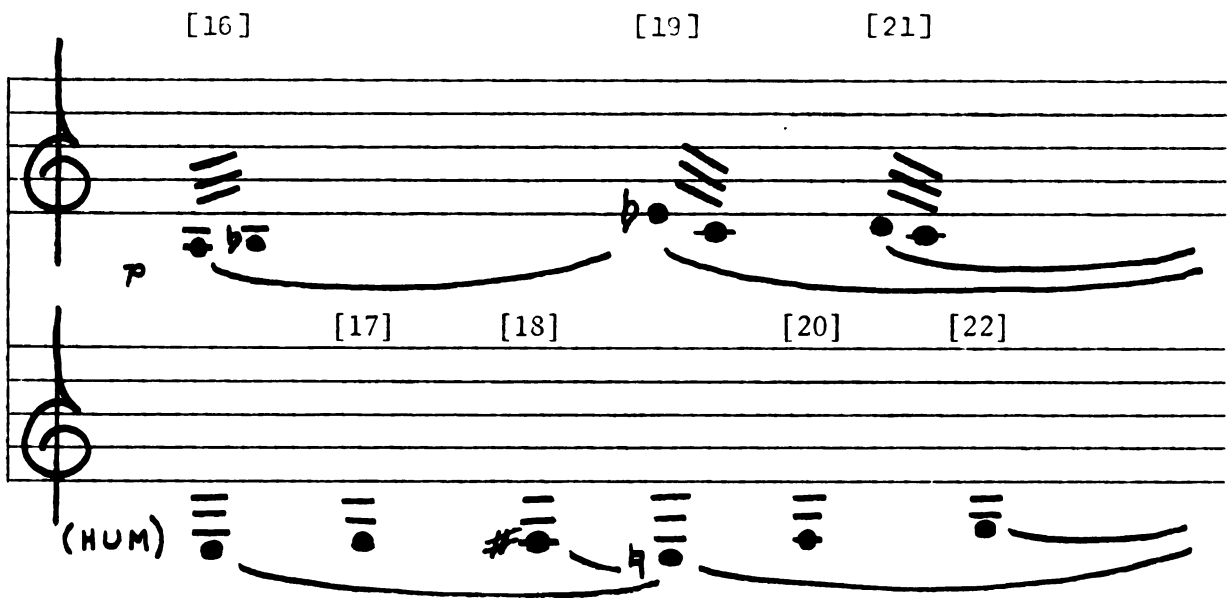


Figure 49. Smith, Wm. O., Mosaic for Clarinet and Piano, I, sonorities 16-22, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The addition of tremolos in the upper part makes it difficult to maintain the hummed pitch while attempting to produce the played tremolos with the unusual fingerings given by the composer.

The multiple-tone played multiphonics in the movement are similar to several discussed earlier in this treatise. The production of the fifth-partial multiphonics in sonorities twenty-three through twenty-five are difficult due to their relatively low harmonic number. They demand a very relaxed throat, a jaw movement forward and down, and a downward-directed, light air pressure.

Sonorities six and seven produce more problems for the performer.

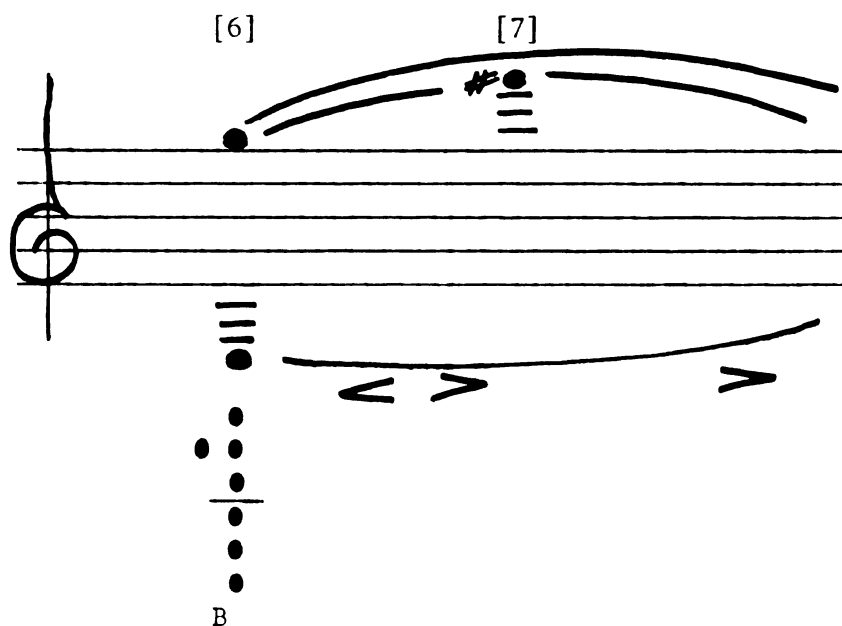


Figure 50. Smith, Wm. O., Mosaic for Clarinet and Piano, I, sonorities 6-7, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The g'' is possible with an open throat, jaw down and light air pressure with the given fundamental, but the uninterrupted movement from this flat-fifth partial to the ninth partial, $f\sharp'''$, requires a slight tightening of the throat and a redirecting of the air upward. Due to the various factors involved in such an adjustment, experimentation by the performer is essential to determine the physical manipulations needed to insure accurate pitch throughout.

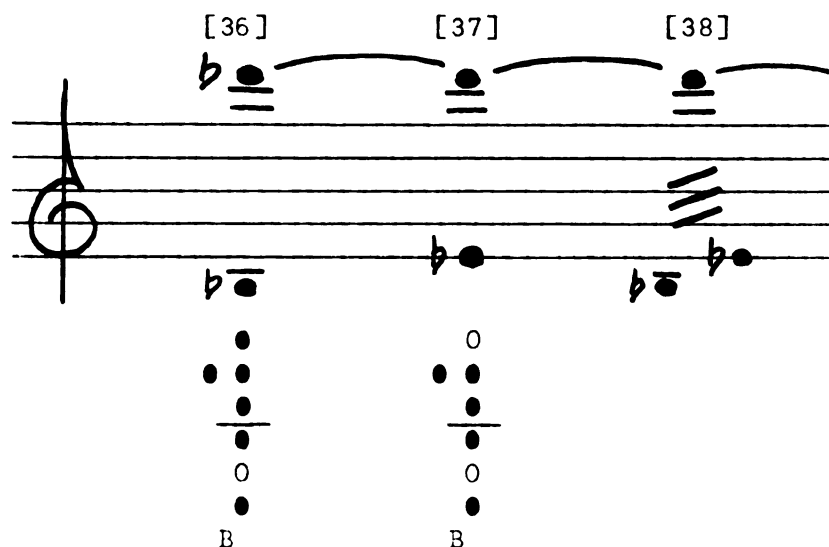


Figure 51. Smith, Wm. O., Mosaic for Clarinet and Piano, I, sonorities 36-38, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Although Rehfeldt⁷⁸ presents alternate fingerings for the above multiphonics, it is easier to maintain the upper tone and produce a similar tone quality throughout by using the fingerings presented in the score.

The appearance of "air-alone" sounds is the single unique variety of sonorities in this movement.

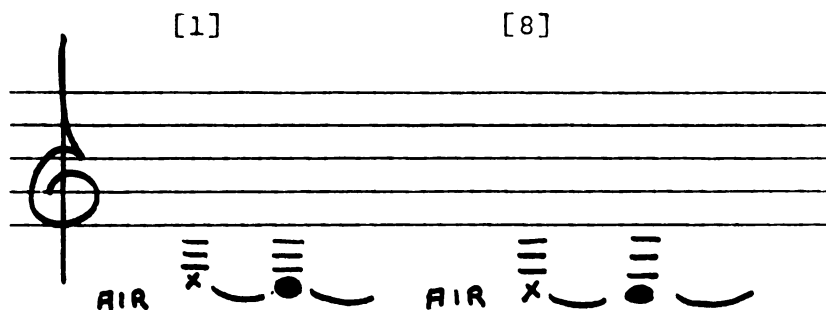


Figure 52. Smith, Wm. O., Mosaic for Clarinet and Piano, I, sonorities 1-2, 8-9, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

78. Rehfeldt, "Multiphonics for Clarinet", p. 9, 14.

Considerable care is necessary to avoid air pressure intense enough to initiate the monophonic tone too early. Although this concept is not difficult, it is one that the conventionally-trained clarinetist is generally taught to avoid.

The inclusion of dynamic contrasts throughout this movement, while increasing the musical interest, creates performing difficulties in maintaining the notated sonorities while changing the dynamics.

Dramatic is a very difficult encounter for the inexperienced performer. Even the clarinetist with some expertise finds many challenges within it.

II

Leisurely

The second movement of this composition is for clarinet and piano with an almost equal number of sonorities for each. The instruments do not begin any of the sonorities concurrently.

The majority of clarinet sonorities are monophonics. By giving careful attention to the relative spacing of the notes, the clarinetist can establish durations.

The use of key vibrato is a concept presented earlier in Variants.

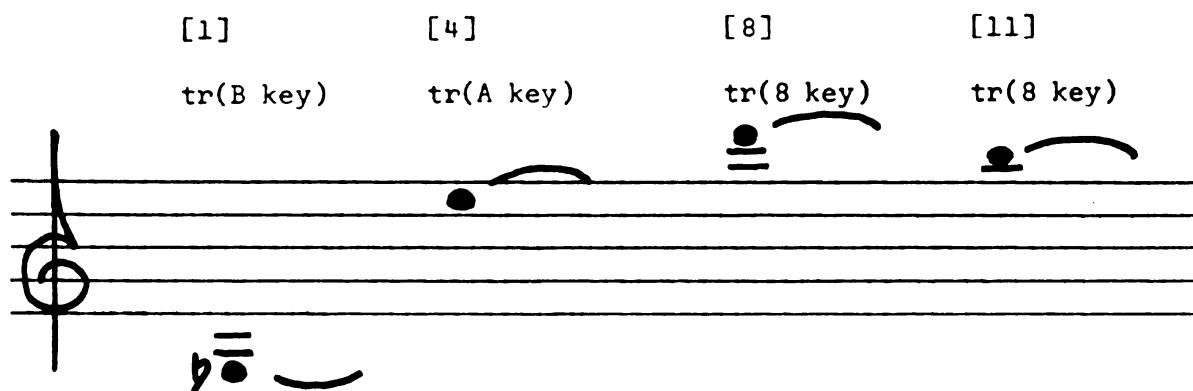


Figure 53. Smith, Wm. O., Mosaic for Clarinet and Piano, II, sonorities 1, 4, 8, 11, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

An appropriate key used to alter a pitch somewhat less than a semi-tone produces a vibrato unlike normal vibrato. In Leisurely, Figure 53, the key to be used for the trill is shown in parentheses. This nomenclature is preferred. The clarinetist has little difficulty performing these sonorities except for the trills. It is difficult to achieve any significant speed when using the register key. Determining the rate of the slowest trill and oscillating the others at a comparable speed provides a suitable aural solution.

The fingerings for the four multiphonics that are given are satisfactory; no alternate fingerings are available.

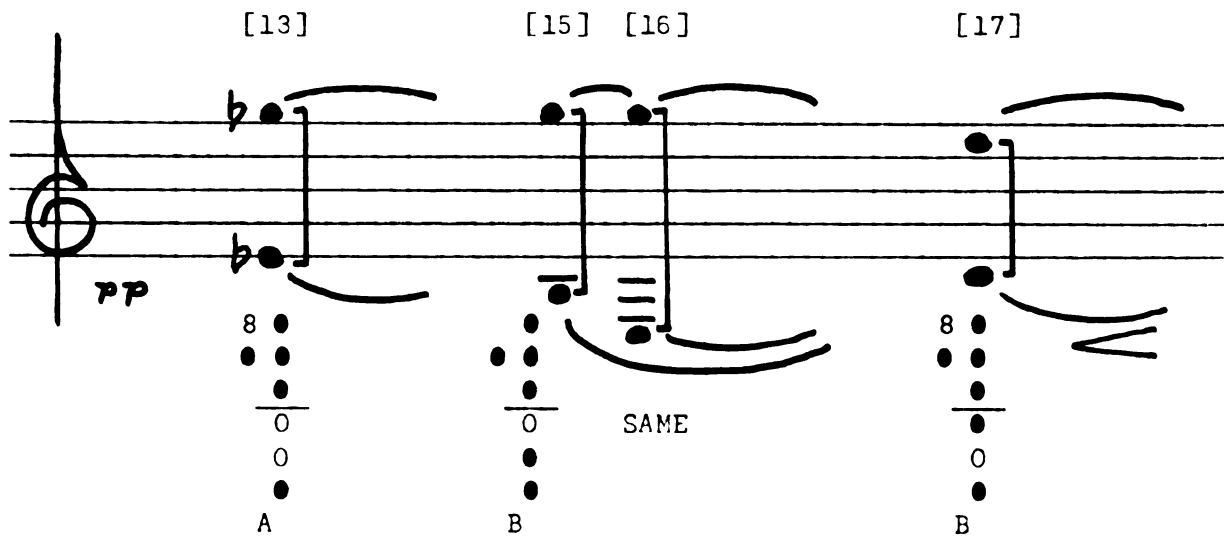


Figure 54. Smith, Wm. O., *Mosaic for Clarinet and Piano, II*, sonorities 13, 15, 16, 17, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Although sonorities thirteen and seventeen are relatively easy to produce, sonorities fifteen and sixteen demand subtle manipulations of the throat, jaw and air pressure, especially as the b changes to e. Only through personal experimentation and experience does the clarinetist become adept in mastering these delicate manipulations.

Alternate fingerings, as shown in the following table, are available for the remaining three multiphonics, and individual experimentation with all fingering possibilities will enable each clarinetist to determine the most appropriate fingering in each instance.

Table 18. Alternate Fingerings for Multiphonic Sonorities

Sonority Number	Notated Multiphonic	Fingering Source			Comments and/or Preferences
		Smith (score)	Rehfeldt	Heiss	
14	$e^{b'}-f''$	$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \bullet \\ \hline 0 \\ \bullet \\ \bullet \\ A \end{array}$		$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \bullet \\ \hline 0 \\ \bullet \\ \bullet \\ C \end{array}$	Heiss Preferred
18	$f'-a^{b''}$	$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ 0 \\ \hline \bullet \\ \bullet \\ 0 \end{array}$	$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ 0 \\ \hline \bullet \\ \bullet \\ 0 \end{array}$	1) $\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ 0 \\ \hline \bullet \\ \bullet \\ 0 \end{array}$ 2) $\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \bullet 4 \\ \hline 0 \\ 0 \\ 0 \end{array}$	Smith Preferred Rehfeldt and Heiss 1) same
19	$g^{b'}-e^{b'''}$	$\begin{array}{c} 8 \ 0 \\ \bullet \bullet \\ \bullet \\ \hline \bullet \ 1 \\ 0 \\ 0 \end{array}$	$\begin{array}{c} 8 \ 0 \\ \bullet \bullet \\ \bullet \\ \hline 0 \\ 0 \\ \bullet \\ D \end{array}$		Smith Preferred Rehfeldt difficult to play <u>piano</u>

III

Brittle

The piano is allocated a greater portion of the notes in this movement than in the preceding movement. The clarinet part accounts for only about thirty percent of the total sonorities.

Five of the twelve multiphonics interspersed throughout this movement must follow the fingerings included in the score, since alternate fingerings are not available from any other source. By following previous suggestions regarding the physical manipulations needed for multiphonic production, the performer should encounter no problem which minimal experimentation will not resolve.

[2] [8] [9] [11]

8 ●
●
●
●4
—
●
●
●
C

●
●
●
●
—
●
0
●
C

●
●
●
●
—
0
●
●
A

●
●
●
●4
—
●
0
0

Figure 55. Smith, Wm. O., Mosaic for Clarinet and Piano, III, sonorities 2, 8, 9, 11, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The following table illustrates the alternate fingerings for the seven remaining multiphonics. The table below is included for study and experimental purposes only.

Table 19. Alternate Fingerings for Multiphonic Sonorities

Sonority Number	Notated Multiphonic	Fingering Source			Comments and/or Preferences
		Smith (score)	Rehfeldt	Heiss	
1	f'-a ^b	$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline 0 \\ \bullet \\ \bullet \\ 0 \end{array}$	$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline 0 \\ \bullet \\ \bullet \\ 0 \end{array}$	1) $\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline 0 \\ \bullet \\ \bullet \\ 0 \end{array}$ 2) $\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline \bullet 4 \\ \hline 0 \\ 0 \\ 0 \end{array}$	Smith, Rehfeldt Heiss 1) Preferred (all same)
3	e'-g''	$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline \bullet 4 \\ \hline 0 \\ \bullet \\ 0 \end{array}$	$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline \bullet 4 \\ \hline 0 \\ \bullet \\ \bullet \end{array}$	$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline \bullet \\ \hline 0 \\ 0 \\ 0 \end{array}$	Rehfeldt Preferred
4	g ^b '-b ^b	1) $\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline 0 \\ \bullet \\ 0 \\ 0 \end{array}$ in Variants 2) $\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline \bullet 5 \\ \hline 0 \\ 0 \\ 0 \end{array}$	$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline \bullet 5 \\ \hline 0 \\ \bullet \\ \bullet \end{array}$ B	1) $\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline 0 \\ \bullet \\ 0 \\ 0 \end{array}$ D (opt.) 2) $\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \hline \bullet 5 \\ \hline 0 \\ 0 \\ 0 \end{array}$	All produce the correct sonority Heiss 1) preferred

Table 19. (cont'd.)

Sonority Number	Notated Multiphonic	Fingering Source			Comments and/or Preferences
		Smith (score)	Rehfeldt	Heiss	
6	d'-c'''		1) 2)		Smith Preferred Rehfeldt 1) and 2) more difficult to produce
7	c'-b''				Both same
10	d'-c#'''		 D or B		Rehfeldt w/D Preferred
12	f#'-d'''		1) 2)		Smith or Rehfeldt 1) Preferred (both same)

Experimentation with alternate fingerings must be encouraged, for even the composer suggests different fingerings for the same multiphonic in different situations, as seen in the preceding table, sonority number four. The score-indicated fingering for the $g^{b'}-b^{b''}$ multiphonic is not the same as that suggested by the composer for the identical sonority in Variants.

Without introductory comments or a fingering within the score, the clarinetist must experiment or find another source for establishing an appropriate fingering for sonority five. The Heiss article⁷⁹ includes a fingering for the multiphonic $e'-f\#\prime\prime$ which is suitable in this instance:

$$\begin{array}{c} 8 \bullet \\ \bullet \bullet \\ \bullet \bullet \\ \hline 04 \\ \bullet \\ \bullet \\ \bullet \\ D \end{array}$$

However, the use of alternate fingerings does not preclude the importance of personal experimentation with the jaw, throat and air pressure by each clarinetist. Individual differences in reeds, mouthpieces, clarinets and personal physical characteristics elude adequate communication of subtle manipulations beyond the general suggestions already mentioned.

The final clarinet sonorities involve the percussive-sounding key clicks with a concurrent multiphonic.

79. Heiss, "Some Multiple-Sonorities", p. 141.

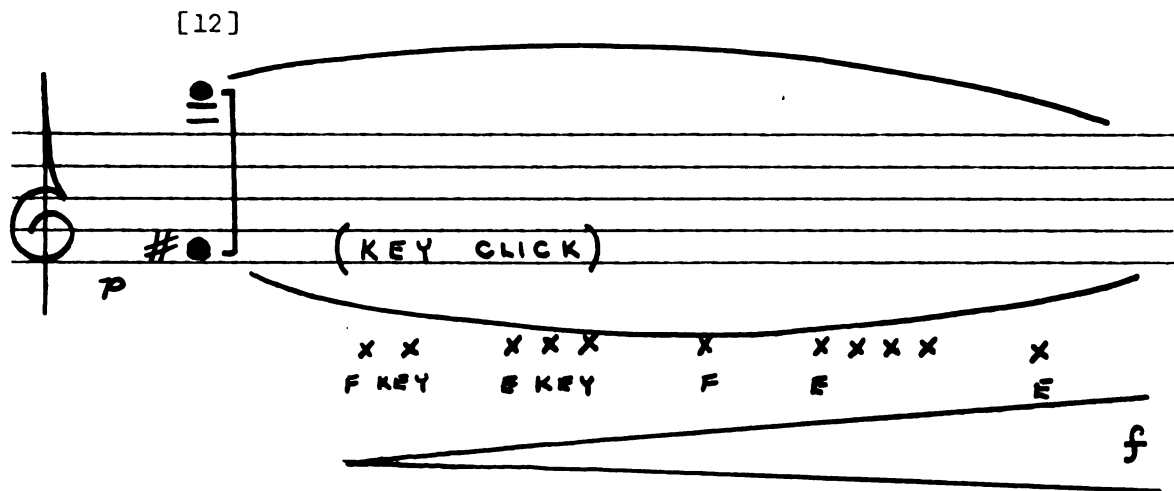


Figure 56. Smith, Wm. O., Mosaic for Clarinet and Piano, III, sonorities 12-23, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Because this technique was discussed in the third chapter and involves no change or expansion in the method of production, no further comments are needed. However, it is important for the clarinetist to use the right-hand little finger to make the effect as obvious as possible.

IV

Forceful

The clarinet is given about four-fifths of the sonorities in Forceful. Melodic shapes, devoid of specific pitch indications, are found in the piano part.

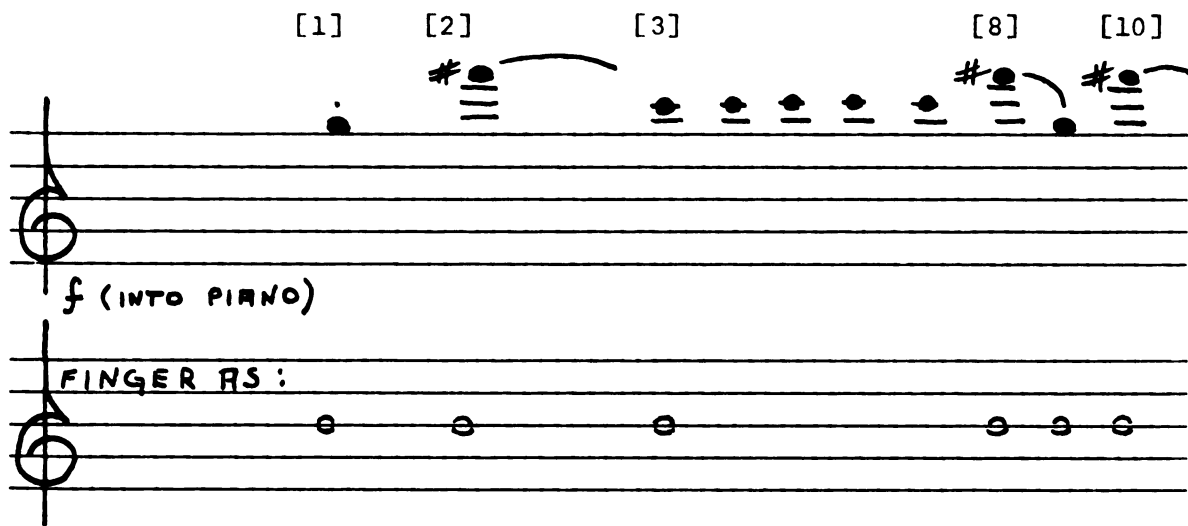


Figure 57. Smith, Wm. O., Mosaic for Clarinet and Piano, IV, sonorities 1-10, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

It was impossible to produce the acoustically feasible g'' with the b' fingering until an adequate explanation of the statement "finger as" was found outside the score. "... muting technique, producing results similar to the wa-wa mute for brass instruments, utilizes a thin rubber pad large enough to cover the diameter of the bell and placed in a piano (or on a table)."⁸⁰ An example of an identical sonority to that in question follows this quoted material, and provides the information needed for an appropriate solution. Although the composer did not include further instructions in the composition itself, it must be assumed that the pad-mute is correct in this instance.

The following mute has been proved successful through experimentation.

General Description: Foam Rubber Pad - rubber backing removed from a carpet tile.

80. Smith, "Contemporary Clarinet Sonorities", p. 14.

Dimensions: 1/8" thick

4 1/2" wide

7" long

Placement: On adjustable percussion practice pad with stand

The use of a percussion practice pad with a stand which is adjustable in height and angle avoids the physical manipulations required to insure complete coverage of the clarinet bell on a table or in a piano.

The mute nullifies intonation adjustments with the throat, jaw or air pressure. Accurate pitch can be achieved only with variations of pressure on the clarinet bell pressing into the pad-mute. The following table solidifies the techniques required.

Table 20. Muted Tones with b' Fingerings

Sonority Number	Fingered Tone	Tone Produced	Throat Adjustment	Jaw Placement	Air Pressure and Direction	Pressure of Clar. Bell into Mute
1	b'	g''	Open - extreme	Down - extreme	Light Blow Down	Slight
2	b'	f#'''	Open - medium	Down - medium	Medium Blow Down	Slight
3	b'	c'''	Normal	Normal	Strong - Blow Down	None

Physical adjustments similar to those required for sonority one in the preceding table are necessary for sonorities eighteen through twenty-five and twenty-nine through fifty-two. Sonorities twenty-six through twenty-eight require physical manipulations much like sonority two.

The image displays a musical score for a piece titled 'Mosaic for Clarinet and Piano, IV' by Wm. O. Smith. It consists of four staves. The first staff contains measures [18], [21], [26], and [29], each featuring a cluster of notes with various accidentals (sharps, flats, naturals) and a slur. The second staff is labeled 'FINGER AS:' and shows a sequence of notes with accidentals. The third staff contains measures [34] and [39], also with note clusters and slurs. The fourth staff continues the musical notation with more notes and accidentals.

Figure 58. Smith, Wm. O., Mosaic for Clarinet and Piano, IV, sonorities 18-52, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The delicate adjustments needed to achieve sonority twenty-six must be reversed after twenty-eight. These are difficult to perform, but if the clarinetist establishes the desired note mentally before it is played, the situation will be eased.

Establishing the muted $b^{b'''}$ and b''' at the conclusion of the movement requires a slightly tight throat, normal jaw placement, strong air

pressure, in addition to having the bell of the clarinet pressed rather forcibly into the mute. The muted a", sonority sixty, needs adjustments similar to sonority one in the table above.

Placing the teeth on the reed near the tip while using moderate air pressure will produce sonorities eleven and thirteen.

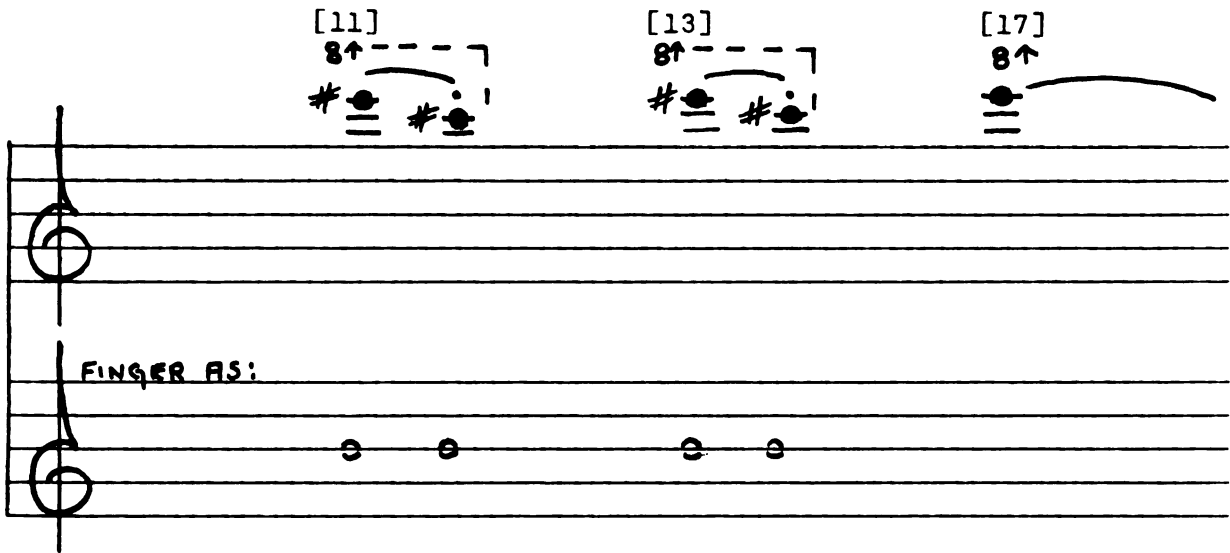


Figure 59. Smith, Wm. O., Mosaic for Clarinet and Piano, IV, sonorities 11-14, 17, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Less air pressure, with the teeth slightly back from the tip of the reed, will produce sonorities twelve and fourteen. Sonority seventeen, while similar to eleven and thirteen, requires a minute movement of the teeth away from the reed tip. As in all cases using the teeth on the reed, considerable care and experimentation is needed to establish the correct placement of the teeth and the appropriate air pressure.

The single multiphonic, sonority fifteen, is neither unique nor difficult to play.

The fourth movement of Mosaic for Clarinet and Piano includes several sonorities not found in any compositions previously discussed. The

accuracy and accessibility of these effects would be improved with appropriate detailed comments by the composer. Since these annotations are lacking, the performer must rely on personal experimentation.

V

Delicate

The clarinet has the larger number of sonorities in Delicate. Although precise alignment of the two parts is questionable at times, it appears that none of the sonorities are simultaneously initiated.

Flutter tongues, interrupted tones and the use of the pad-mute comprise the basic compositional material. The mute, due to its use with other techniques, will be discussed initially.

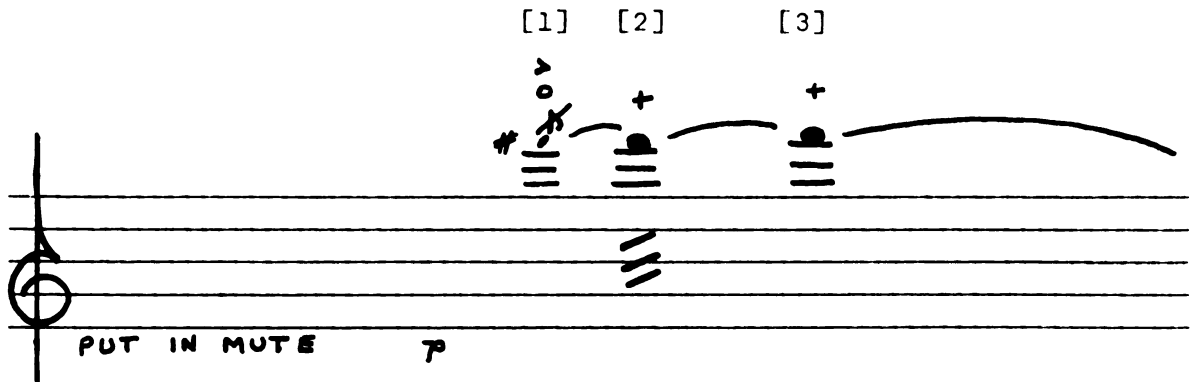


Figure 60. Smith, Wm. O., Mosaic for Clarinet and Piano, V, sonorities 1-3, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The score-included remarks concerning the mute present a problem of interpretation for the performer. Disregarding the personal characteristics which may allow the use of either the cork-stopper or cardboard-tube type of mute, the muted, non-muted, c#" would necessitate insertion of the stopper-tube mute while continuing the tone. This is impractical, as both hands are required to finger the given note. Therefore, the foam-rubber pad-mute must be utilized.

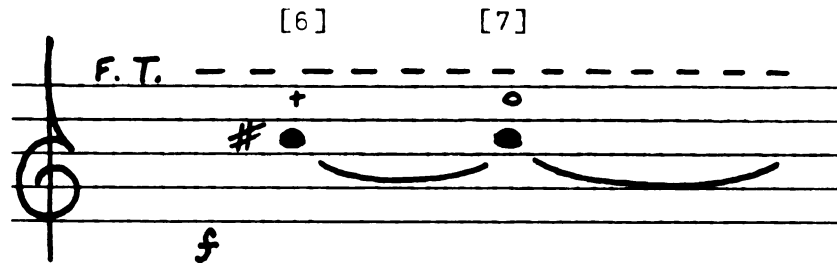
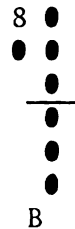


Figure 61. Smith, Wm. O., Mosaic for Clarinet and Piano, V, sonorities 6-7, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The fingering to be used throughout this movement for the muted tones $f\sharp'''$, d''' and a''' is the same fingering used in the last movement.



The bell of the instrument is then placed on the mute stand, as described previously, except for sonority four and twenty-two.

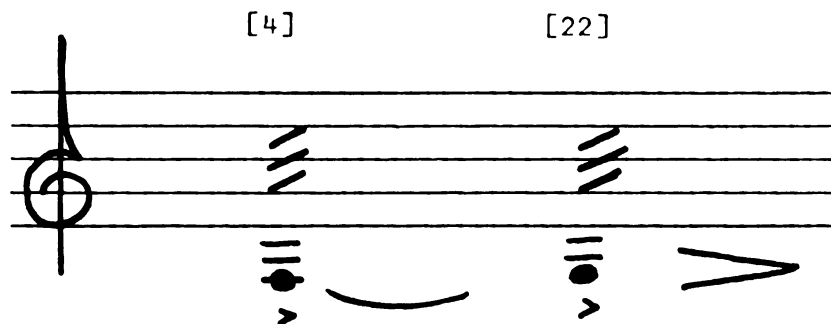


Figure 62. Smith, Wm. O., Mosaic for Clarinet and Piano, V, sonorities 4, 22, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The clarinet bell must be removed from the mute to produce the required sound for these notes as well as for all the non-muted sonorities of $f\sharp'''$, d''' , a''' and $g\sharp'''$. These notes all use the conventional fingerings for the open tones before changing to the muted fingering.

Although fingerings do not appear in the score, experimentation shows that the following notes can be played using the fingerings included in Figure 63, as can the retrograde of these tones in sonorities seventeen through nineteen. In all cases, the B key has been added to enhance the mute's effectiveness.

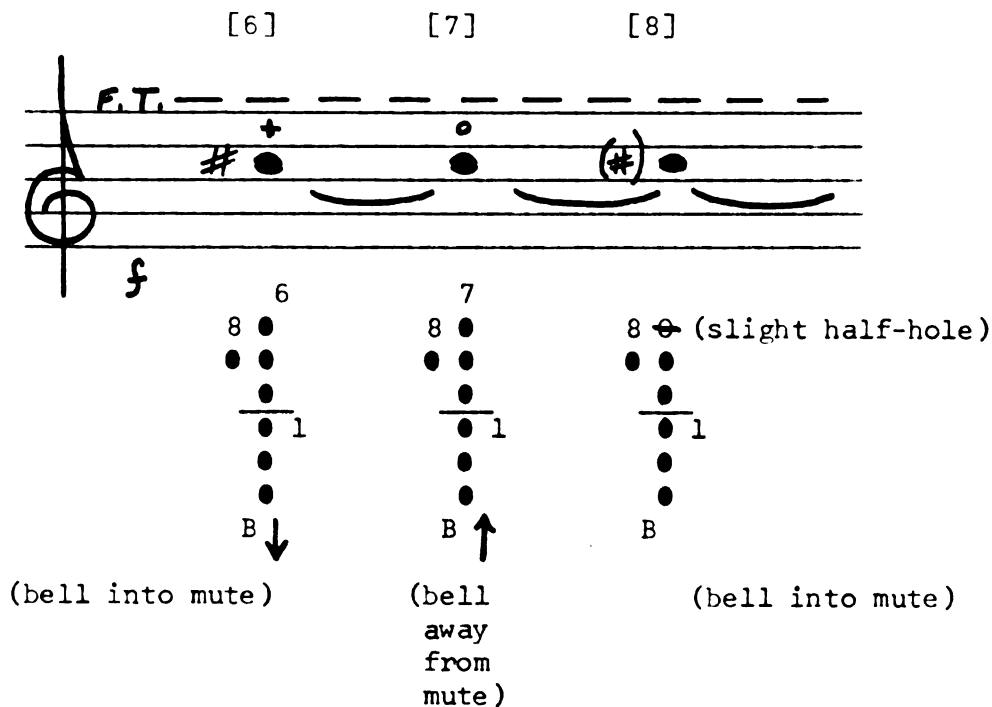


Figure 63. Smith, Wm. O., Mosaic for Clarinet and Piano, V, sonorities 6-8, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The flutter tongues and interrupted tones called for in Delicate do not present any additional problems.

Although the various effects used throughout this movement are not overly difficult to play, the lack of adequate performing instructions hampers the accurate realization of the clarinet part.

VI

Electric

The unaccompanied clarinet again accounts for the majority of sonorities in this movement.

The use of a sustained flutter-tongue, "air-only" sound with the rapid insertion of various monophonic tones, is similar in concept to the fourth movement of Variants and the first movement of Fancies.

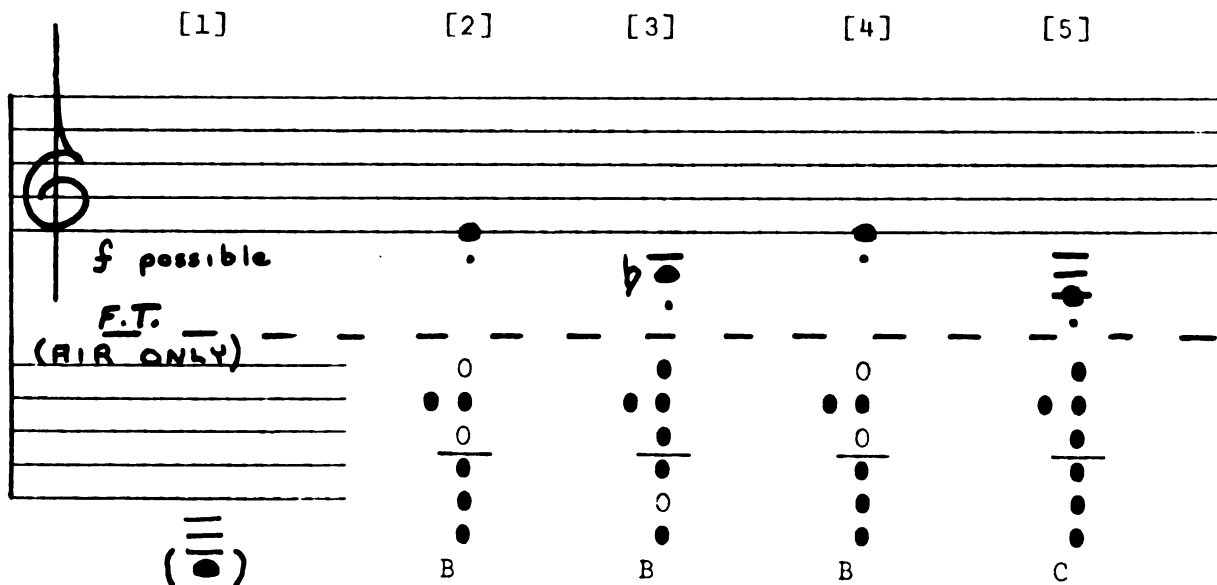


Figure 64. Smith, Wm. O., Mosaic for Clarinet and Piano, VI, sonorities 1-5, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

While several of the interjected monophonic tones are conventional in all respects, some utilize unusual fingerings for non-traditional timbres. "...such a rich gamut of coloristic effects, obtained by using different fingerings, offers notable possibilities of using various timbres ...on a succession of notes of different pitch."⁸¹ Although

81. Bartolozzi, New Sounds for Woodwinds, p. 21.

Bartolozzi⁸² classifies each timbre modification, it is not the intent of this discussion to deal with the evaluation of color classifications. However, further explanation of the sonorities which are not readily produced with the composer's score-indicated fingerings should be beneficial to the performing clarinetist.

Sonority eight can be produced very softly with the given fingering if extremely light air pressure is exerted. However, too much air support will render a b' and must be avoided.

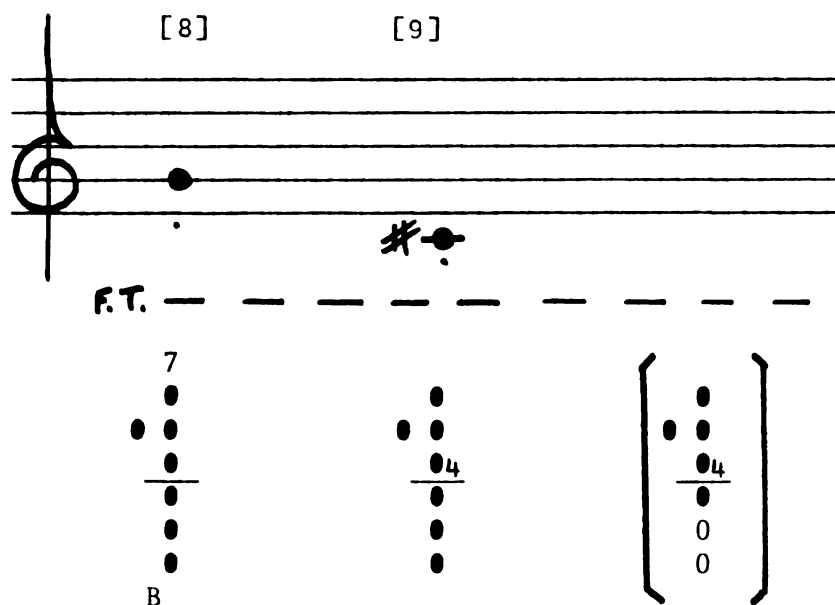


Figure 65. Smith, Wm. O., Mosaic for Clarinet and Piano, VI, sonorities 8-9, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The fingering in parentheses for the ninth tone and the identical eighteenth sonority avoids the prevalent c' encountered with the composer's fingering.

82. Ibid.

.....

.....

The sustained "air-only" flutter tongue will render a flutter tongue effect on any sustained monophonic. Such an occurrence cannot be avoided considering the nature of tone production on any wind instrument.

The musical notation shows a staff with notes and slurs, indicating sustained sounds. Below the staff, a series of symbols (including < >, b, and #) represent specific techniques or articulations. Below these symbols, a series of dots and numbers (8, 7, 4, 0) represent fingerings for the clarinet keys. The fingerings are organized into groups corresponding to the sonorities [11], [12], [16], and [19].

Figure 66. Smith, Wm. O., Mosaic for Clarinet and Piano, VI, sonorities 11-19, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The individual production of either the "air-only" flutter tongues or the non-traditional alterations of timbre, both shown above, will not be individually difficult for the performer. However, the clarinetist will find that the subtle manipulation of air pressure is critical to alternate "air-only" flutter tongues and non-traditional alterations of timbre. The reed, mouthpiece and physical characteristics are individually different for each clarinetist, and thus require individual experimentation to accurately determine the necessary manipulations.

In contrast to previous movements, the inclusion of significant performing instructions within Electric provides adequate information for the correct realization of the composer's intentions.

VII

Lively

The clarinet accounts for slightly less than one-half of the total sonorities in Lively. No sonorities seem to be begun simultaneously, though such a statement is arbitrary considering the illegibility of the manuscript.

The composer's intentions are not clear because of the meager amount of information presented in the score.

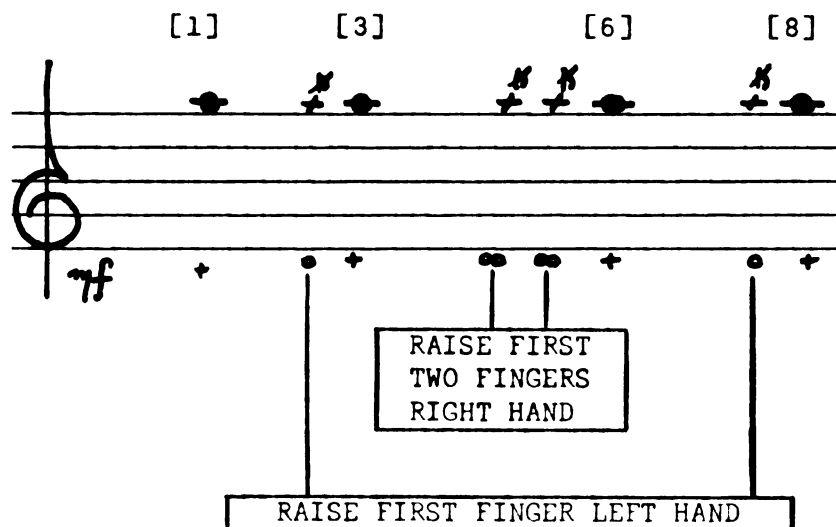


Figure 67. Smith, Wm. O., Mosaic for Clarinet and Piano, VII, sonorities 1-8, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Since the composer gives instructions to remove the mute at the conclusion of the movement, and no mute-related instructions are given up to that point, it must be assumed that the mute is used throughout. This assumption is further strengthened by the inclusion of con sord in the Bandwagon article⁸³. The intervallic similarities between the initial

83. Smith, "Contemporary Clarinet Sonorities", p. 14.

1. The first part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

2. The second part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

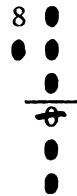
3. The third part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

4. The fourth part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

5. The fifth part of the document is a list of the names of the persons who have been appointed to the various offices of the city.

a'''s via the c'' fingering given in the Bandwagon example⁸⁴ but not in the score, and many notes and fingerings in the fourth movement of this composition, indicate that the mute should be the foam-rubber-pad type used previously.

The composer relates in the score that the third sonority, a'' in the figure above, shown by ∞, should be produced by lifting the first two fingers of the right hand from the preceding fingering. However, contradictory information in Bandwagon⁸⁵ presents the appropriate fingering as:



Because both fingerings produce a third sonority, the performer is advised to experiment to determine his personal preference.

All the fingerings given in the score for sonorities nine through twenty are adequate to produce the various timbric modifications required.

[9] [11] [14] [18] [20]

Figure 68. Smith, Wm. O., Mosaic for Clarinet and Piano, VII, sonorities 9-20, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

84. Ibid.

85. Ibid.

Performing instructions for the mute in movement four should be reviewed before attempting these sonorities.

The vibrato which becomes gradually wider throughout the sustained b", sonority twenty-one, does not present any performing problems.

The alternating f's in the final sonorities will "speak" more easily if the bell of the clarinet is merely placed on but not pressed into the pad-mute.

VIII

Energetic

The seventy-three sonorities for clarinet in this movement include the return and/or expansion of several performing techniques used in Variants for Solo Clarinet and Fancies for Clarinet Alone. The instructions and fingerings given in the score are adequate for performance purposes.

Although interrupted tones are used several times throughout the movement, no performing instructions beyond those previously discussed are required except for the normal adjustments needed for the wide leaps which often precede them.

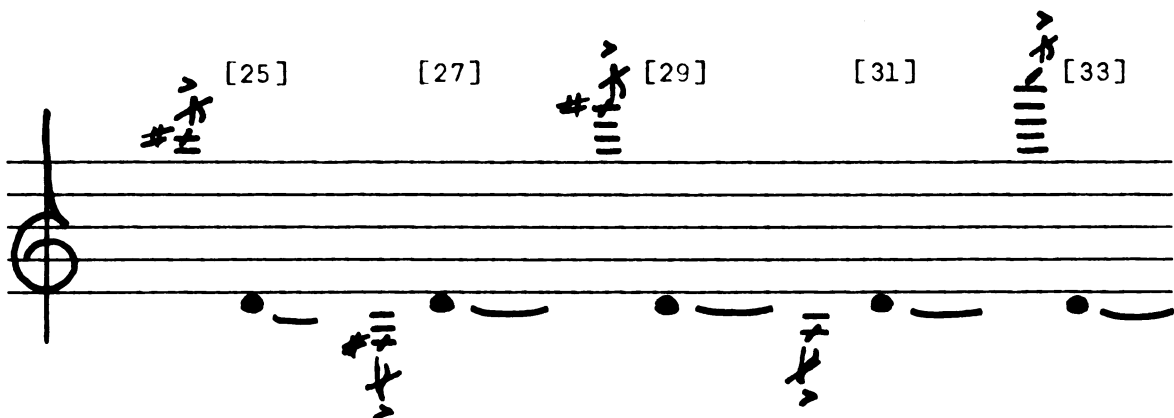


Figure 69. Smith, Wm. O., Mosaic for Clarinet and Piano, VIII, sonorities 24-33, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The flutter tongue is utilized three times within this movement. The clarinetist must be certain to use this technique only for those sonorities marked with F.T. and should not continue the flutter tongue for notes using the effect of the interrupted tones.

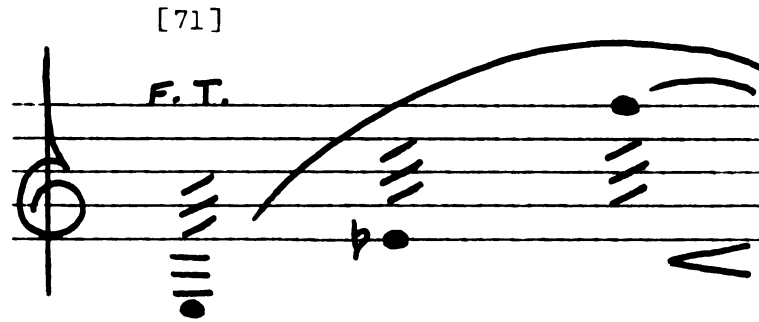


Figure 70. Smith, Wm. O., Mosaic for Clarinet and Piano, VIII, sonorities 71-73, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The example above would be more effective musically if the interrupted tones following the flutter tongue gradually changed from a fast, intense tongue to a slower, more legato type of articulation.

The two glissandi require a combination of lip and finger manipulations.

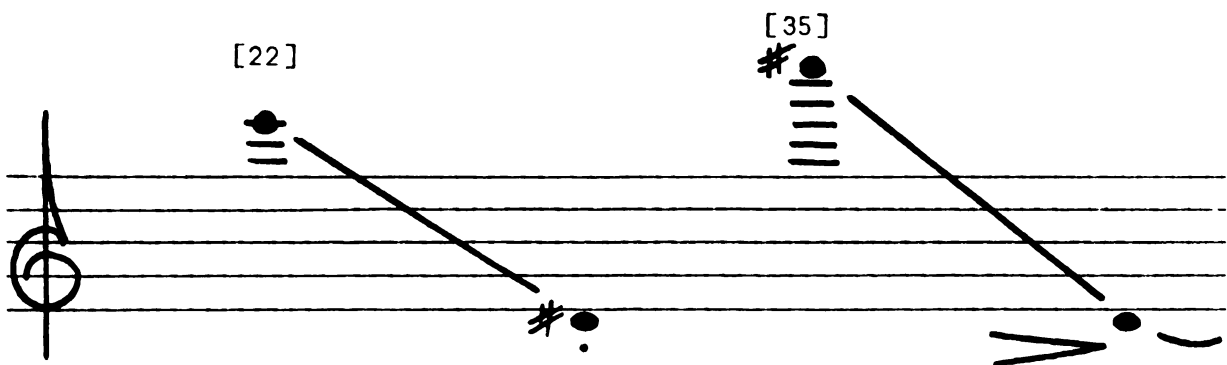


Figure 71. Smith, Wm. O., Mosaic for Clarinet and Piano, VIII, sonorities 22-23, 35-36, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The glissandi range is expanded beyond similar previous examples, but the technique remains basically unchanged.

The following example is representative of many of the remaining monophonic tones. According to instructions in the score, the notes in brackets must be played significantly faster than their spacing suggests.

[1]

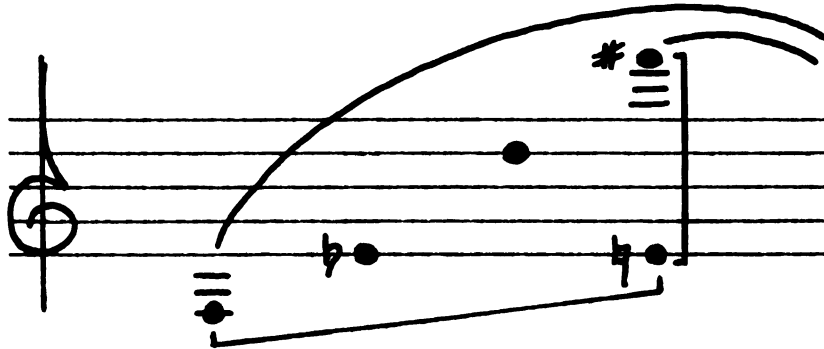


Figure 72. Smith, Wm. O., Mosaic for Clarinet and Piano, VIII, sonorities 1-4, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Performing a multiphonic sonority after several rapid monophonics, shown in Figure 72, will be easier if the clarinetist makes all possible throat, jaw and air pressure adjustments for the multiphonic sonority before it is reached.

The repetition of previously encountered performing techniques and the inclusion of many conventional monophonic tones make the performance of this movement easier than that of the previous movements.

IX

Forceful

The twenty-three primarily multiphonic clarinet sonorities within this movement are interspersed with seventeen sonorities for the piano.

Most of these multiphonics present no new performing problems for the clarinetist. The fingerings given in the score are adequate if the suggestions for relaxation of the throat and embouchure, jaw extension and moderate air pressure are remembered and utilized.

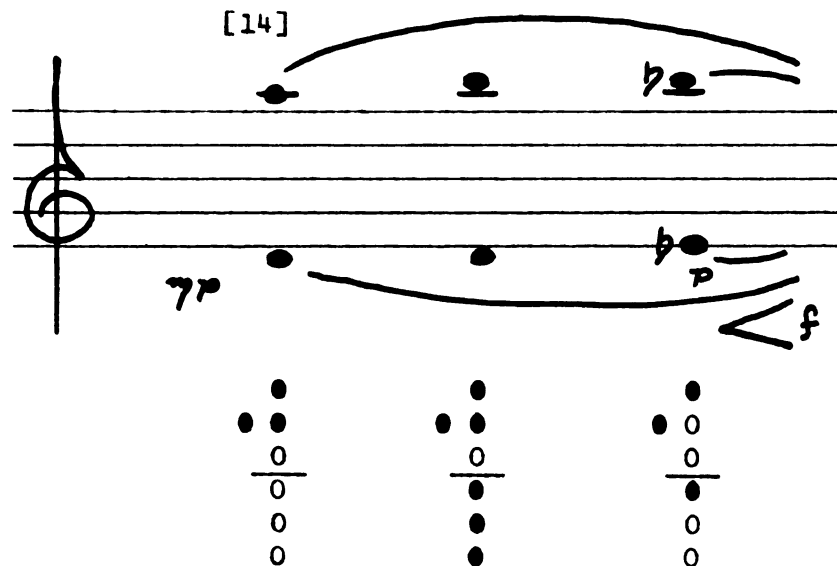


Figure 73. Smith, Wm. O., Mosaic for Clarinet and Piano, IX, sonorities 14-16, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

However, some of the multiphonic sonorities are very difficult to play, and thus present new performing problems for the clarinetist.

Although the fingerings given in the score are adequate, the performer is forced to make contrasting physical adjustments. The embouchure and jaw must exert considerable pressure upon the reed to insure the upper tone in each case while the throat remains very relaxed to maintain the lower note. These delicate adjustments represent an advanced multiphonic-performance-technique, and should not be undertaken by any clarinetist lacking considerable experience with multiple-sonorities.

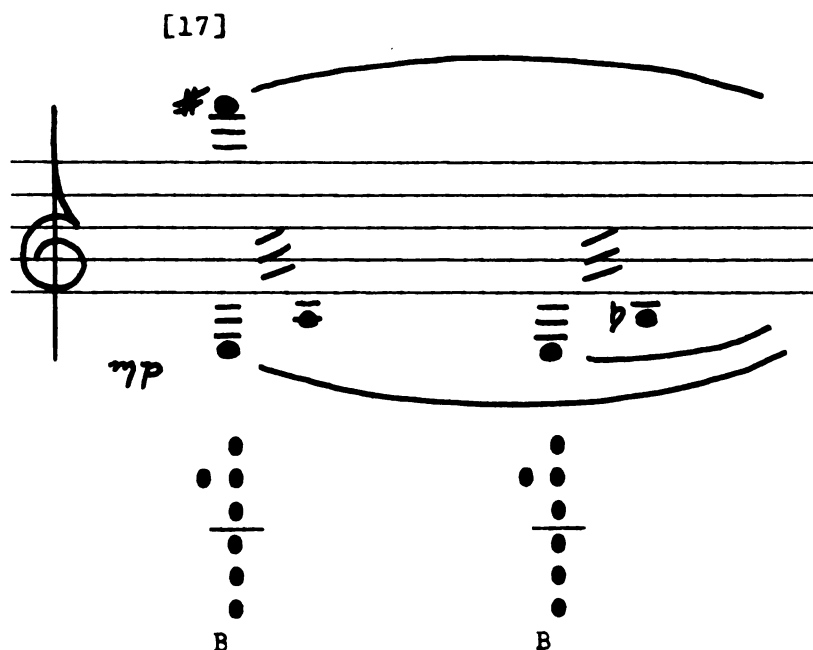


Figure 76. Smith, Wm. O., Mosaic for Clarinet and Piano, IX, sonorities 17-18, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Although the maintenance of an upper tone, while at the same time producing a tremolo on the lower tone, was discussed at length for the second movement of Fancies, the extended separation of the notes in this instance creates more complex problems for the performer. The clarinetist will have less difficulty achieving this effect if the jaw is extended down the reed. The throat should be relaxed and moderate air pressure

should be used. The tremolo can be accurately produced by alternating the fingers marked with arrows in the example below:

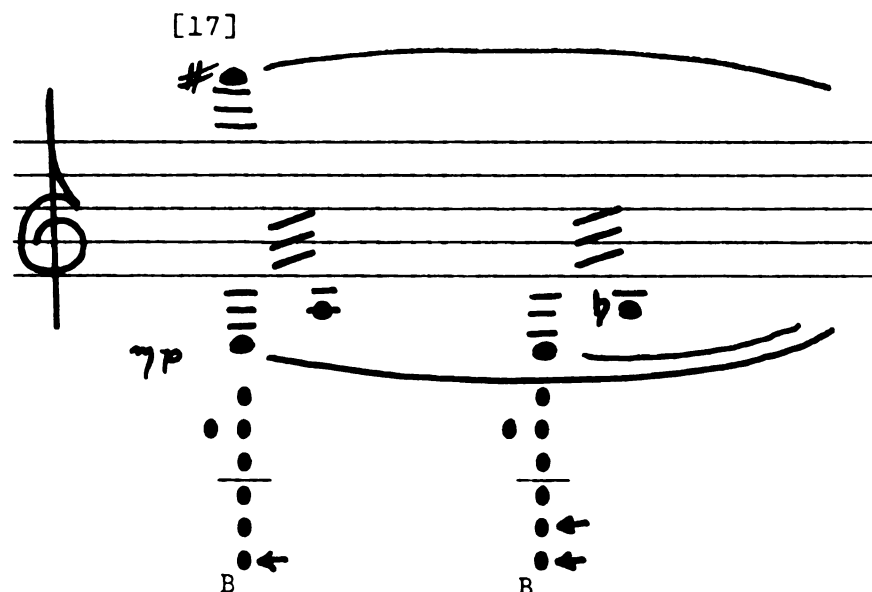


Figure 77. Smith, Wm. O., Mosaic for Clarinet and Piano, IX, sonorities 17-18, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Considerable caution during the dynamic changes on the b^b shown below will be necessary to avoid a flat pitch as the altered pitch gets louder.

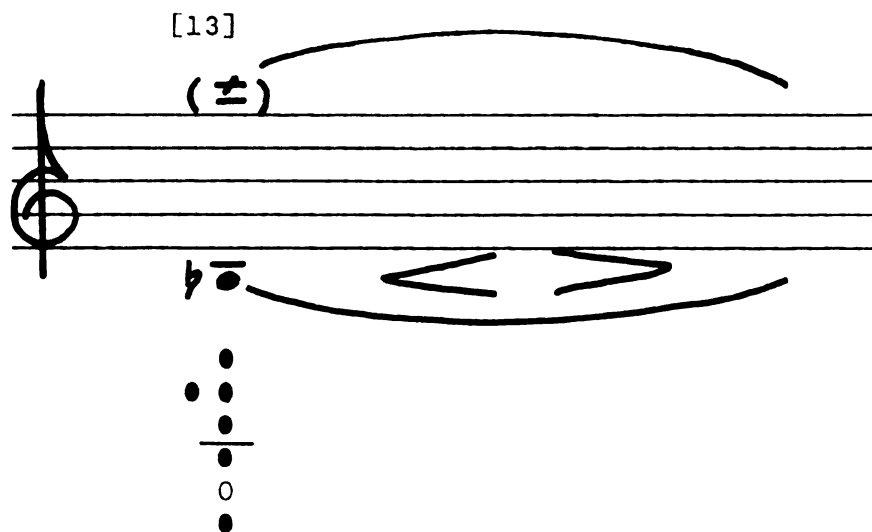


Figure 78. Smith, Wm. O., Mosaic for Clarinet and Piano, IX, sonority 13, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Since the embouchure sustains physical abuse through the various manipulations needed in this movement, the possibility of performing Forceful earlier in this composition is physically impractical.

X

Tranquil

The twelve clarinet sonorities in the tenth movement of Mosaic are interpolated between twenty-four sonorities for piano. The multiphonic idea of sustaining the upper or lower tone with simultaneous trills or tremolos in the opposite extremity was used in both Variants and Fancies.

The initial sonorities sustain the upper tones while producing tremolos on the lower notes.

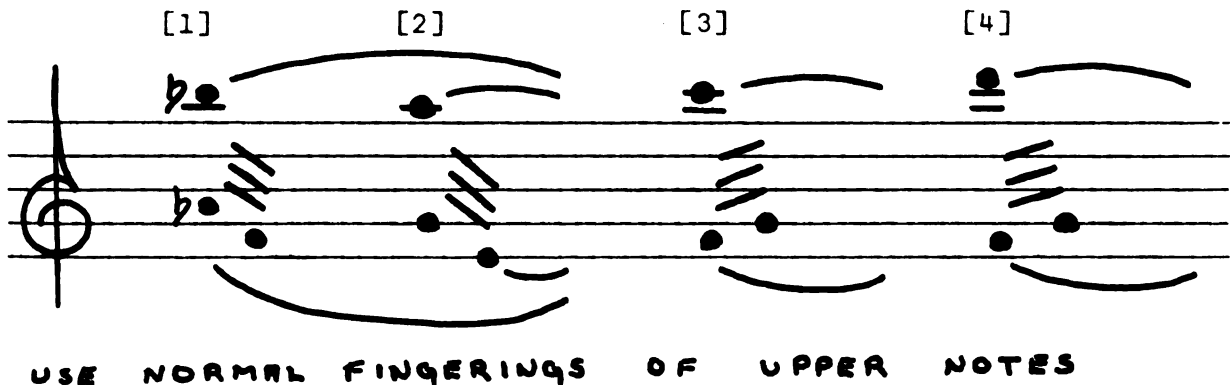


Figure 79. Smith, Wm. O., Mosaic for Clarinet and Piano, X, sonorities 1-4, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Because the composer did not provide adequate fingering information for the tremolos, and because appropriate fingerings are not available in other sources, the fingerings shown in the table below are suggested. It is hoped that the following information will help other clarinetists work toward more appropriate solutions to these problems.

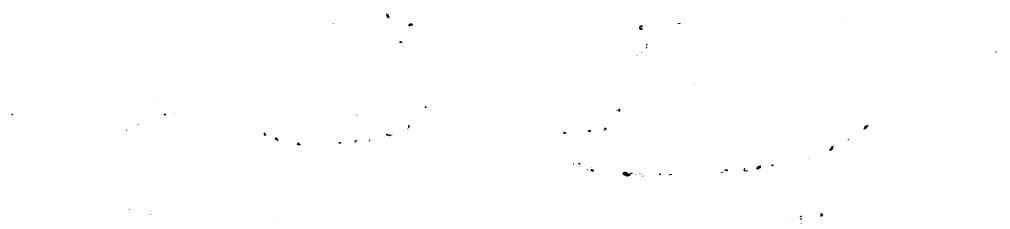


Table 21. Tremolo Fingerings

Sonority Number	Score-Indicated Tremolo	Actual Tremolo Produced	Using Key for Tremolo	From Basic Fingering
1	a ^{b'} -f	g ^{b'} -f'	F	b ^{b''}
2	g'-e'	f'-e'	3rd finger - L.H.	a''
3	f'-g'	g'-a'	6	c'''
4	f'-g'	f#'-g'	1st finger - R.H.	c'''

All the remaining sonorities are multiphonics with sustained lower tones and trilled upper tones. The composer, though including basic fingerings in the score, did not indicate the proper key or finger to be used for the trill. Therefore, the symbol, ←, is used to show the necessary manipulation for the trills.

Figure 80 shows musical notation for sonorities 9-13, including a treble clef, notes, and trills marked with [9], [10], and [13]. Below the staff are five fingering diagrams for the right hand, each showing a vertical stack of fingers (8, 0, 4, 0, 0) with arrows indicating trill movements. The first diagram is for D, the second for 0, the third for 4, the fourth for 0, and the fifth for D.

Figure 80. Smith, Wm. O., Mosaic for Clarinet and Piano, X, sonorities 9-13, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

By playing each sonority piano, the lower note will have a sub-tone quality.

The fingering for sonority five in the score does not correspond to the fingering given for the identical sonority in Variant's fourth movement. Experimentation with both fingerings has shown the latter, enclosed in brackets below, to be preferable.

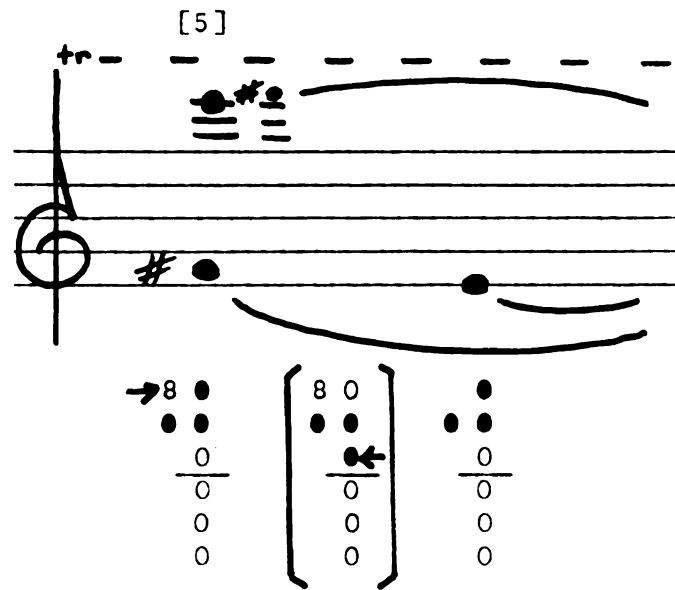


Figure 81. Smith, Wm. O., Mosaic for Clarinet and Piano, X, sonorities 5-6, Copyright 1972 by MJQ Music, Inc , All rights reserved, Used by permission, Reproduction prohibited.

The uninterrupted movement from an $f\#'$ to an e' above and from an e^b' to an f' , shown below, will necessitate some subtle physical manipulations with a change of fingering in both cases.

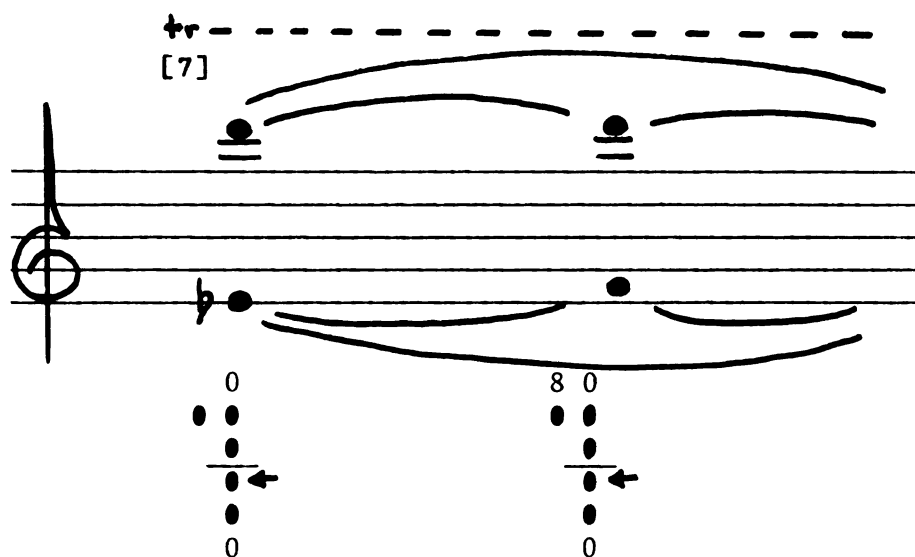


Figure 82. Smith, Wm. O., Mosaic for Clarinet and Piano, X, sonorities 7, 8, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

As the pitch descends, the performer must relax the throat and embouchure and blow the air down. When the reverse effect is desired, the manipulations must be reversed also.

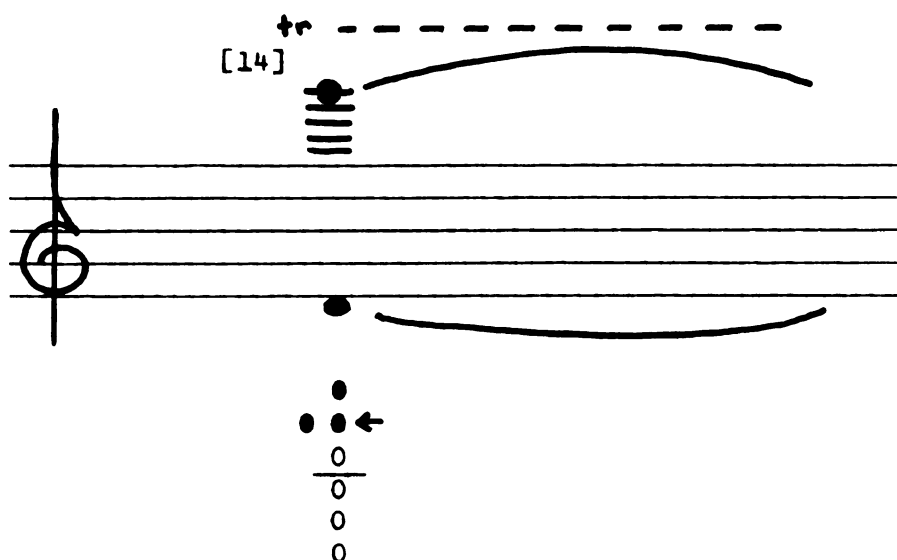


Figure 83. Smith, Wm. O., Mosaic for Clarinet and Piano, X, sonority 14, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The conflicting physical adjustments needed for a multiphonic with the intervallic range seen above becomes more difficult with the inclusion of a trill. This increases the already unstable nature of the sonority, and requires a considerable amount of personal experimentation and multiphonic experience to produce accurately. A tight throat, extended jaw and moderate air pressure ease the difficulty.

XI

Dramatic

The foam-rubber-pad mute is used for all sonorities in the final movement of this composition except for eight multiphonics.

According to the composer's instructions⁸⁶, the foam-rubber-pad mute should cover the bell of the clarinet only when the mute symbol, +, is indicated in the score.

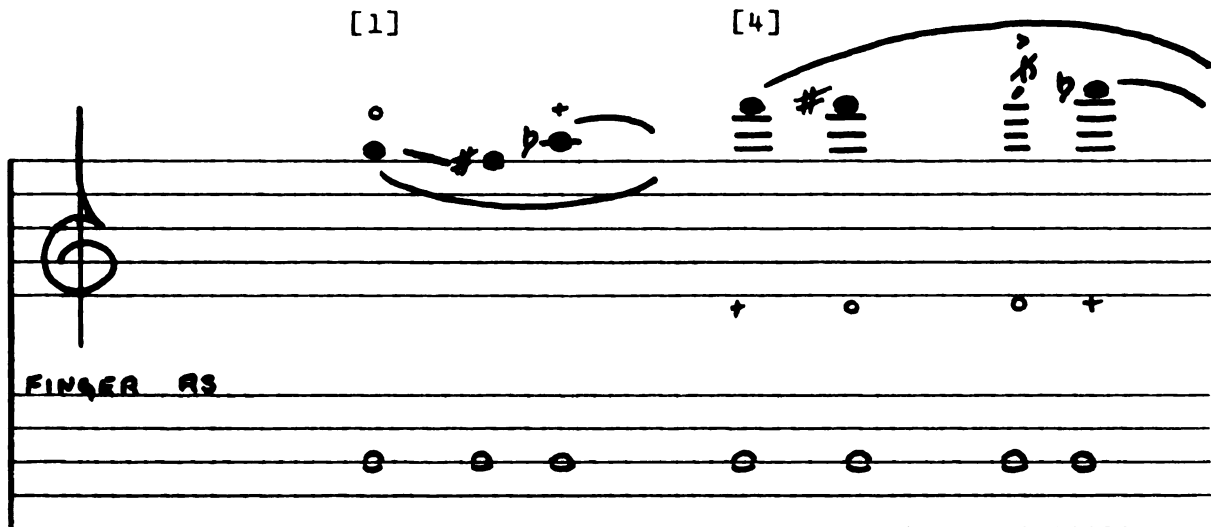


Figure 84. Smith, Wm. O., Mosaic for Clarinet and Piano, XI, sonorities 1-7, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

86. Ibid.

[4]

[5]

In essence, however, the use of the mute is more complicated than the simple pressing of the clarinet bell into the pad at the appropriate time.

By placing, but not pressing, the instrument's bell on the mute it is possible to produce the movement's initial no-mute indicated sonority. This sound cannot be rendered in any other manner.

The glissando which follows requires relaxation of the embouchure, extension of the jaw and blowing the air down, similar to bringing a sharp note down to pitch. Once the second sonority has thus been achieved, all manipulations must be reversed while pushing the clarinet bell into the mute until the proper pitch for the third sonority is reached.

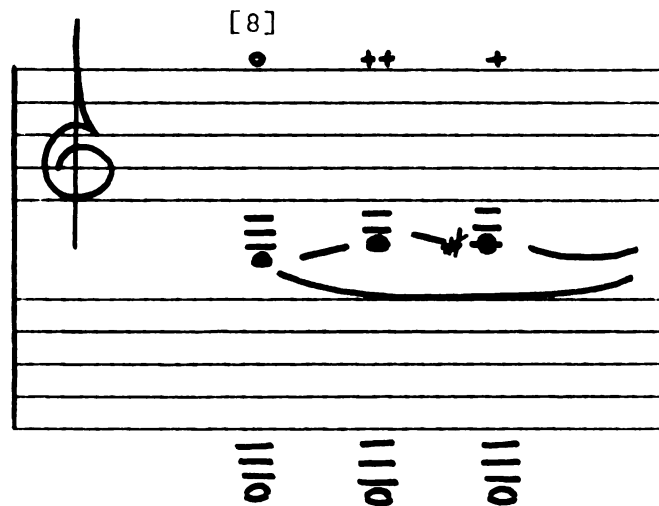


Figure 85. Smith, Wm. O., Mosaic for Clarinet and Piano, XI, sonorities 8-10, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The lack of an adequate explanation of symbols by the composer which would explain the ++ over the g# is lamentable. Since + is the symbol used to indicate the use of the mute, the ++ symbol must logically represent a mute-effect also. This hypothesis is further strengthened by an inability to glissando from the e up a minor third with any combination of embouchure, jaw and mute-manipulations. However, experimentation has

shown that altering the fingering in the score by raising the little finger, on the 2 or B key, very slightly while pressing the clarinet into the mute will produce the desired muted g#. As this fingering technique is reversed, the 1 or A key can be depressed very lightly to produce the glissando down to the f#. The clarinetist will find that this subtle technique produces the glissandi and various muted timbres while using the basic fingerings shown in the score.

The remaining muted tones are relatively simple. The performer needs only to achieve the correct pitch without slipping beyond or below the desired note. A discriminating sense of relative pitch and considerable experience will gradually resolve this problem.

Most of the multiphonics in this movement do not require the cultivation of any new performing techniques beyond those discussed previously.

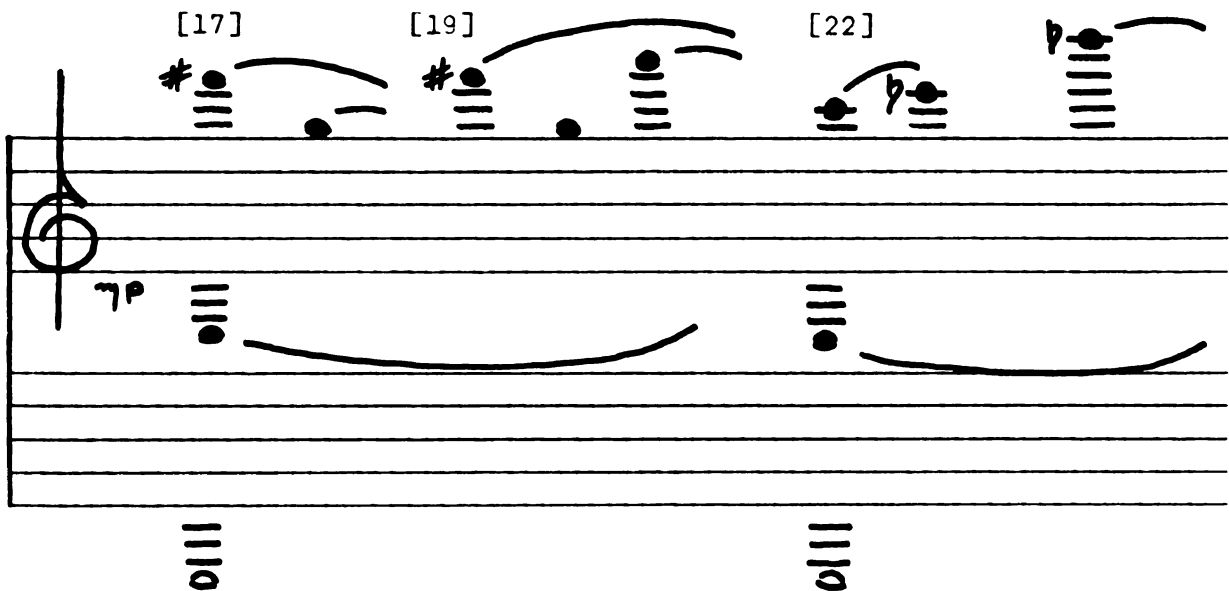


Figure 86. Smith, Wm. O., Mosaic for Clarinet and Piano, XI, sonorities 17-24, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

The extreme intervallic range of sonority twenty-four again requires the tight-loose multiphonic performance concept mentioned earlier to maintain the simultaneous upper and lower tones.

The final sonority of Dramatic reflects the hum-play ideas used in the initial movement of this composition with the concurrent use of the mute and changing dynamics.

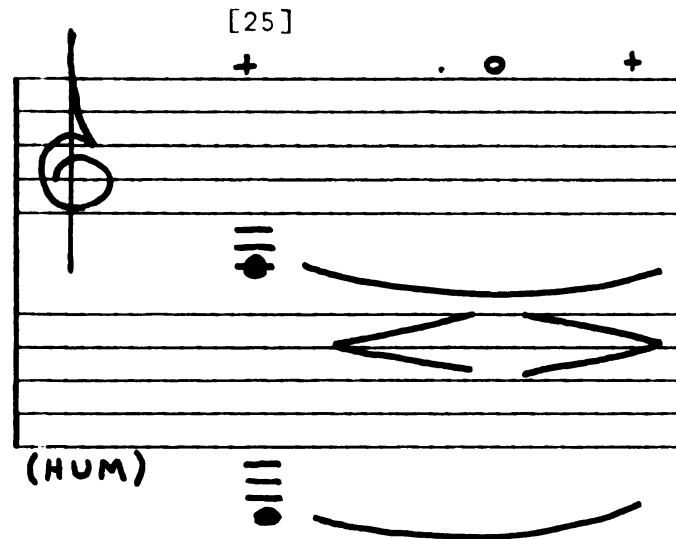


Figure 87. Smith, Wm. O., Mosaic for Clarinet and Piano, XI, sonority 25, Copyright 1972 by MJQ Music, Inc., All rights reserved, Used by permission, Reproduction prohibited.

Although this sonority requires no new performing skills, the combination of effects demands the clarinetist's concentration upon the various, simultaneous physical adjustments needed to achieve the score's intentions while maintaining the correct pitches.

Summary

The preceding discussion of Mosaic for Clarinet and Piano illustrates the return and/or expansion of many performing techniques encountered in the previous chapters and the introduction of several unique avant-garde performing techniques.

It has been necessary to develop a number of hypotheses since adequate information is not included within the score. This deficiency could be related to the machine-copied appearance of the score. It is probably the composer's own performance score which he alone can decipher accurately. Whatever the cause, insufficient and apparently inaccurate information in the clarinet part creates an extremely difficult situation for the performer. "One cannot help wonder at the wisdom of such undefined inclusions in an exacting art."⁸⁷

This kind of composition demands a lengthy investigation of the various skills and manipulations involved. However, since clarinetists are encouraged to explore new literature of this type, hopefully the composer will discover and publish the additions and corrections necessary for an accurate performance of the score.

87. David Lewis, "Music Reviews: Transparence pour Clarinette et Metal" (The Clarinet, vol. 2, No. 1, December 1974), p. 20.

CHAPTER VI

SUGGESTED SEQUENCE of STUDY

The intent of the previous chapters was to discuss in detail the various performing skills needed by the clarinetist in four compositions by William O. Smith. The clarinetist, through the study and the performance of this literature "will experience fresh and exciting problems which will tax his playing ability..."⁸⁸ These new requirements and the suggestions presented for the solutions of their often formidable problems will be more valuable to the clarinet performer/teacher if some organized study sequence is included.

This chapter presents four suggested plans for exploring this group of compositions. It will then be appropriate to conclude this discussion with suggestions for making this kind of literature for clarinet more easily accessible to the accomplished clarinetist.

PLAN I

The initial method of pedagogical arrangement is the least complex and detailed. Plan I provides the suggested order of study for the entire composition.

A brief discussion to justify and/or explain the suggested sequence is presented in this and the following plans of study.

88. Schwadron, "Contemporary Music for Clarinet", p. 73.

FIVE PIECES for CLARINET ALONE

As emphasized in Chapter II, the conventionally-trained clarinetist will not encounter a great number of problems in learning to play Five Pieces. The use of common twentieth-century compositional techniques supersedes the two isolated instances which demand rather elementary changes of timbre.

FANCIES for CLARINET ALONE

Rather extensive explanations of performing techniques and a minimum number of avant-garde sonorities in each movement of Fancies indicate the desirability of the exploration of each of these multiple-sound studies before proceeding to more complicated literature.

VARIANTS for SOLO CLARINET

Although Variants also includes detailed explanations of performing requirements, the repetition and expansion of several monophonic and multiphonic performing techniques beyond that found in Fancies demand its study in this sequence.

MOSAIC for CLARINET and PIANO

The lack of sufficient explanations of performing techniques, the repetition, expansion, combination and introduction of various new performing skills for the clarinetist, the necessity of collaborating with an avant-garde-experienced pianist and the inherent demands of any ensemble situation justify the classification of Mosaic as the most difficult composition within this study.

In summary, the compositions should be approached in the following sequence:

Five Pieces for Clarinet Alone

Fancies for Clarinet Alone

Variants for Solo Clarinet

Mosaic for Clarinet and Piano

PLAN II

Due to the multi-movement nature of each composition in this study, a subdivision of each composition ranking the movements in a suggested-study-sequence is the basis for Plan II. This ordering of movements is based on the similarity of the various skills needed for the previous and/or following movement, and on the increasing technical difficulties from one movement to another.

FIVE PIECES for CLARINET ALONE

The arch-form construction of Five Pieces suggests a logical method of study through a consecutive examination of related movements in succession.

The rather slow notes in the second movement and the slow tempo in the fourth movement and the general use of slurs in both cases are consistencies worthy of initial consideration.

The similar but faster tempos, pointillism and groupings of various sixteenth-note patterns relate the initial and the final movements. These characteristics, which make the movements harder to play, can be emphasized with the side-by-side study of movements one and five.

The central nature of the middle movement in the arch-form, the more difficult performing skills needed, and the inclusion of altered-timbre pitches justify its final position in this sequence.

Thus, it is suggested that the various movements of Five Pieces for Clarinet Alone can be advantageously approached in the following order:

- II - Flowing
- IV - Singing
- I - Vigorous
- V - Spirited
- III - Rhythmic

FANCIES for CLARINET ALONE

The extensive use of new performing techniques in Fancies requires a sequential study which accounts for the difficulty in performing each technique and the proper adjacent placement of similar, but more arduous material, according to its level of difficulty. Because each of the performing requirements has already been discussed in Chapter IV, Table 22. is used here to explain and justify the suggested order of study.

The table is so constructed that the performing techniques are listed down the left side of the table in their order of difficulty. The movement's suggested order of study is shown across the top of the table and rated according to an estimate of relative difficulty. Within the table the various performing techniques are ranked according to an evaluation of the arduousness of the technique as related to the same technique used in other movements: the higher the number in the table, the more difficult the technique.

VARIANTS for SOLO CLARINET

The use of a variety of monophonic and/or multiphonic performing techniques in each movement of Variants demands a more complex evaluation of the required skills in order to determine an appropriate sequence of study. The following table, identical in format to Table 22., is utilized to clarify a sequence of study for each performing technique.

Without the recommended investigation of the performance demands in Fancies prior to the clarinetist's approach to Variants any suggested order of study will be extremely difficult for the uninitiated performer.

Table 23. Suggested Order of Study by Movement - Variants for Solo Clarinet

Plan II

Performing Technique Required In Order of Difficulty	Suggested Order of Study of Mvts. by Relative Difficulty					
	Order 1	2	3	4	5	6
	Movement Number					
	II	I	V	III	VI	IV
Monophonic						
Key Clicks					1	
Key Vibrato		1				
Interrupted Tones				1		
Flutter Tongue					1	
Trills			1			
<u>Glissandi</u>			2	3	1	
Harmonic Tones			1		2	
High Notes w/Teeth				1		
Tuba Mute				1		
Multiphonic						
Hum-Play						
Equal Notes	1	2	3			
From Monophonic		1			3	2
Upper Move - Lower Same						1
Lower Move - Upper Same		1				
w/Trill Above						1
w/Trill Below						1
w/Tremolo All					1	

MOSAIC for CLARINET and PIANO

The utilization of a multitude of monophonic and/or multiphonic performing techniques in each movement of Mosaic demands more complicated methods of evaluating the individual and combined skills required in the study process and are vitally more important to the clarinetist for study purposes. The following table, identical in format to Tables 22. and 23., will be utilized to clarify a sequence of study for each technique which has been discussed previously in Chapter V.

The clarinetist will find the analysis and the adequate solution of the problems in Mosaic more dependent upon past experience, since there are no detailed instructions in many instances.

Again, all suggestions for the proper study sequence of the movements within this composition are the result of personal experimentation.

Table 24. Suggested Order of Study by Movement - Mosaic for Clarinet and Piano - Plan II

Performing Technique Required In Order of Difficulty	Suggested Order of Study by Movements by Relative Difficulty of Techniques Used											
	Order of Study			Movement Number III VIII II	IX	I	X	VI	V	VII	IV	11
	1	2	3									
Monophonic						1						
Air Only	2						1					
Key Clicks			1									
Key Vibrato		1										
Vibrato		1						2				
Interrupted Tones						3			1	2		
Flutter Tongue						3			1	2		
Flutter Tongue - Air Only									1			
Changes of Timbre					1			2		3		
Glissandi		1										2
Harmonic Tones											1	
High Notes w/Teeth											1	
Pad Mute									1	2	3	4
Pad Mute w/Wa-Wa									1	2		3

"Table 24 (cont'd.)"

Performing Technique Required In Order of Difficulty	Suggested Order of Study by Movements by Relative Difficulty of Techniques Used										
	Order 1	2	3	4	5	6	7	8	9	10	11
	Movement III	VIII	II	IX	I	X	VI	V	VII	IV	XI
Multiphonic											
Hum-Play					2						1
Equal Notes	2		1	4	3						
From Multiphonic		1									
From Air Only Flutter Tongue							1				
Upper Move - Lower Same			1	4	3						2
Lower Move - Upper Same			2	3	1						
w/Trill Above						1					
w/Trill Above - Lower Moves						1					
w/Tremolo Above					1						
w/Tremolo Below				1		2					

PLAN III

Developing a separate study sequence for each monophonic or multiphonic performing technique provides an alternate method of studying these compositions. Because each of the various techniques has been discussed extensively in the appropriate chapter, Table 25. is used to present this alternate method.

In the table the performing techniques are listed down the left side in the order of their difficulty. The suggested order of study is shown in columns across, labeled first, second, third, etc., according to the composition and the movement of the composition. However, the clarinetist must isolate the particular effect under investigation within the movement for study of the appropriate technique. The compositions are identified as follows; FP= Five Pieces for Clarinet Alone, V= Variants for Solo Clarinet, F= Fancies for Clarinet Alone, M= Mosaic for Clarinet and Piano. Following the identification of the composition, each movement is labeled with its appropriate Roman numeral.

Due to the traditional nature of most performing techniques in Five Pieces, it is not included in Table 25. except for the change of timbre in its third movement. The conventional monophonics from all the compositions under study are not included in the table.

The clarinetist will encounter a problem in attempting to study the sonorities which require more than one simultaneous performing technique. It is recommended that each separate skill be the single technique applied to the sonority in such instances. The combination of these concurrent effects can then be examined as each movement is studied in its entirety.

Table 25. Suggested Order of Study by Performing Technique - Plan III

Performing Tech. Req. Order of Difficulty	Suggested Order of Study										
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th
Monophonic											
Air Only	M-I										
Key Clicks	M-VI	M-III	V-VI								
Key Vibrato	V-I	M-II									
Vibrato	M-VII										
Interrupted Tone	M-VIII	V-III	M-V								
Flutter Tongue	M-V	V-VI	M-VII	F-V	M-I						
Flutter Tongue - Air Only	M-VI										
Changes of Timbre	FP-III	M-IX	M-VI	F-IV	M-VII						
Trills	V-V										
Glissandi	V-VI	F-IX	V-V	V-III	M-VIII	M-XI					
Harmonic Tones	V-V	V-VI	M-IV								
High Notes w/Teeth	V-III	M-IV									
Tube Mute	V-III										
Pad Mute	M-V	M-VII	M-IV	M-XI							
Pad Mute w/Wa-Wa	M-V	M-VII	M-XI								

PLAN IV

Ideally, the clarinetist should combine the various elements of Plans II and III into a fourth, more utopian sequence for approaching the performing requirements of these four compositions by William O. Smith.

By initially investigating the movements of Five Pieces for Clarinet Alone, in the order recommended in Plan II, the more traditional performing techniques will be studied first. The change of timbre in the third movement of this composition, the last movement studied according to Plan II, easily progresses to the more avant-garde performing requirements.

Subsequently, it is suggested that the order of study for each separate category of sonority in Plan III be followed.

Finally, the clarinetist should return to Plan II for a proper investigation of the entire movements of Fancies, Variants and Mosaic.

This comprehensive plan provides an ideal method of studying and mastering the various performing techniques needed in these compositions.

RECOMMENDATIONS

Any current study or performance of avant-garde clarinet literature is restricted by the lack of adequate published resources. Without sufficient, readily available explanations of symbols, numerous charts of fingerings for monophonic and multiphonic sonorities, and discussions of the necessary physical manipulations, this innovative clarinet literature is not easily accessible to the clarinetist except through a personal investigation of dissertation proportions.

The following recommendations would alleviate this situation:

- 1) Clarinet compositions using non-traditional performing techniques must include, in a preface or within the score, appropriate explanations of symbols, fingering charts and suggestions regarding physical adjustments;
- 2) Scholarly investigations, similar to the Pellerite⁸⁹ and Howell⁹⁰ texts for flute, must be published to provide alternate solutions to these performing problems;
- 3) Various study materials, like The Twentieth Century Clarinetist⁹¹ and the forthcoming Clarinet-Methode⁹², must be written, published and widely distributed.

Although the availability of these resources will not guarantee an increased interest in avant-garde clarinet literature, it will insure a more accurate realization of the solo literature currently available.

89. James J. Pellerite, A Modern Guide to Fingerings for the Flute (Bloomington, Indiana: Zalo Publications, 1972).

90. Thomas Howell, The Avant-Garde Flute: A Handbook for Composers and Flutist (Los Angeles: University of California Press, 1974).

91. Sigel, The Twentieth Century Clarinetist.

92. Bruno Bartolozzi, Clarinet-Methode (Milan: Edizioni Suvini Zerboni, forthcoming).

APPENDIX

APPENDIX

SIMILAR COMPOSITIONS

- Antoniou, Theodore. Three Likes for Clarinet. Kassel, West Germany: Baerenreiter, 1974.
- Bartolozzi, Bruno. Collage. London: Oxford University Press, 1967.
- Beerman, Burton. Sensations. Bowling Green, Ohio: Bowling Green University, 1969.
- Bettinelli, Bruno. Studio da Concerto per Clarinetto in Si^b. Milan: G. Ricordi, 1971.
- Bucchi, Valentino. Concerto per Clarinetto Solo. Milan: G. Ricordi, 1969.
- De Sica, Manuel. Voice per Clarinetto in Si^b. Milan: G. Ricordi, 1972.
- Eaton, John. Concert Music for Solo Clarinet. Delaware Water Gap, Pennsylvania: Shawnee Press, 1961.
- Heininen, Paavo. Discantus II - Sonatina per Clarinetto Solo in tre Tempi, Op. 21. Helsinki: Edition Fazer, 1974.
- LaPorte, Andre. Reflections (inner-space music). London: J. & W. Chester, 1970.
- Lehmann, Hans Ulrich. Mosaic for Clarinet (in B-flat) Solo. Cologne: Edition Hans Gerig, 1964.
- Phillips, Peter. Fantasy for Clarinet. New York: Murbo Publishing Co. (Bourne), 1960.
- Stalvey, Dorrance. PLC-Extract. Los Angeles: 2145 Manning Avenue, 1968.
- Tisne, Antoine. Invocations pour Ellora. Paris: G. Billaudot, 1972.
- Verrall, John. Brief Elegy. New York: Composers Facsimile Edition, 1970.

Zonn, Paul. Revolutions for Clarinet Alone. New York:
Composers Facsimile Edition, 1969.

Zonn, Paul. Stray Puffs for Solo Clarinet. New York:
Composers Facsimile Edition, 1968.

BIBLIOGRAPHY

BIBLIOGRAPHY

- Bartolozzi, Bruno. Clarinet-Methode. Milan: Edizioni Suvini Zerboni, forthcoming.
- Bartolozzi, Bruno. New Sounds for Woodwinds. Translated and edited by Reginald Smith Brindle. London: Oxford University Press, 1967.
- Caldwell, John A. "Reviews of Music: Clarinet Solo." Music and Letters 46 (1965): 370.
- Culver, Charles A. Musical Acoustics. 4th ed. New York: McGraw-Hill Book Co., 1956.
- Fisher, Huot, "A Critical Evaluation of Selected Clarinet Solo Literature Published from January 1, 1950 to January 1, 1967." Ph.D. dissertation, University of Arizona, 1970.
- Gillespie, James E., Jr. Solos for Unaccompanied Clarinet: An Annotated Bibliography of Published Works. Detroit Studies in Bibliography, no. 28. Detroit: Information Coordinators, Inc., 1973.
- Heiss, John C. "Some Multiple-Sonorities for Flute, Oboe, Clarinet, and Bassoon." Perspectives of New Music, Fall-Winter 1968, pp. 136-142.
- Howell, Thomas. The Avant-Garde Flute: A Handbook for Composers and Flutists. Los Angeles: University of California Press, 1974.
- Kroll, Oskar. The Clarinet. Revised by Diethard Riehm. Translated by Hilda Morris. Translation edited by Anthony Baines. New York: Taplinger Publishing Co., 1968.
- Lewis, David. "Music Reviews: Transparence pour Clarinette et Metal" The Clarinet 2 (1974): 20.
- Longyear, Rey M. Nineteenth-Century Romanticism in Music Prentice-Hall History of Music Series, edited by Wiley Hitchcock. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969.

- Merriman, Lyle C. "Solos for Unaccompanied Woodwind Instruments: A Checklist of Published Works and Study of Representative Examples." Ph.D. dissertation, State University of Iowa, 1963.
- Pellerite, James J. A Modern Guide to Fingerings for the Flute. 2nd rev. ed. Bloomington, Indiana: Zalo Publications, 1972.
- Rehfeldt, Phil. "Multiphonics for Clarinet." The Clarinet 1 (1973): 9-15.
- "Reviews." Brass and Woodwind Quarterly 2 (1969): 66.
- Schwadron, Abraham A. "Contemporary Music for Clarinet." Instrumentalist, no. 11 (1965), p. 46.
- Sigel, Allen. The Twentieth Century Clarinetist. New York: Franco Columbo, Inc., 1966.
- Smith, William O. "Contemporary Clarinet Sonorities." Selmer Bandwagon, no. 67, pp. 12-14.
- Smith, William O. Fancies for Clarinet Alone: Multiple-Sound Studies. New York: MJQ Music, Inc., 1972.
- Smith, William O. Five Pieces for Clarinet Alone. London: Universal Edition, Ltd., 1963.
- Smith, William O. Mosaic for Clarinet and Piano. New York: MJQ Music, Inc., 1972.
- Smith, William O. Variants for Solo Clarinet. London: Universal Edition, Ltd., 1967.
- Smith, William O. William O. Smith: Four Chamber Works. Los Angeles: Contemporary Records, Inc., 1963.
- Verdehr, Elsa Ludewig. "Telephone Conversation with Dean William Turner." November 1974.

MICHIGAN STATE UNIVERSITY LIBRARIES



3 1293 03111 8205