The Creative Process of George Crumb's *Black Angels*

by

Joshua DeVries

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
(Music Theory)
in the University of Michigan
2023

Doctoral Committee:

Professor Patricia Hall, Chair
Associate Professor Stephen Berrey
Professor Charles Garrett
Professor Kevin Korsyn
Associate Professor Ramon Satyendra

Joshua DeVries

joshdev@umich.edu

ORCID iD: 0009-0007-9792-0880

Dedication

I dedicate this dissertation to my mother, who will forever be my first music teacher and so much more.

Acknowledgements

I want to extend my heartfelt gratitude to all the individuals who played crucial roles in the successful completion of my dissertation. First and foremost, my sincere appreciation to the members of my dissertation committee and dissertation proposal committee: Drs. Áine Heneghan, Ramon Satyendra, Kevin Korsyn, Charles Garrett, and Stephen Berrey. Their guidance and insights have been invaluable throughout this process.

I am deeply indebted to my dedicated chair, Patricia Hall, who has been a constant source of support since the beginning of my research. Her unwavering encouragement has been instrumental in shaping the trajectory of my research and my success throughout my degrees.

I will forever treasure the time I spent with George Crumb and am endlessly thankful to him and his wife Elizabeth for warm hospitality, graciously welcoming me into their home on numerous occasions. I owe a debt of gratitude to Steven Bruns for introducing me to George and providing continuous support along with invaluable materials from his private collection, to Mark Clague for his encouragement and guidance throughout my academic endeavors, and to Christopher Kendall for his insightful anecdotes about his time with Crumb.

I am deeply grateful to all the individuals who shared their personal experiences and insights into George Crumb and *Black Angels*, namely Norman Fischer, Andrew Jennings, Donald Wilson, Jeffrey Ziegler, Henry Root, and James Primrosch. Additionally, I am particularly appreciative of Norman Fischer and Donald Wilson for allowing me access to significant documents from their private collections.

Financial support played a significant role in the realization of this dissertation, and I am grateful for the funding received from: the EXCEL program at University of Michigan School of Music Theatre, and Dance; the Undergraduate Research Opportunity Program; and the Rackham Graduate School. My thanks also go out to my colleagues at various conferences who provided wonderful feedback on various versions of this material.

To my dear friends Jake Arthur, Anna Rose Nelson, and Kai West: your friendship, companionship, and encouragement mean the world to me. This would never have happened without you.

I owe a debt of gratitude to Doug Uehling and my brother Geoffrey Lambert for introducing me to, and providing invaluable guidance on, Vietnam War fiction, which laid the early groundwork for my research.

Lastly, I must acknowledge the unwavering support and love from my family—Hanna, my mother Jane, Courtney, Casey, and Geoffrey. Your belief in me kept me going.

Table of Contents

List of Figures

List of Appendices

Abstract

Since its premiere in 1970, George Crumb's *Black Angels* has remained immensely popular with performers, audiences, and the general public. Crumb believes it is his most performed work, yet there has never been a large-scale study devoted to exploring the quartet. This dissertation presents the history of the work from the commission to the premiere, raises questions of performance practice and the use of technology in live performance, covers analytical issues arising from the combination of formal structures in the work, and discusses the realization of the numerological symbolism in each movement. Throughout, the dissertation uses archival artifacts and first-person accounts, including newly-rediscovered recordings, interviews completed for this research, and sketches, correspondence, and other documents in the George Crumb Papers (Library of Congress), the Gilbert Ross Papers (Bentley Historical Library), and other archives.

This dissertation first surveys the documents in Crumb's archive and presents an analysis of his sketching methods. The first chapter illustrates the types of sketches for *Black Angels* and explains the layers hidden in the first complete draft of the work. Although Crumb taped together fourteen leaves to make a booklet out of this draft, it began as mostly-blank leaves; the layers reveal a spatially-organized form sketch previously hidden under the draft. The second and third chapters cover the history of the piece from the commission to the premiere. The second chapter uses Crumb's correspondence and his compositional log — a previously-unpublished personal record of his compositional work in 1969–1970 — to provide a timeline of the compositional

process. The third chapter begins with the delivery of the scores to the Stanley Quartet and covers their preparations for the premiere from May-October 1970. Using an oral history gathered for this research in conversation with archival documents and recordings, this chapter presents new findings on the technology used for the premiere and other early performances, from the expensive, custom-built "Crumb Boxes" used by the Stanley Quartet to brightly-colored Barcus Berry electric instruments and cheap contact microphones used by other ensembles. This history concludes with a discussion of the development of performance practice as it relates to the improvement of amplification technology.

The fourth and fifth chapters cover, respectively, the development of the form of the work and the changing realization of the numerological mottoes. Using the sketches and interviews with Crumb, the fourth chapter shows how the parable structure — the larger grouping of movements into "Departure," "Absence," and "Return" — grew out of the symmetrical organization of movements. These sketches also demonstrate the gradual emergence of movements four and ten as "buttress points," or key structural moments, in the symmetrical form and the moment Crumb changed them from a symmetrical pair to diametric oppositions ("Devil music" and "God music"). The fourth chapter closes by considering the form of and the temporality in *Black Angels* in the context of Paul Fussell's "paradigm war memoir" and its realization in Vietnam War memoirs.

The final chapter presents the final realization of each of Crumb's "magical numerological mottoes," which he allegedly used as a structural key within each movement, in conversation with the intended realization as seen in the sketches. This comparison demonstrates instances where the original application of the motto was incomplete, but still had a noticeable effect on the internal form of the movement.

Chapter 1 The Changing Function of a Crumb Sketch

> "…the first impression was that of entering a small art gallery. The oversized pages of George's latest piece were all tacked to the dining room walls…"[1]

1.1 Introduction

In this chapter, I survey the many formats of archival documents I reference in my dissertation. I also differentiate the types of sketches available in order to demonstrate how each functioned within Crumb's compositional process. The primary sources I use in this dissertation include sketches, drafts, correspondence, business documents, recordings, logbooks, interviews, and scrapbooks.

As this is the first large-scale study of Crumb's archival sources, much of my discussion will center on introducing the different types of archival and primary sources. Crumb's archive is relatively young, and as a result prior studies involving his sketches have been fascinating but isolated and narrow in scope.[2] In exploring the sketch material for *Black Angels* — and using sketches from Crumb's other works in the late 1960s and early 1970s to corroborate — I not only clarify the origins of the quartet but also reveal more general trends in Crumb's working methods that can be used in future studies. I also reference material in other archives, including letters in the Bentley Historical Library at the University of Michigan and digitized recordings in other archives, to contextualize and analyze Crumb's process and performances of the piece. The

[1] Richard Wernick, "George Crumb: Friend and Musical Colleague," in *George Crumb: Profile of a Composer*, ed. Don Gillespie (New York: C. F. Peters Corporation, 1986). (68)

[2] As of writing, Crumb's archive at the Library of Congress is only eleven years old. For prior studies, see, for instance, Christopher Wilkinson, "*Makrokosmos I* and *II*: A Case Study of George Crumb's Compositional Process," in *George Crumb: Profile of a Composer*, ed. Don Gillespie (New York: C. F. Peters Corporation, 1986).

resulting collection of documents, taken as a whole, presents a near-comprehensive set of archival and primary sources related to *Black Angels*.[3] In working to locate all of the sources I discuss, I hoped not only to create a collection for this project but to demonstrate the breadth of possibilities in this realm of study.

I begin by briefly summarizing the types of documents that I reference. The variety of source types I consider in my investigation is influenced by the breadth of topics covered; documents that are central to certain analyses may corroborate analytical questions raised in other chapters and vice versa. Using several leaves of Crumb's sketches as examples, I introduce terminology and classification methods to describe these documents. This includes the introduction of several new terms specific to Crumb's sketches. I conclude the chapter by identifying a unique step in Crumb's compositional process, decoding what information from that step remains in the sketches, and discussing possible analytical implications.

The primary sources often raise more questions than they answer, ranging from existential questions on other artifacts to complex analytical and performative issues. Throughout this dissertation, I raise many of these questions explicitly, answering them where currently possible, while hoping that they serve as the impetus for continuing work on *Black Angels*, primary source study on Crumb's music, and archival research in general. My study is supplemented by details that go beyond my project, with the intent of contributing to future Crumb scholarship and being of aid to future scholars entering Crumb's archive.

1.2 Types of Primary Sources

1.2.1 Sketches and Drafts

[3] The primary source bibliography I have compiled is, at the time of writing, the most comprehensive yet put together. It is, of course, entirely possible that new documents may emerge in the future.

George Crumb's sketches and drafts for *Black Angels* are housed at the Library of Congress (LOC) in the George Crumb Papers. As it currently stands, the bulk of the George Crumb Papers were donated by Crumb to the LOC in 2011 after extensive organizational work by theorist and Crumb scholar Steven Bruns.[4] Bruns aided Crumb in organizing the sketches and preparing the documents to be donated.[5]

The LOC's holdings with musical content for *Black Angels* contain, in generic categories, 37 pages of sketch material on 29 leaves, a complete draft in a homemade booklet made of sketch paper and masking tape, and the fair copy of the score (referred to by the Library of Congress as a "holograph manuscript score paste-up"). Most of the loose sheets are oblong, measuring 38.5x27.8cm, light green in color, and have 17 staves pre-printed on one side. These sketch pages were specifically made by Crumb in conjunction with George Rochberg in the 1960s; they ordered a large quantity of these sheets, split between the two of them. The design of these sheets, with staves only on the recto side, was intentional: Crumb would often draw his own staves on the verso side or would use it for freer sketching methods (such as for his form sketches).[6] Crumb primarily used one side for the majority of the sheets, either the staved recto or the blank verso, for reasons discussed later in this chapter.

The homemade booklet shown in Figure 1.1 is the first complete draft of *Black Angels*, which I will subsequently refer to as Draft A. Draft A is similar to a *particell* (short score): a draft of the work written out, often heavily annotated, and consulted while writing the fair copy. Crumb's interaction with this document throughout the compositional process is the subject of

[4] The finding aid for the George Crumb Papers was updated in 2021 to include a copy of *Kronos-Kryptos* on display in the library in ML30.F5 no. 5 <case>.
[5] There were attempts to get Crumb to place his documents at other archives, including an offer from the Paul Sacher Stiftung in 2000. Dr. Felix Meyer sent an introductory letter to Crumb mentioning a subsequent phone call and possible visit to Basel during Crumb's upcoming trip to the American Academy in Berlin.
[6] The recto side of a sheet is the front, the side of the sheet that would be shown as the right-hand page of a bound book. The verso side is the back and would be displayed as a left page.

the latter half of this chapter, but I will discuss its physical characteristics here. Draft A is made of the same green sheets as the majority of the sketches, but they were taped together to form a small book made up of fourteen sheets and taped in such a manner so that the verso side (the blank side) of each sketch sheet is facing outwards. The exception is the title page, where Crumb wrote the title in black ink (doubling over the letters) in addition to the group title "[IMAGES I.]," the year, and his signature. In Figure 1.2 I show the construction of this booklet.

Figure 1.1: The cover and binding of Draft A of *Black Angels*

Because the readable sides of Draft A, save the front cover, are constructed entirely from the verso side of the sketch sheets, I will use the pagination provided by Crumb in the appropriate upper corners of each page (sheet) of the booklet. For instance, "Draft A page 6"

refers to the verso side of the sheet marked with an asterisk in Fig. 1.[7] I will refer to the front and back covers as such when necessary.

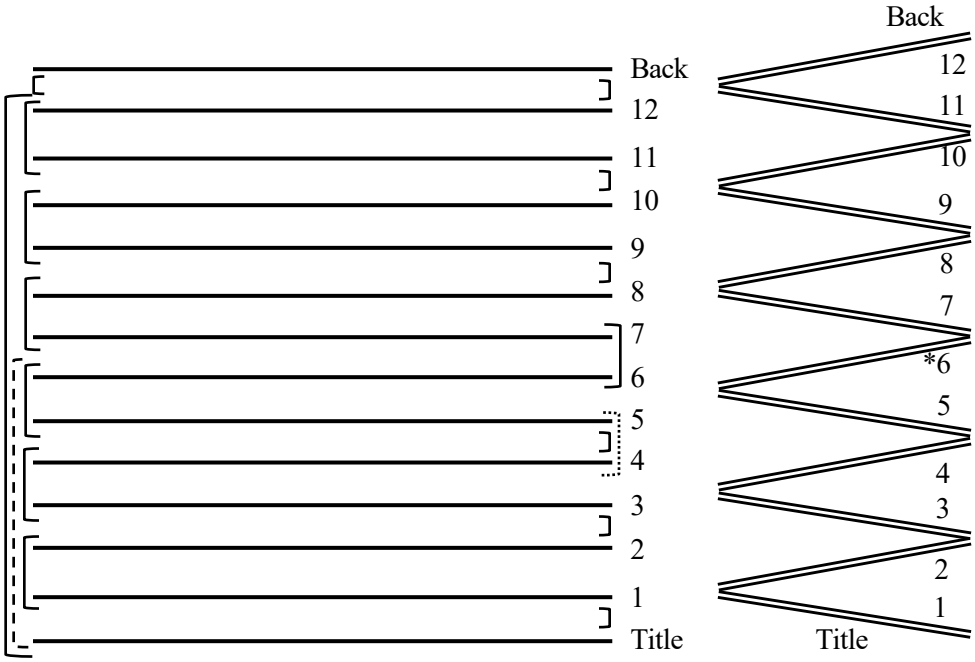


Figure 1.2: The construction and resultant pagination of Draft A. Brackets indicate masking tape binding the booklet together. The dashed bracket is a piece of tape whose front edge placement is unclear. The dotted bracket is a single small piece of tape on the corner of pages 4-5.

1.2.2 Correspondence

The extant correspondence for *Black Angels* comes from two different archives: the LOC and the Bentley Historical Library (BHL) at the University of Michigan. The LOC holds letters Crumb received and copies of Crumb's outgoing letters he retained for his own records. The BHL contains letters from Crumb sent to various University of Michigan (UM) faculty and administrators. Most of these letters were sent to Gilbert Ross, the first violinist and unofficial administrative director of the Stanley Quartet, but the collection also includes letters to Jerome Jelinek, the cellist of the Stanley Quartet, and Allen P. Britton, acting dean of UM School of

[7] The construction of this booklet - with all of the verso sides facing out - renders verso/recto terminology confusing at best.

Music.[8] Crumb's letters were typically typed on University of Pennsylvania letterhead; longer letters filled several sheets of the letterhead.[9]

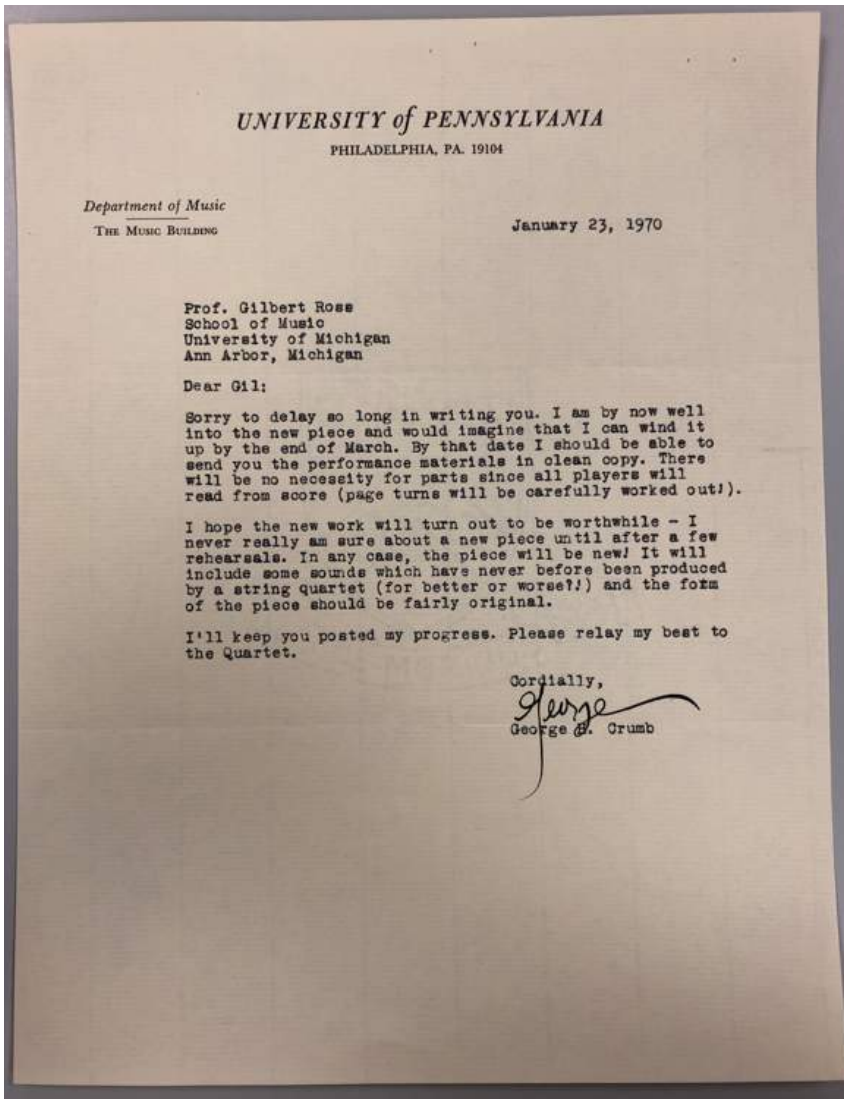
Many composers who have been the subject of sketch study wrote regularly about their work, process, and discoveries; these letters act as a point of reference for the analyst deciphering sketches. While reviewing Crumb's correspondence in the LOC for analytical clues, it became clear that he did not write about his work. For *Black Angels* specifically, there is very little of use for the specific dating of the sketches. Indeed, there is very little that refers to the musical content of the piece at all! Crumb's letters from this period are typically brief and disclose little about his work other than when he anticipated completing *Black Angels*. The only hint of musical description came in a letter reproduced in full below in Figure 1.3.

> I hope the new work will turn out to be worthwhile - I never really am sure about a new piece until after a few rehearsals. In any case, the piece will be new! It will include some sounds which have never before been produced by a string quartet (for better or worse?!) and the form of the piece should be fairly original.[10]

We cannot, of course, know for sure why Crumb didn't talk about his process in letters. It could be reticence to discuss his music before it was completed, reticence to discuss his music in general, or a slew of other possibilities.[11] Regardless, although Crumb's letters before the delivery of the score are not particularly useful in dating or organizing sketches, his letters after the piece was completed reveal a wealth of information about early performance practice for the quartet and the premiere.

---

[8] The University of Michigan School of Music later joined other schools to create the current School of Music, Theatre, and Dance.
[9] Crumb kept this practice of using University of Pennsylvania letterhead after reaching emeritus status; all of my letters received from him between 2016-2022 were on this same paper.
[10] George Crumb to Gilbert Ross, 23 January 1970, Box 1, Gilbert Ross Papers, Bentley Historical Library, University of Michigan.
[11] Anecdotally, I was warned by many who knew Crumb that he wouldn't want to discuss his own music in interviews.



UNIVERSITY of PENNSYLVANIA
PHILADELPHIA, PA. 19104

Department of Music
THE MUSIC BUILDING

January 23, 1970

Prof. Gilbert Ross
School of Music
University of Michigan
Ann Arbor, Michigan

Dear Gil:

Sorry to delay so long in writing you. I am by now well into the new piece and would imagine that I can wind it up by the end of March. By that date I should be able to send you the performance materials in clean copy. There will be no necessity for parts since all players will read from score (page turns will be carefully worked out!).

I hope the new work will turn out to be worthwhile - I never really am sure about a new piece until after a few rehearsals. In any case, the piece will be new! It will include some sounds which have never before been produced by a string quartet (for better or worse?!) and the form of the piece should be fairly original.

I'll keep you posted my progress. Please relay my best to the Quartet.

Cordially,
George
George H. Crumb

Figure 1.3 Letter from George Crumb to Gilbert Ross on University of Pennsylvania letterhead dated January 23, 1970[12]

In addition to letters from Crumb, the BHL also retains intra-School of Music and intra-quartet communications and administrative documents. These documents date from the founding of the Stanley Quartet in 1949 to the fall of 1970, shortly after the retirement of Gilbert Ross. These letters clarify the decision-making process for the Stanley Quartet's commissioning program, the reason behind personnel changes in the ensemble immediately before the premiere of *Black Angels*, and other matters related to the piece. I use these letters, along with letters from

[12] Crumb to Ross, 23 January 1970.

Crumb from May-October 1970, in detail in Chapter 2: From Commission to Completion, and Chapter 3: The Stanley Quartet and the Premiere of *Black Angels*.

1.2.3 Crumb's Compositional Log

In the 1960s and early 1970s, Crumb worked almost daily whenever he had a commission. He kept very careful track of his work, often totaling up the number of hours he worked on a certain day, clocking in and out of his studio at certain times. I was aware that Crumb had at times tracked his work in this manner, and with this degree of specificity, due to the existence of a compositional work log in the back of Sketchbook A, which includes sketches for both books of *Makrokosmos* and other works.[13] While the specifics of that log are not important to this research, it is reproduced in Figure 1.4 as an example of the format of these composition logs.

Crumb's archive at the LOC has no such personal record of work on *Black Angels*. Knowing that Crumb did not retain documents with the intention of donating them, I assumed that, if any such log did exist, it was thrown out or lost long ago. However, when discussing this with Steven Bruns, Crumb's archivist, he recalled seeing a small ledger book bound in black leather that contained schedules such as these. Bruns located scans he made of this ledger book in the 1990s; as a whole, the book contains Crumb's work schedules for much of the 1960s and 1970s. The ledger book was clearly intended for Crumb's personal use; reportedly, many of the pages also include financial and mortgage calculations.[14] It is uncertain whether the original volume still exists. I refer to the volume in its entirety as the *ledger book* and the schedules written by Crumb as the *composition log*.

[13] LOC George Crumb, "Sketchbook A," und., Box 9, George Crumb Papers, Library of Congress.
[14] Some financial calculations of a much lower stake — the cost of violin bows and other small purchases — are still visible on some of the *Black Angels* sketches, as well.

Crumb's work logs for 1969–1970 span only 7 pages (110–116). These 7 pages are reproduced with transcriptions in Chapter 3; one page is shown and transcribed below in Figure 1.5. The portion of the composition log on page 115 of the ledger book covers much of the final period of work on *Black Angels*, from January 9th, 1970 through February 5th, 1970, and demonstrates the degree of specificity that Crumb maintained in tracking his production. Although the organization and chronology of the sketches cannot be directly gleaned from the information on page 115 of the ledger, Crumb did leave many hints throughout the entire volume. In Figure 1.5 these include "complete numerology idea!" on January 9th, "(start copying!)" on January 17th and specific movements labeled throughout all of February. Using this composition log and the musical material in the sketches, I made sense of the chronology of the *Black Angels* sketches in much greater detail than previously possible; it is theoretically possible to date certain sketches not only to the day they were written, but to the time of day. Although I reference the composition log throughout the dissertation, I spell out the chronology of many sketches, specifically in Chapter 4: Form and Process and Chapter 5: The Realization and Evolution of Numerology.

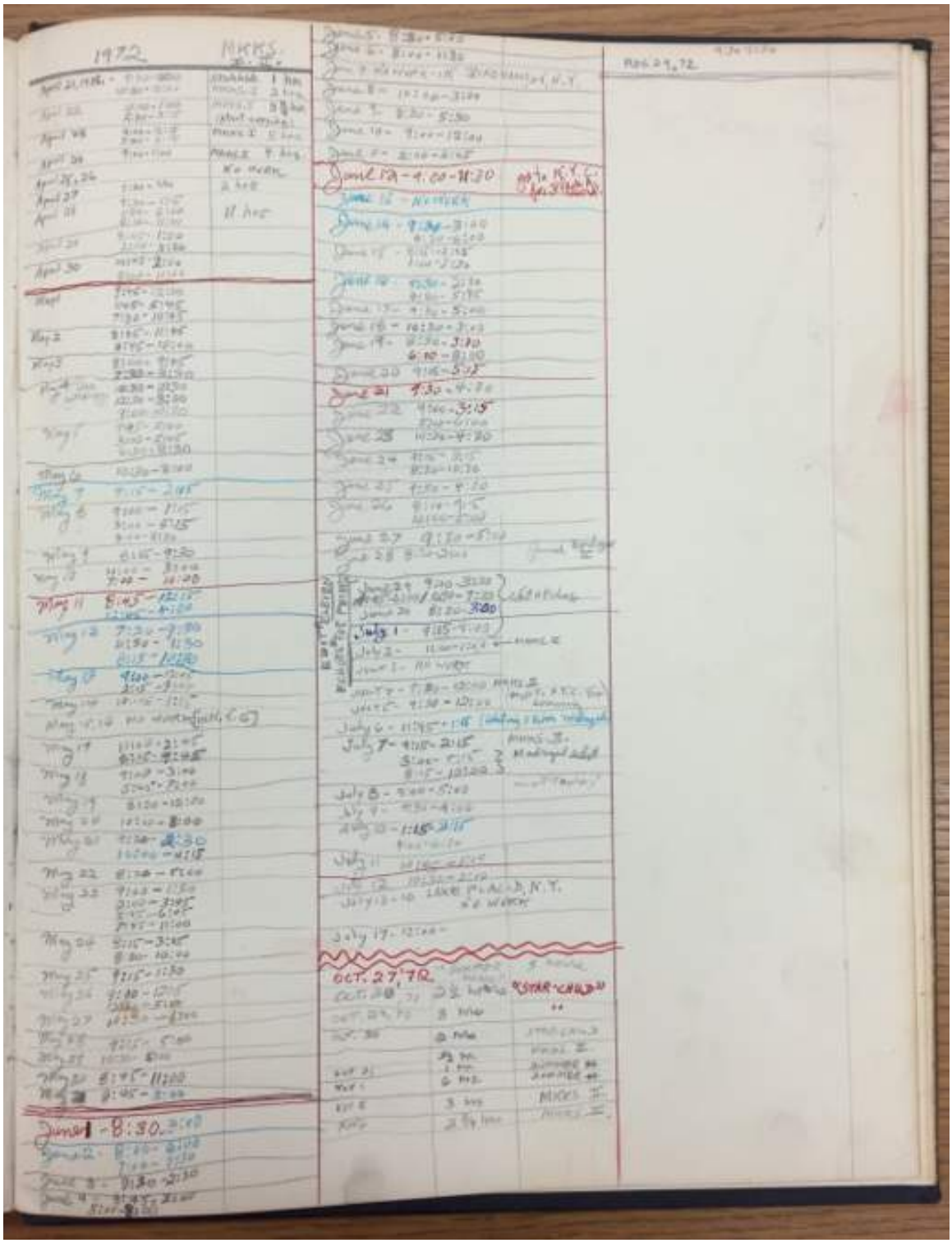
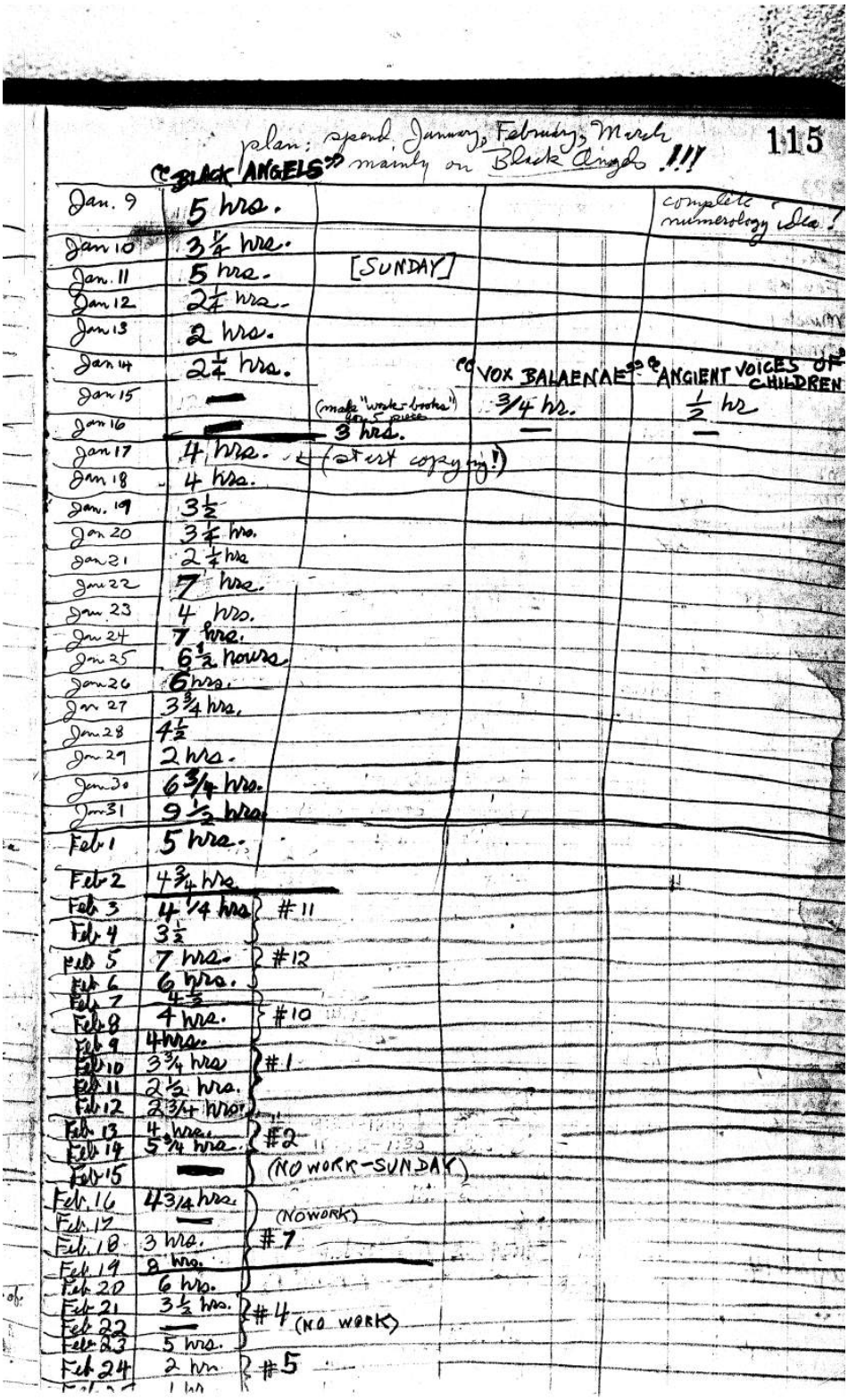


Figure 1.4 Compositional work log at the back of Sketchbook A



plan: spend January, February, March mainly on Black Angels !!!

115

	"BLACK ANGELS"		"VOX BALAENAE"	"ANCIENT VOICES OF CHILDREN"
Jan. 9	5 hrs.			complete numerology idea ?
Jan 10	3¼ hrs.			
Jan. 11	5 hrs.	[SUNDAY]		
Jan 12	2¼ hrs.			
Jan 13	2 hrs.			
Jan 14	2¼ hrs.			
Jan 15	—	(make "work books" for 5 pieces)	3/4 hr.	½ hr
Jan 16	—	3 hrs.	—	—
Jan 17	4 hrs.	(start copying!)		
Jan 18	4 hrs.			
Jan. 19	3½			
Jan 20	3¼ hrs.			
Jan 21	2¼ hrs			
Jan 22	7 hrs.			
Jan 23	4 hrs.			
Jan 24	7 hrs.			
Jan 25	6½ hours			
Jan 26	6 hrs.			
Jan 27	3¾ hrs.			
Jan 28	4½			
Jan 29	2 hrs.			
Jan 30	6¾ hrs.			
Jan 31	9½ hrs.			
Feb 1	5 hrs.			
Feb 2	4¾ hrs.			
Feb 3	4 1/4 hrs	#11		
Feb 4	3½			
Feb 5	7 hrs.	#12		
Feb 6	6 hrs.			
Feb 7	4½			
Feb 8	4 hrs.	#10		
Feb 9	4 hrs.			
Feb 10	3¾ hrs	#1		
Feb 11	2½ hrs.			
Feb 12	2¾ hrs.			
Feb 13	4 hrs.	#2		
Feb 14	5¼ hrs.			
Feb 15	—	(NO WORK-SUNDAY)		
Feb. 16	4 3/4 hrs.			
Feb 17	—	(NO WORK)		
Feb. 18	3 hrs.	#7		
Feb 19	8 hrs.			
Feb 20	6 hrs.			
Feb 21	3½ hrs.	#4		
Feb 22	—	(NO WORK)		
Feb 23	5 hrs.			
Feb 24	2 hrs	#5		

plan: spend January, February, March
mainly on Black Angels !!!

"BLACK ANGELS"

Jan. 9	5 hrs.			complete numerology idea!
Jan 10	3 ¼ hrs.			
Jan 11	5 hrs.			
Jan 12	2 ¼ hrs.			
Jan 12	2 hrs.			
Jan 14	2 ¼ hrs.		**"VOX BALAENAE"**	**"~~ANCIENT VOICES OF CHILDREN~~"**
Jan 15	—	(make "work-books" for 5 pieces)	¾ hr.	½ hr
Jan 16	—	3 hrs.	—	—
Jan 17	4 hrs.	← (start copying!)		
Jan 18	4 hrs.			
Jan. 19	3 ½			
Jan 20	3 ¼ hrs.			
Jan 21	2 ¼ hrs.			
Jan 22	7 hours	??:?? -		
Jan 23	4 hrs.			
Jan 24	7 hrs.			
Jan 25	6 ½ hours			
Jan 26	6 hrs.			
Jan 27	3 ¾ hrs.			
Jan 28	4 ½			
Jan 29	2 hrs.			
Jan 30	6 ¾ hrs.	*??? 2 ???*		
Jan 31	9 ½ hrs.	1?:?? - 12:?5		
Feb 1	5 hrs.	*???*		
Feb 2	4 ¾ hrs	*???*		
Feb 3	4 ¼ hrs	#11		
Feb 4	3 ½	*???* 0		
Feb 5	7 hrs.	#12		
Feb 6	6 hrs.	1? *???*		
Feb 7	4 ½	12:??		
Feb 8	4 hrs.	#10 *???*		
Feb 9	4 hrs.	10:?? -		
Feb 10	3 ¾ hrs	#1 *???*		
Feb 11	2 ½ hrs.			
Feb 12	2 ¾ hrs.			
Feb 13	4 hrs.	# ??:3? - 12:??	*???* —	
Feb 14	5 ¾ hrs	#2 11:?5 - 1:30	3:?? - ?	
Feb 15	—	(NO WORK - SUNDAY)		
Feb 16	4 ¾ hrs.	?0 1:1? - ?:??		
Feb 17	—	(NO WORK)		
Feb 18	3 hrs.	#7		
Feb 19	8 hrs.	9:?0 - *???*	*???*	
Feb 20	6 hrs.	*???*		
Feb 21	3 ½ hrs.	#4		3:??
Feb 22	—	(NO WORK)		
Feb 23	5 hrs.		11:?? 1:??	
Feb 24	2 hrs.	#5 *???*		
Feb 25	1 hr	*???*		

Figure 1.5 Page 115 of Crumb's ledger book, containing his compositional log from 1/91970 - 2/5/1970, with a transcription (previous two pages)

1.2.4 Crumb's Scrapbooks

As I write this dissertation, the LOC has seven scrapbooks compiled by Crumb that include photos, newspaper clippings, academic articles, concert programs, concert reviews, recording reviews, juvenilia, interviews, and posters.[15] The majority of the material in the custom-bound volumes is organized chronologically and dates from 1963–2003, but there are outliers in both the organization and the time span. The LOC describes these volumes as "assembled with the same meticulous care as the composer's scores and include hundreds of performance reviews from both American and international newspapers."[16] Similar to Crumb's scores, these volumes are also impressively large: the cover of small scrapbooks measure 18½in. x 18in. with pages that are 18in. x 17in.; the cover of the larger scrapbooks measures 25⅛in. x 20½in. with pages that are 24in x 19½in. The documents included in the scrapbook comprise a near-comprehensive bibliography of newspaper sources and serve as the foundation of my literature review of non-academic sources. The concert and recording reviews from the scrapbooks and other sources in particular, are important to future research on performance and performance practice.

1.2.5 Recordings

The future of this project will focus on the performance history of *Black Angels* and how this interacted with the development of amplification technology and sentiment around the Vietnam War. I plan to examine several recordings, particularly those released in the 1970s, 80s, and 90s such as the New York String Quartet, Concord String Quartet, Gaudeamus String

[15] As of 2016, when I first visited Crumb at his home, there were at least three more volumes of scrapbooks completed but not yet transferred to the LOC.
[16] Christopher Hartten, George Crumb Papers: Guides to Special Collections in the Music Division of the Library of Congress, 12 (Washington, D.C. 2012, rev. 2021).

Quartet, and Kronos Quartet, creating a thorough performance and recording history. In addition to commercially available recordings, several notable, previously lost archival recordings have come to light as a result of my work. I discuss those in Chapter 3: The Stanley Quartet and the Premiere of *Black Angels*.

1.2.6 Interviews

Studying the history of a piece only five decades old presents the wonderful but, at times, fleeting opportunity to talk to those present at important events in the early days of that history. Early on in my research, I learned that Jerome Jelinek, the final surviving member of the Stanley Quartet which premiered *Black Angels*, passed only a few months before I learned his name. From then I worked to interview as many people who interacted with the piece in the 1970s as possible: Crumb himself, performers who recorded the work and their colleagues, and even audience members and critics who attended early performances.[17] As a result, I have created a partial oral history—a repository of these voices and stories—at a critical time in the work's history. The results of this effort are included as appendices to this dissertation so they may be used and re-interpreted freely.

1.3 An Overview of Sketch Types

To facilitate my analysis of Crumb's compositional process, I will first discuss how I classify the extant sketches and how Crumb interacted with these documents. There are several different models I use for classifying sketches; these terms are tailored to describe the physical format of the sketch, as well as the function the document assumes in Crumb's compositional

[17] It is worth noting that, while I have attempted to contact anyone I think will discuss *Black Angels* with me, several people responded saying they have no memory of it. Additionally, the COVID-19 pandemic beginning in 2020 made completing such interviews demonstrably harder; I had planned several more trips to visit Crumb that the pandemic made impossible before he passed away.

process, while also referencing standard definitions in the field of sketch study. Specifically, I base the language I use on past models by Hyde, Hall, Benary, and Somfai, among others.[18] Although these pre-existing classifications of sketches account for many of the autograph sources, idiosyncratic aspects of Crumb's process left records in need of further clarification or new classifications altogether. To fill these gaps, I reconstruct and introduce sketch study terminology to be suitable to the particulars of studying Crumb's process. I do not go through every sketch or sketch type in great detail, but provide an overview that clarifies to the reader why I classify sketches in this manner.

Before beginning, it is worth noting that, as Friedemann Sallis succinctly stated, "The terminology of sketch studies is notoriously vague."[19] I use terms common in the field of sketch study to relate Crumb's processes to other analyses as well as to give points of reference in comparing Crumb's sketches to each other. While it is easy to assume that terms such as "sketch" and "draft" imply varying degrees of completion, these terms do not imply any specific relation to the final work: a draft may be entirely discarded; a sketch may be kept unaltered. The terms are subservient descriptors of the sketch and are less important than the content.

1.3.1 Sketch #7

Consider the sketch shown in Figure 1.6. This leaf shows sketches for three movements (although four movements are labeled), the placement of which is shown in the transcription in Figure 1.7. The top half of the page shows various sketches for movement 7. In the lower half, on the left side, Crumb has drawn a line to demarcate sketches for movement 1. To the right Crumb marked off a small portion of the page with the title "#4 cadenza Devil Music"; that

[18] Hyde, "Format and Function," Hall, "Lulu" and "Wozzeck," Benary, "Skizze - Entwurf - Fragment," Somfai, "Between the Desk and the Piano."
[19] Friedemann Sallis, *Music Sketches*, Cambridge Introductions to Music, (Cambridge: Cambridge University Press, 2015), 6.

section is left blank. The bottom of the page shows material labeled “Pavana II: “Death and the Maiden”” which ended up being an alternate version of movement 6.[20] This document demonstrates several of the peculiarities of studying Crumb’s sketches. Material for three different movements is on the same leaf; every movement is at a different stage of the compositional process and demonstrates a different type of sketching.

[20] This alternate version is included as the appendix to *Black Angels*; it is rarely performed. This is likely due to the logistical difficulty of copying over the appendix into the correct placement into the score order (in a piece and score that already has many logistical considerations) as well as the technical difficulty of executing this gradual flattening while the performers’ right and left hands have switched positions. For more information, see Chapter 9: Practical Issues.

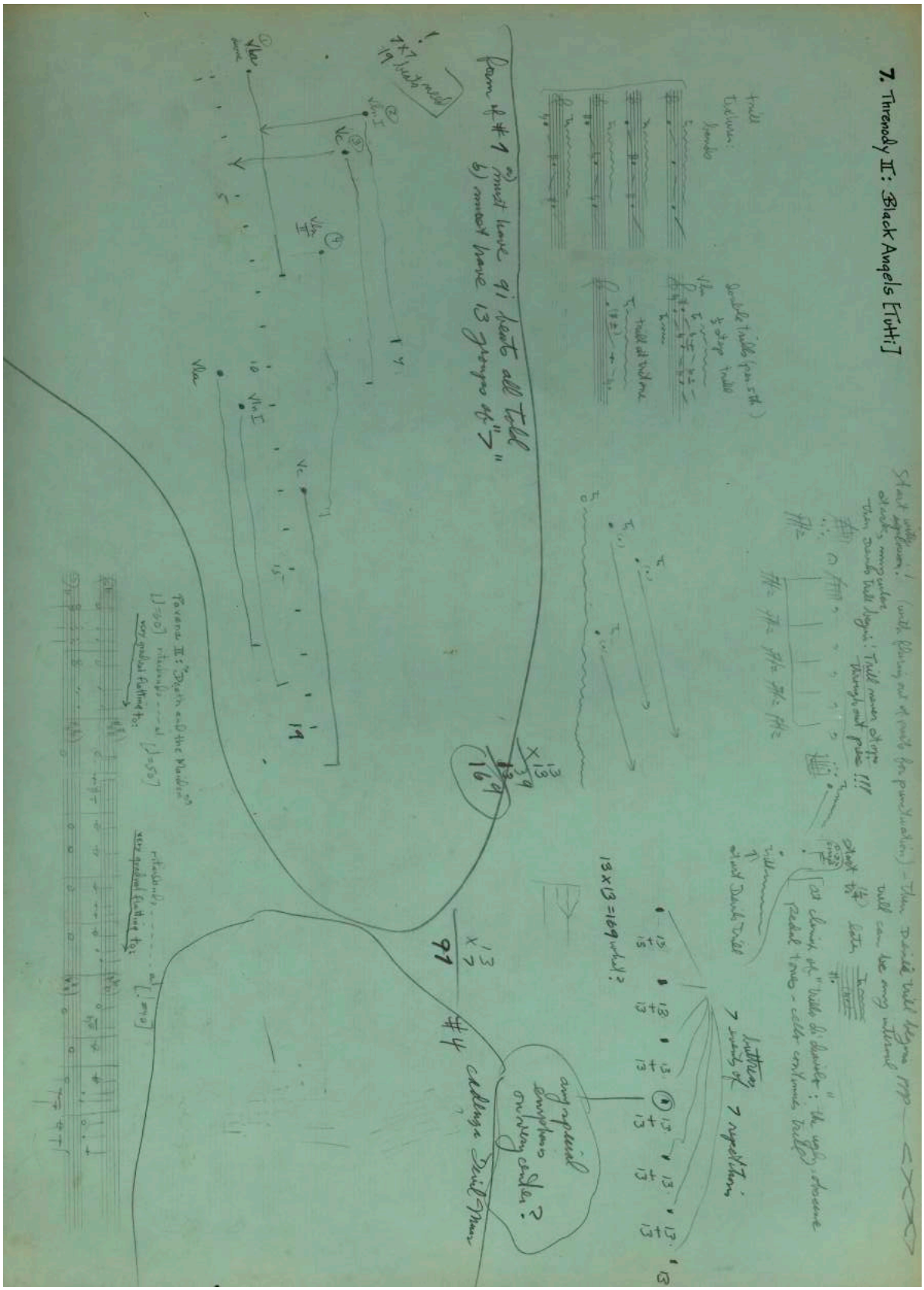


Figure 1.6 Leaf showing sketches for movements 1, 4, 6, and 7

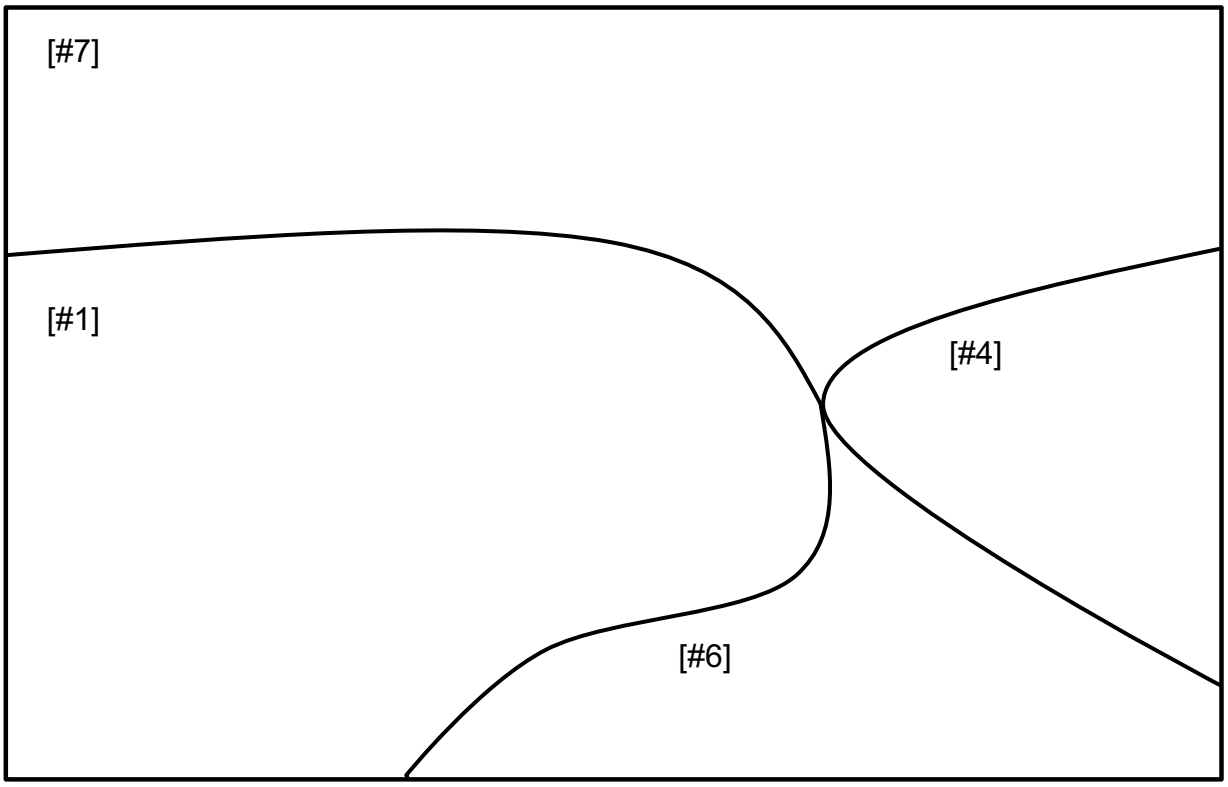


Figure 1.7 A sketch-map for the sketch shown in Figure 1.6

1.3.2 Continuity Drafts

The material for movement 6 at the bottom of the sketch in Figure 1.6 is relatively complete. Written on two staves, it includes all of the rhythmic material for the trio of instruments playing in this movement, complete outer voices, and a partial inner voice. This is a *continuity draft.* The label "draft" is unrelated to the material's relationship to the final version—continuity drafts can be discarded—but is based on their function in the creative process. Barry Cooper described Beethoven's continuity drafts as "by definition a fairly long sketch and tends to represent a relatively late stage of composition…drafts enable Beethoven to judge the proportions of the different parts of a movement or section and the sense of continuity from one part to the next. […] A continuity draft could form the basis from which the autograph score was

made."[21] Possible functions of the continuity draft include but are not limited to: (1) comparing the scale of individual parts to the whole; (2) considering the connection or flow between different sections of music; and/or (3) serving as a reference when copying the autograph score.

Although the term continuity draft is not new, I mention the definition here because visually, Crumb's continuity drafts can take many forms. They can appear as notational drafts, a staff layout with annotations, a more typical draft with notes, rhythms, etc., or a more skeleton notation. Some of these forms might appear "sketchy" in their material but fulfill one or more of the functions outlined above in Crumb's process.

1.3.3 Concept Sketches

Compare the continuity draft of movement 6 with the sketch for movement 7 at the top of the leaf. This is a *concept sketch* for the movement. Defined by Alan Tyson as "the germ of an idea for a number: nothing detailed, only a suggestion,"[22] the term concept sketch was further refined by Patricia Hall in her later study of Berg's *Lulu*. Concept sketches are:

> [...] fragmentary and highly preliminary, often showing Berg's initial thoughts about some feature of a passage or extended section of the opera. Their appearance can best be described as an almost illegible "stream of consciousness," as if Berg were freely experimenting with ideas before beginning the arduous process of realization and refinement. Because concept sketches are characterized by their stage of composition rather than their subject, they may feature any musical parameter, and thus they may intersect or overlap with the preceding [...] categories.[23]

---

[21] Barry Cooper, *Beethoven and the creative process*, vol. Oxford [England]: New York (Oxford [England]: New York: Clarendon Press ; Oxford University Press, 1990, 1990), 105. In a footnote, Cooper says the term was "coined by Joshua Rifkin and used by Lewis Lockwood," mentioning specifically Lewis Lockwood, "On Beethoven's Sketches and Autographs: Some Problems of Definition and Interpretation," *Acta Musicologica* 42, no. 1/2 (1970): 42, https://doi.org/10.2307/932267, http://www.jstor.org/stable/932267..

[22] Alan Tyson, "The 1803 Version of Beethoven's *Christus am Oelberge*," *Musical Quarterly* lvi (1970): 570-71.

[23] Patricia Hall, *A View of Berg's Lulu Through the Autograph Sketches* (Berkeley: University of California Press, 1996), 21-24.

The prioritization of the function of the concept sketch and the timing of Crumb's use of this kind of sketch within the compositional process make this classification particularly useful for works that require extra- or pre-musical procedures. Many of Crumb's concept sketches deal with the musical application of poetic phrases, often from Lorca, deriving timbral effects, extended techniques, and general musical color from these possible movement titles. But concept sketches do not require any relation to their poetic inspiration; in this sketch, Crumb experimented with the idea of the "Devil's Trill" which would become a key feature of the movement. This "stream-of-consciousness" features aspects of form, notation, and application of the devil's trill principle. Some aspects ended up in the final version, while others were discarded: (1) "start with explosion! (with flaring out of parts for punctuation"; (2) "Trill never stops through piece!!!"; (3) "trill can be any interval" (with notation indicating a quarter tone trill later turns into a tritone trill); (4) "at climax of "trillo di diavolo": the ugly, obscene pedal tones - cello continues trill"; etc. In Crumb's sketches, concept sketches are often generative; free creative thinking resulted in timbral, formal, or other musical ideas that become the raison d'être of a short movement. They commonly comprise written text—often lists—with annotations in musical notation or shorthand. This concept sketch has an annotation in a musical shorthand Crumb commonly employed (with no staves or noteheads), showing the rhythm, dynamic effect, and general contour of the opening of the 7th movement.

There are four other sketches for movement 7 on this page. At the left of the page, there is a three-part chart of textures that are possible with trills (bends, double trills, and tritone trills). While writing *Black Angels*, Crumb often made lists or charts of possible extended techniques or timbral effects such as these, much like a serialist may have written out row charts as a point of reference. I will discuss these in more detail in Chapter 5: The Evolution of Numerology. To the

right of that chart is another sketch in shorthand, showing a possible counterpoint between and contour of each instrument in the quartet.

1.3.4 Numerological and Form Sketches

Two sketches in the top half of this leaf remain. Most prominently, on the right side, is a form sketch. Crumb labels this sketch with "buttress" and "7 events of 7 repetitions." The remainder of the sketch consists of 7 dots, connected to a single point via lines, with "13+13" written between each pair. The sketch is annotated; the fourth dot is circled with a line connecting it to the text "any special emphasis on very center?" This sketch is referring to a large span of the work, specifically the entire seventh movement. The movement was organized around seven buttress points of repeated events, and groups of 13 notes spread out between those events. There is more indicated here than formal organization; this is also what I term a *numerological sketch*. In numerological sketches, Crumb identifies what he later refers to as "magical" numerological mottoes and works out their musical realization. Crumb applied these mottoes to an extreme variety of aspects of the piece — "phrase-length, groupings of single tones, durations, patterns of repetition, etc."[24] — and the numerological mottoes are often a key organizational principle. This widespread application results in numerological sketches often overlapping with other sketch classifications, as in the Figure 1.6. On the right edge of the sketches for the seventh movement, Crumb worked out both the application of the numerological motto "7x7 and 13x13" and the form of the movement. It is worth noting here that I do not consider mathematical calculations to be numerological sketches on their own. These calculations often appear alongside numerological sketches, as in Figure 1.6, and can be

[24] Don Gillespie, ed., *George Crumb: Profile of a Composer* (New York: C. F. Peters Corporation, 1986), 107.

informative as to what Crumb was working out, but numerological sketches typically demonstrate some level of formal or musical application.

1.3.5 Notational Sketches

Near this numerological sketch, underneath "13x13=169 what?" we see a small diagram transcribed in Figure 1.8. Here, Crumb experimented with a possible layout of staves on the page, showing a convergence of the upper three voices while the bottom voice stayed separate. This I term a *notational sketch*. Notational sketches are defined by the prioritization of strictly notational elements to the detriment of other musical ideas. The most immediately recognizable notational sketches include staff organization and type. Throughout *Black Angels*, like many of his other pieces, Crumb changes the layout and format of the quartet's staves. Throughout the piece, individual staves often change from five lines to four or one. Staves often disappear and then reappear later, or one stave turns into two, both with information necessary for the technical execution of the passage. Finally, the staves often move around the page diagonally, converging when members of the quartet are in unison and diverging afterward. Notational sketches are highly linked to the musical content and form of the piece; Crumb planned page layout with great care and detail, often far in advance. Page layout and staff organization were not determinants of formal organization, but often represent, in clear detail, Crumb's ideas as he worked towards a definitive realization of the form.

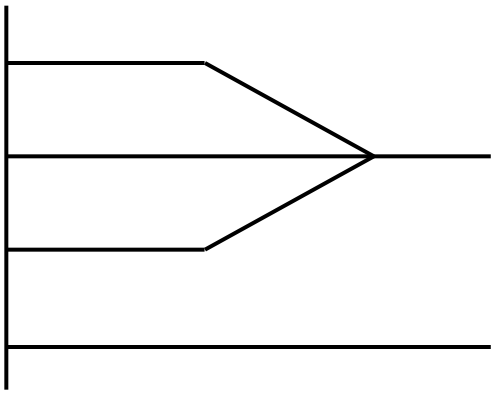


Figure 1.8 Transcription of notational sketch for movement 7

Numerological and notational sketches, because of their high level of integration with Crumb's compositional process, are often subsumed by or are a part of a different sketch. (The numerological sketch in Fig. 1.6 can also be referred to as a form sketch.) They can be a part of any type of sketch and, unlike concept sketches, are not defined by their place in the compositional timeline. Thus, they can also be a prominent part of drafts, as in the latter draft of movement 7 shown in Figure 1.9. This draft shows a clear understanding of the internal form of the movement, with what Crumb refers to as "buttress points" clearly labeled with downward pointing arrows. Although there appears to be minimal typical musical information in this draft (i.e. notes, rhythms, dynamics), the stave organization visually represents the counterpoint, entrances, and form of the movement; these aspects were already determined, and the specific pitches followed.

While the previous list is not comprehensive of all the types of sketches we encounter in Crumb's archive, it is indicative of the different mnemonic sketching methods Crumb employed. We will turn now to the largest document in the *Black Angels* collection, which I refer to as Draft A.

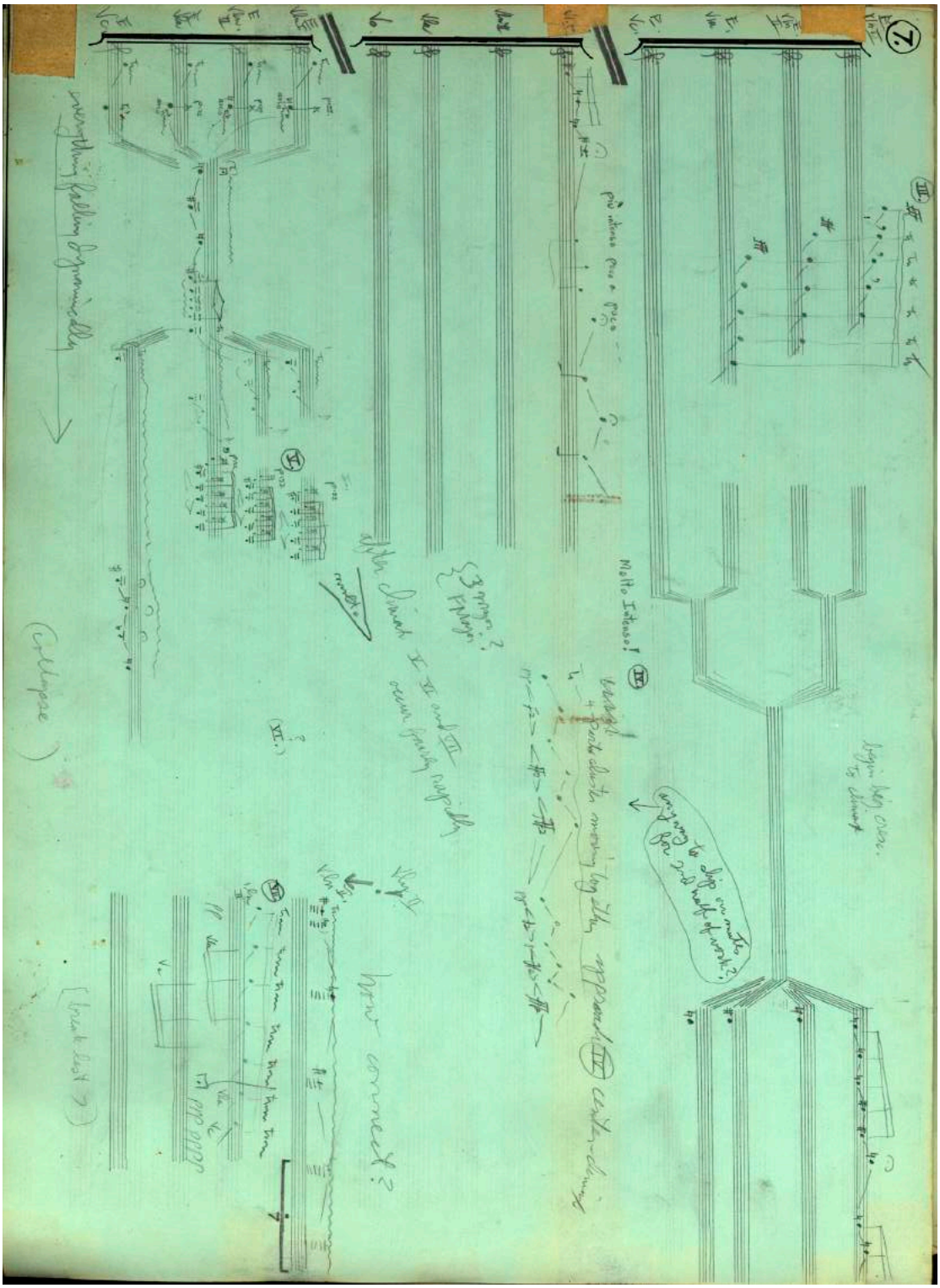


Figure 1.9 A draft of the second half for Movement 7: “Threnody II: BLACK ANGELS!”

1.4 Identifying Layers in Draft A

Draft A, as discussed previously, is a homemade booklet made of fourteen leaves, arranged so that the blank side (verso) of each leaf is visible. To understand the development of Draft A, I will begin by examining three sketch pages that are not in the taped booklet but show similarities to those that are. One such page, showing the numbers and titles of movements 5 and 6, as well as a draft of the "Pavana Lachrymae," is shown below in Figure 1.10. This and the other two documents I examine later are not part of Draft A but were intended to be: Crumb discarded and replaced these three leaves before constructing Draft A by taping the leaves together. These documents are remnants of an earlier stage of composition and reveal layers otherwise hidden in Draft A by subsequent steps in Crumb's compositional process.

The page shown in Figure 1.10, Pavana Lachrymae, has the titles of movements 5 and 6, as well as a larger Roman numeral "II" at the top, indicating the start of the second, then-untitled section of *Black Angels* (later titled "Absence"). It also includes an incomplete draft for the "Pavana Lachrymae" (eventually be replaced by a quote from Schubert's *Tod und das Mädchen*) including technical instructions for bowing behind the left hand.[25] The most notable part of this page, however — at least for the purposes of understanding Draft A — is the blank space between the titles of the movements. Returning to the page discussed previously in this chapter, shown in Figure 1.6 and reproduced below, we see similarities; the title of movement 7 is in the upper left-hand corner in the same black pen and script as the movement titles for movements 5 and 6. The remainder of the page, as discussed, is filled with sketches for various movements in pencil. This page is the second discarded sheet, originally intended for Draft A. The final discarded sheet (discussed later in this chapter) shows the identical pen, script, and horizontal

[25] These instructions reference "See note for number 8, which is especially strange because this is a sketch for movement 6!

placement of the titles for movements 12 and 13. This script, pen, and placement also match most of the movement titles in Draft A, specifically movements 1, 2, 3, 4, 8, 9, and 10, the movements not shown in the three discarded pages.

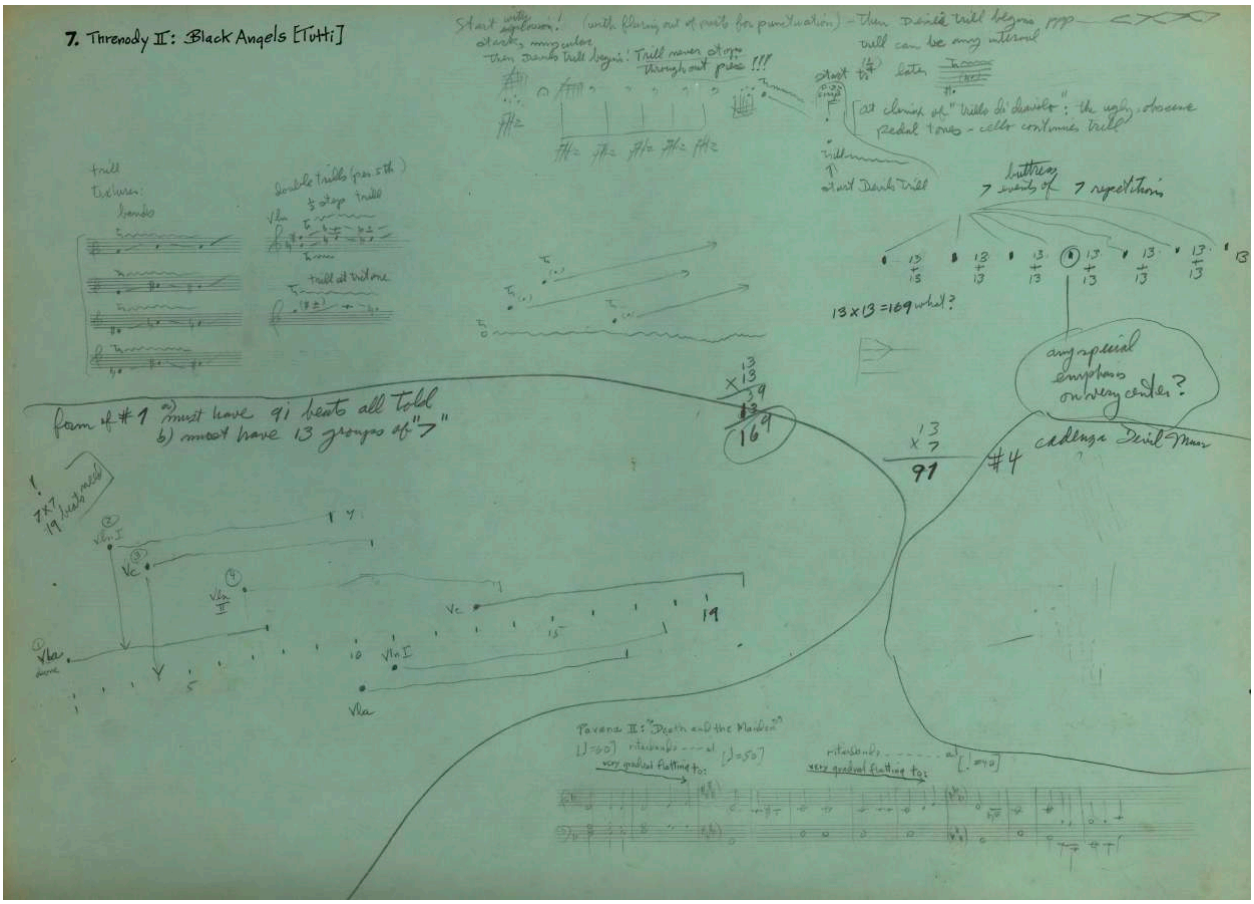


Figure 1.10 Discarded leaf intended for Draft A

Compared to portions of Draft A, the writing implements and handwriting on these documents indicate certain things were written at the same stage of composition (or, possibly, at the same work session). Specifically, we can match the writing implement and handwriting in the movement numbers, movement titles, and orchestration indications (solo, duo, trio, tutti); the pen and script for the headings of 1, 2, 3, 4, 8, 9, and 10 in Draft A match those from the three discarded pages. The fact that these headings were written around the same time is especially

clear compared to later replacements, where Crumb used a different writing utensil, a very different script, or both. See Figure 1.11 below for a direct comparison of the original samples (left) and the later replacements (right).

Figure 1.11 Comparison of Crumb's handwriting scripts

The example shows Crumb's two main scripts, which I refer to as *cursive* and *block script*, as well as the gray area between the two.[26] An especially clear example of the difference is in the word "Threnody" in the titles for movement 7; the original sample (left) is in block script, and the replacement (right) is in cursive. The text that follows, "Black Angels [tutti]," is written in a variant script between the two. While the shape of the letters is similar to the block script, the cleanliness of the script is closer to that of cursive and the baseline of the text has an

[26] I intentionally do not refer to either of these as Crumb's *Skizzenschrift* (sketch-script, a handwriting style used for sketching specifically), as Crumb used both cursive and block script, as well as variants in between, throughout the sketching process. With other evidence, it is at times demonstrable that the different scripts were reflective of different stages of the compositional process or different physical locations (e.g., the desk or the piano).

inconsistent height and angle. The same baseline inconsistencies can be seen in the replacement for #6 in the second line of text ("Grave, Solemn; like a consort of viols (non vibrato sempre)"; a more striking difference in cleanliness can be seen in #13, where Crumb wrote the replacement in block script but without the same calligraphic care he wrote the original.

Given this information, the bottom-most layer of Draft A, which Crumb started with, begins to emerge. Crumb first wrote movement numbers and titles on the blank sides of his manuscript paper, leaving empty space on the page for the estimated number of systems needed for each movement. I have recreated this initial stage in Figure 1.12 below. This is not the initial stage of composition, but just the beginning of this document; by this point, Crumb had determined much of the form and titles. This mock-up uses the titles and space from the three sheets that were replaced later in the process.

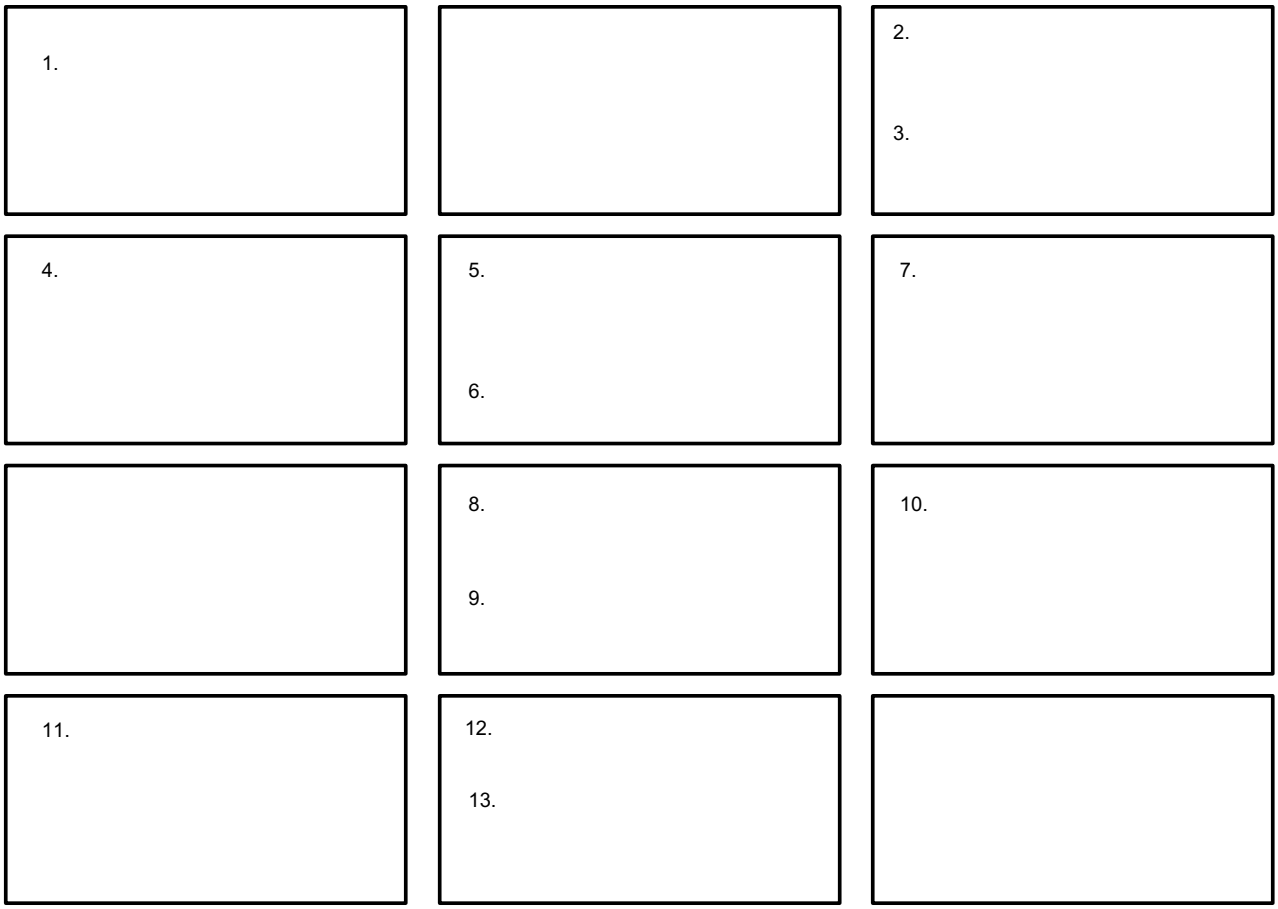


Figure 1.12 A mock-up of the original layout of Draft A

Given that those three sheets were replaced, this step occurred before Crumb taped the booklet together. But there is one more complicating factor in the construction of this booklet: the leaves that create pages 6 and 10 in the final booklet are both formed from two sheets of the sketch paper that were cut and taped together horizontally. The construction of those two pages does not affect the argument about Crumb's process — if anything, it points to the importance to Crumb of the visual and spatial layout of the draft — but it does indicate more possibilities for the original spatial layout with varying implications on the form of the work.

Figure 1.13 A discarded leaf intended for Draft A including movements 12 and 13

The next step in Crumb's process was drawing the beginning (the leftmost edge) of each system, a step towards realizing the symmetrical orchestration. Figure 1.14 demonstrates what this step looked like originally as well as what it looked like at a later stage when Crumb filled in the rest of the system. In the second example, notice the point of connection between the original start of the staff and the continuation of the staff lines (marked with red arrows).

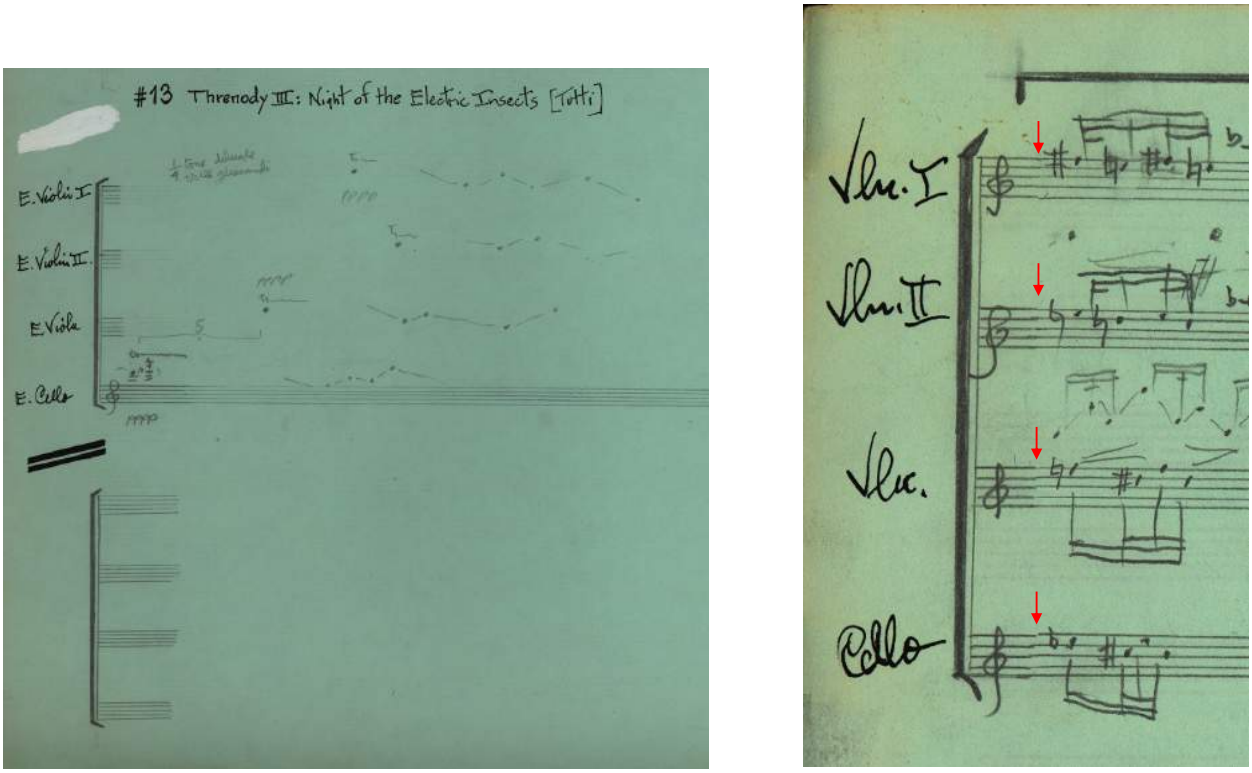


Figure 1.14 An annotated close-up of several opening systems in Draft A

As previously mentioned, staff organization is pivotal in much of Crumb's music and, in sketches, can be indicative of an advanced stage of formal organization or composition in general. In the instances in Draft A where there is no evidence of Crumb writing the start of the system before completing the staff lines, it is possible that movement was at a more complete stage before Crumb began filling in the blank space. The consistency of the writing implement used (black pen) on page 8 of Draft A, for instance, indicates that the majority of movement 8

was written at once, before Crumb annotated the work with pencil and liquid paper. This page is reproduced in Figure 1.15.

The basic stages of Draft A are as follows:

1. Blank (verso) side of pages

2. Titles (written contemporaneously, except for replaced pages)

3. Opening brace, the beginning of staves, and staff labels

4. Varying layers, levels, and methods of drafting, sketching, and annotating (layers of revision)

This is a very general overview of what the writing on the pages demonstrates. The specifics of the process are much messier, as demonstrated by the fact that Crumb replaced three sheets intended for this booklet after filling them with sketches! The fourth step I intentionally label broadly. Certain movements were at a more complete stage, such as the eighth movement shown above, before Crumb wrote them in. On pages such as that, the result is an annotated draft: a draft in black ink with layers of revision in liquid paper and pencil.[27] Other movements have layers that, when isolated, appear as various kinds of sketches or drafts. For example, Crumb sometimes wrote out the staff organization for a large section or entire movement, creating a *notational draft*, which he would later fill in or annotate.

This process of setting up space for each movement in Draft A is reminiscent of a process observed in the fair copy of Mozart's *Cosí fan tutte*.

[27] Because of the clarity of contemporaneousness in the original draft and the clarity that liquid paper provides in terms of the order of writing utensils, these layers of revision are especially interesting. I will touch on these layers in Chapter 6: The Evolution of Numerology.

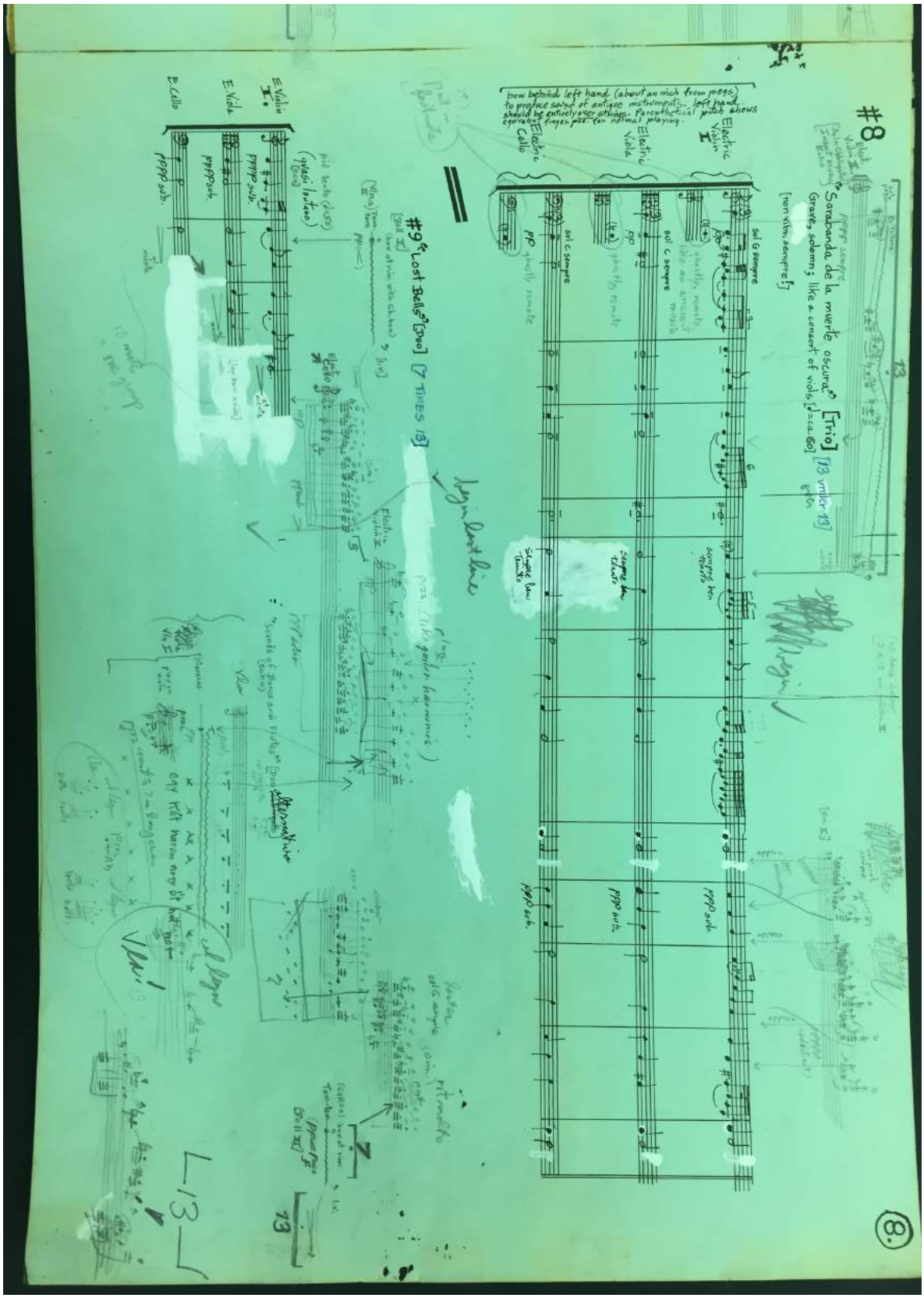


Figure 1.15 Page 8 of Draft A

> "A crucial factor in understanding Mozart's copying practices is the question of brace design. Before he put any markings on the page, he had first to estimate the likely size of the movement's scoring, so that a brace of an appropriate size could be drawn. […] The initial selection of a brace-size reflected the broad parameters of the anticipated instrumentation by allowing three, five, or seven staves of the wind, brass and timpani."[28]

Mozart estimated the number of pages needed for an aria or other section of the opera and braced vertical space encompassing staves for loosely planned orchestration, including changing winds and timpani throughout the work.[29] Similarly, Crumb laid out enough vertical space for each movement, based on the number of staves needed (again, for changing orchestration) and the length of each movement. Although this step appears to be similar, the resultant music was not, and Mozart's and Crumb's use of these documents throughout the remainder of the process was entirely different.

1.5 Crumb's Physical Interaction with and Use of Draft A

This chapter began with an excerpt of a quote by Richard Wernick, who was taken aback by an unusual compositional technique Crumb employed. Wernick remembered entering Crumb's dining room in Buffalo in 1964, which had been converted into a studio:

> ...the first impression was that of entering a small art gallery. The oversized pages of George's latest piece were all tacked to the dining room walls. They were in various

[28] Ian Woodfield, *Mozart's Così fan tutte: a compositional history*, vol. Woodbridge ; Rochester, NY (Woodbridge ; Rochester, NY: Boydell Press, 2008, 2008), 17.

[29] Regarding the relationship between these marked braces and the final orchestration, Woodfield dispels the popular notion that Mozart's music was fully complete before he ever put quill to paper: "However there was a great deal of flexibility within this framework. If the wind parts were obbligato in character, Mozart might allocate a separate staff for each instrument of the usual pairs, but if the writing were more accompaniment in character, he would often write two parts on one staff, or in extreme cases even four. He would make full use of any unused staves above and below, before eventually having recourse to a separate leaf, usually indicated with the words 'extra Blatt'. Paradoxically, although he had to make the basic decision about brace size early on, it is very evident that the detail of the wind instrumentation was often decided quite late. It is striking how often the development of the full wind scoring led to late changes that are very obvious on the page." Woodfield, *Mozart's Così fan tutte: a compositional history*, Woodbridge ; Rochester, NY, 17-18.

> states of completion, some with only a very few notes, others nearly all filled in. Their immediate effect was unforgettable: they were immaculate...[30]

Wernick's description gives us info that grainy photos cannot: Crumb did not just use this process to look in admiration at completed pieces, but would place his works on the wall in "various states of completion." The implication of this is the documents were not permanent fixtures; Crumb would move them down off the wall and back up again.

The Crumbs' stay in Buffalo was temporary; George Crumb was there for the inaugural Center of the Creative and Performing Arts at SUNY Buffalo. In Crumb's more permanent home studio in Media, PA, where he wrote the majority of his works after 1965, he installed several rows of thin shelves, upon which he'd place his sketches and drafts. Figure 1.16 is a photo of Crumb in his studio from 1985 which clearly shows these shelves. This photograph is the earliest photograph of Crumb's studio that shows the shelves; there are no photographs of this room from the *Black Angels* era. There are no residual physical marks on Draft A, in the manner of tack marks (such as the piece on Crumb's dining room walls in Buffalo), implying that these shelves had been installed before the fall of 1968.

This reveals a certain impetus for Crumb to construct the booklet in this odd manner, with only the verso sides of each sheet facing out. This method used double the amount of paper necessary, making the booklet more physically complex to construct. While the blank sides might have made it easier for Crumb to draw the staff layout for certain moments, most of *Black Angels* is written in a horizontal layout, with the most complex staff adjustment being diagonal merging and diverging in movement 7; even for those moments, sketches exist where Crumb blotted out staves with liquid paper on the rastralized side of the sheet, so there is no practical

[30] Richard Wernick, "George Crumb: Friend and Musical Colleague," in *George Crumb: Profile of a Composer*, ed. Don Gillespie (New York: C. F. Peters Corporation, 1986), 68.

Figure 1.16 Crumb in his studio in 1985

notational reason for this construction. The only reason to use one side of each sheet would be to allow Crumb to look at the entire piece at once, with all of the sheets up on the music racks.

This process whereby Crumb set up the amount of space that needs to be filled in is consistent throughout much of his early work. Wernick's observation was in 1964, the *Black Angels* sketches were from 1970, and Christopher Wilkinson noticed a similar process in the *Makrokosmos* sketches:

> … Crumb was immediately concerned with delineating the physical space "Proteus" would occupy. After having laid out six systems over two pages as the probable format, he filled in a concluding pair of measures […]. Crumb has stated that he often will 'frame the musical canvas' before attempting to articulate the form of a piece in any detail.[31]

Results of this framing are seen in *Black Angels*. Consider our knowledge of the different macro layers of Draft A. As a reminder, the sheets started with only titles and movement numbers; then the beginning lines of systems were added for certain movements; the last macro

[31] Wilkinson, "*Makrokosmos I* and *II*: A Case Study of George Crumb's Compositional Process," 57.

layer includes the rest of the staves, notes and rhythms, annotations, various layers of revision, etc. — the normal subject of sketch study. The function of these documents changed significantly throughout the creative process:

1.5.1 External and internal form sketches

The external form — the lengths of the movements — was spatially realized in the distance between movement titles. The orchestrational symmetry — the changing instrumentation throughout the piece — was decided upon and written in the movement titles as part of that form sketch. The internal structures of each movement may not have been fully defined, but were defined enough to determine the length and stave organization — the latter being crucial to the realization of form in much of Crumb's writing — creating implicit notational and internal formal sketches. Even the teleological form is realized in the large Roman numerals before movements 1, 5, and 9. When taken together, as Crumb viewed them on the wall, the document is a large-scale, spatially realized form sketch. Taken individually (or in pairs, as certain movements cross page breaks), as Crumb likely viewed them, the sheets have form sketches for each movement.

1.5.2 Continuity Draft(s)

At this point, Crumb was taking pages individually when in active use and as a unit when they are on the wall. After marking out the instrumentation of the movement, Crumb's next step was to lay out a continuity draft of the movement in some fashion, the function of which was to view the scale of the individual movement compared to the whole (a continuation of the spatial processing mentioned previously) and/or to judge how each movement or section connected with another. Depending on the movement, the continuity draft could take the form of a notational

draft, a staff layout with any amount of annotations indicating musical material, a more typical draft with complete notes, rhythms, dynamics, or a skeleton notation consisting of rhythmic shorthand, pitch material, and/or formal indications.

1.5.3 Complete Draft

At a certain point, Crumb taped all the separate pages together, fully joining the continuity drafts into the booklet extant today. Movements from this document can be individually considered drafts, and sketches and annotations can still be taken on an individual basis, but the document has generally changed from a work-in-progress to a point of reference for the fair copy. Taking what I have established about Crumb's process (the importance of the visual of the score) and the physical challenge of writing neatly on paper taped together in this manner, this binding via masking tape likely happened very late in the creative process.

All of this did not happen in a chronologically clean manner. Crumb likely filled movements in as they progressed on their individual timelines and, as previously mentioned, several of these sheets had to be replaced before Draft A was put together because Crumb wrote sketches on them instead of the drafting process outlined above. But the overall function of the document in Crumb's process was continuously changing, from the framing of the whole piece and individual movements to a completed point of reference for notating fair copy.

Crumb used identical pen and script for the entirety of the fair copy because of its eventual use as the published Edition Peters score, meaning that these macro layers are not visible in the resultant document. Other evidence does point towards Crumb using a similar process. Figure 1.17 shows a notational sketch on the back of Draft A showing the logistical layout of the fair copy. Before beginning work on the fair copy in March and April 1970, Crumb drew rectangles representing pages and lines representing the systems needed for each

movement; he did two complete versions of this before deciding on the final layout. Some of this work was surely practical; in a letter to Gilbert Ross, first violinist of the premiering quartet, in January 1970, Crumb said, “There will be no necessity for parts since all players will read from score (page turns will be carefully worked out!).”

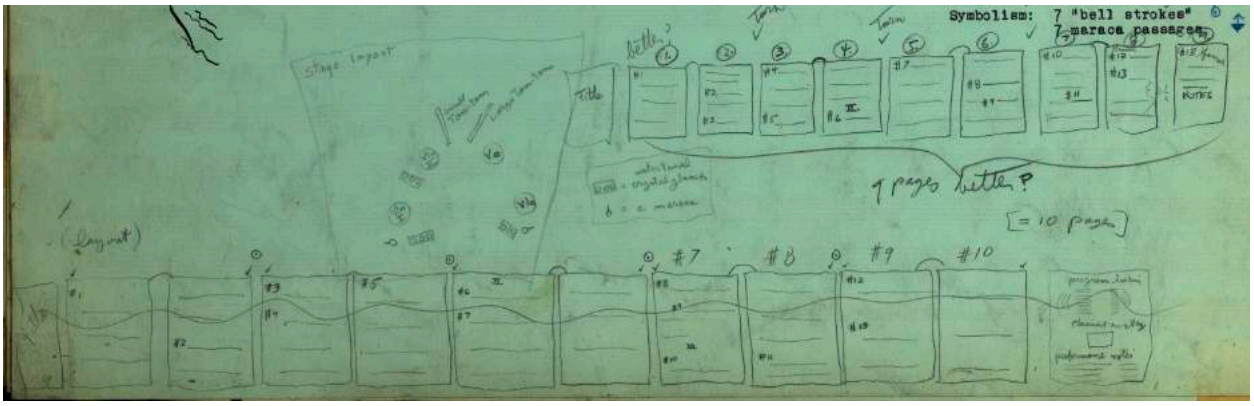


Figure 1.17 Sketch of the layout of *Black Angels*, on the back cover of Draft A

Chapter 2 From Commission to Premiere

2.1 The Stanley Quartet Commissioning History

On December 6, 1968, Gilbert Ross, founder and first violinist of the Stanley Quartet, wrote a letter to George Crumb outlining a new commission for string quartet. Crumb was known to the Stanley Quartet members through their colleagues in the composition department, who advised the Stanley Quartet on new commissions. (Crumb had graduated with his doctorate from the University of Michigan only eight years prior.) The extant documents hint that it was the influence of the composition faculty, notably Ross Lee Finney, Leslie Bassett, Edward Chudacoff, and Wallace Berry, that resulted in Crumb receiving the commission. In the following subchapter, I summarize the Stanley Quartet's commissioning history and relationships with composers to provide context on that decision-making process. This story involves many characters; for clarity and reference I have outlined key players and their positions in Figure 1.

In this chapter, I use archival records collected and donated by the founder of the Stanley Quartet, violinist Gilbert Ross. Ross kept much of his correspondence, as well as detailed records of performances, recordings and commissions, and maintained scrapbooks with countless photographs (many dated). He went to great pains to ensure his archive was organized and complete.[32] I outline notable gaps in this material throughout, offering some possible reasoning

[32] Ross's concern with his legacy is clear from several letters detailing his work with the University of Michigan at the point of his retirement. Ross requested very specific language for the UM Regents' public announcement. He was especially specific about the language in the public announcement from the UM Regents. In a series of letters after his retirement, Ross discussed

Stanley Quartet	
Gilbert Ross	Founder of the Stanley Quartet De facto administrative head of ensemble First violinist, 1949-1965, 1968-1970
Gustave Rosseels	Second violinist, 1957-197?
Robert Courte	Violist, 1951-197?
Jerome Jelinek	Cellist, 1961-197?. Composer liaison for quartet, 1970-72
Angel Reyes	First violinist, 1965-1968
Edwin Grzesnikowski	First violinist, 1970-1972
University of Michigan Administrators	
James (Jim) Wallace	Dean of University of Michigan School of Music, 1960-1970
Allen P. Britton	Dean of University of Michigan School of Music, 1971-1979 (interim, 1970-1971)
Composers / Theorists	
Ross Lee Finney	Composer and professor at the University of Michigan, 1948-1975; Crumb's teacher
Leslie Bassett	Composer and professor at the University of Michigan, 1952-1992
Edward Chudacoff	Colleague of Crumb during DMA at Michigan (grad. 1959). Composer, theorist, and professor at the University of Michigan, 1965-1995
Wallace Berry	Composer, theorist, and professor at the University of Michigan, 1957-1977

Figure 2.1 The names and roles (academic and otherwise) of people related to the Premiere of *Black Angels* and mentioned in this chapter

for the missing material. The most notable gap is the lack of internal correspondence detailing the decision to commission Crumb in 1968. In order to understand why this gap might exist and fill in some possible details of this deliberation, I first give a brief overview of the Stanley Quartet's commissioning practices, then go into detail about commissions from 1963 to 1970.

the loss of the title "First Violinist of the Stanley Quartet" with Allen Britton, Dean of University of Michigan School of Music. For instance, in a letter dated July 3, 1971, "I doubt that 'Regent' is an academic title; yet several past members of the Board hold the title 'Regent Emeritus.' […] If the title 'First Violinist of the Stanley Quartet' were not an acceptable title granted me, not once but twice, I think it should be honored in my retirement. I would be sincerely distressed to be divested, after 22 years, of the title that associates me with a very special contribution to the School and the University. I can't believe that the Regents would intentionally detach me from the Stanley Quartet association just because the title, freely granted by the Regents in 1949, does not conform precisely to the hierarchy of conventional academic titles."

Crumb was likely aware of the Stanley Quartet's existence and their work with twentieth-century composers. During Crumb's doctoral degree at the University of Michigan from 1955 to1960, the Stanley Quartet performed dozens of concerts on campus and performed works by Ross Lee Finney (Crumb's teacher), Leslie Bassett, Bartok, Milhaud, Porter, Husa, Stravinsky, Chevreuille, Kirchner, Turina, Halffter, and Lees. The Stanley Quartet had a long history of working with contemporary composers and commissioning new works. Gilbert Ross, in a summary of the Stanley Quartet's history written as an introduction to the never-created Stanley Quartet Archive, emphasized this point:

> From its inception the Quartet recognized its obligation to explore and present new music, and this commitment was substantially advanced by a program of University of Michigan chamber music commissions, initiated in 1949. […] In the category of new music, the Quartet gave first performances of more than twenty-five major works and recorded several important contemporary works for Columbia Records, Composers Recordings, and Contemporary Records. During a twenty-year period, contemporary music accounted for approximately a third of the Quartet's repertory of more than one hundred and forty compositions.[33]

The Stanley Quartet asked dozens of composers to write new works for them, resulting in almost yearly commissions in their first thirteen years. Although some of these commissions did not pan out — Copland, Barber, Martinu, Stravinsky, and Hindemith all politely declined — the majority of composers asked did agree, resulting in the following works from 1949-1962: Walter Piston: Piano Quintet; Quincy Porter: String Quartet No. 8; Wallingford Riegger: Piano Quartet,

[33] In the early 1980s, Gilbert Ross listened to every recording of the Stanley Quartet that existed and organized them by composition and ensemble members (since the ensemble membership changed significantly over time). He recommended which tapes to keep and which to destroy, wrote a brief document covering the history of the ensemble as well as his methods of organizing the tapes, and donated a significant amount of other materials (correspondence, programs, and scores) related to the ensemble. This was all in the hope of creating a "Stanley Quartet Archive," a collection that was never formally created. It is unclear what happened to the reel-to-reel tapes Ross organized, but the papers he donated were split between the Gilbert Ross Papers at the Bentley Historical Library (BHL) and the Stanley Quartet Commission Papers (formerly at the Special Collections Library, now also at the BHL) at the University of Michigan.

Op. 47; Darius Milhaud: Quintet No. 2, for string quartet and double bass; Heitor Villa-Lobos: String Quartet No. 14; Robert Palmer: String Quartet No. 3; Leon Kirchner: String Quartet No. 2; Rodolfo Halter: String Quartet; Elliott Carter: String Quartet No. 2; Ulysses Kay: String Quartet No. 3; and Robert Gerhard: String Quartet No. 2.

Although the Stanley Quartet worked with many high-profile composers, the series of commissions was not widely advertised. In the first edition (1961) of Joseph Machlis's book *An Introduction to Contemporary Music*, many of the works the Stanley Quartet commissioned over its first decade are included without any mention of the ensemble. Specifically, Leon Kirchner's Quartet No. 2, Elliott Carter's Quartet No. 2, and Quincy Porter's Quartet No. 8 are all discussed individually in the book without mention of the ensemble. In the case of the Kirchner work, the commission was incorrectly attributed to the Fromm Foundation. Gilbert Ross wrote a letter to Machlis to point this out and request that the Stanley Quartet be mentioned if a second edition was written.[34] Machlis responded kindly to this request:

> […] I must have followed someone in misattributing the Kirchner work to Fromm. It shows you that the Fromm Foundation has a better public relations man than the university. What surprises me, considering that I did so much reading on contemporary music, is that I never heard of your series of commissions. It is especially astonishing in the case of the Carter work, which caused a furore in New York. It is incredible that the fact was not mentioned in the program notes of the concert, which I attended, or in any other material – (I asked Carter himself to send me material on the work); so I must conclude that I saw the fact but forgot it. On the otherhand, I have an extremely retentive memory for details that interest me, and it would certainly have interested me that this

[34] Correspondence from Ross to Machlis 3 August 1963, 845378 Aa 2, Box 1, Gilbert Ross Papers, Bentley Historical Library, University of Michigan.

sensation-causing work should have come out of a university, seeing that I am part of the academic world.[35]

It does seem strange on the surface that no mention would be made of the commissioning ensemble for Carter's second quartet, given the piece won Carter his first Pulitzer Prize. Two issues arose for the Stanley Quartet as part of this commission. First, given the difficulty of the work and the lack of sufficient rehearsal time, the ensemble was unable to prepare it properly; they gave up the right to the premiere with the intent of programming it in the future. Second, Carter and the University of Michigan had a disagreement about the ownership of the manuscript, which Carter had sent to the Stanley Quartet for the preparation of parts by student copyists. The university eventually returned the manuscript, but the debacle did lead to significant changes in standard operating procedure for the commissions, as the ensemble was no longer willing to take on the task of making performance parts. On December 17, 1959, the University of Michigan School of Music Executive Committee approved a document titled "Stanley Quartet Commissioning Policies," which unfortunately no longer exists in any University of Michigan records.[36]

Correspondence between Stanley members and notes from quartet meetings indicate that the ensemble was interested in the age and background of the composers they were commissioning. In a letter written during deliberations for the 1959 commission, Gilbert Ross included a list of twenty-five composers, many labeled as "(European)" or "(older)." In addition, the composers the Stanley Quartet had previously commissioned are listed at the top of the page,

[35] Correspondence from Machlis to Ross 11 August 1963, 845378 Aa 2, Box 1, Gilbert Ross Papers.
[36] Most of these records are held at the Bentley Historical Library, however, executive committee meeting minutes for 1952-1959 are missing. There is no mention of "Stanley Quartet Commissioning Policies" in the faculty communication (1957-1961) or the faculty minutes (1957-1959).

each labeled with nationality, age (generalized as “older” or “younger”), and whether the composer supplied a quartet or a quintet. A transcription of that list is below in Figure 2.2.

Piston	American	older	Quintet (piano)
Porter	American	older	Quartet
Riegger	American	older	Quintet (piano)
Milhaud	European	Older	Quintet (string)
Villa-Lobos	Brazilian	older	Quartet
Palmer	American	younger	Quartet
Kirchner	American	younger	Quartet
Halffter	Mexican	older	Quartet
Carter	American	younger	Quartet

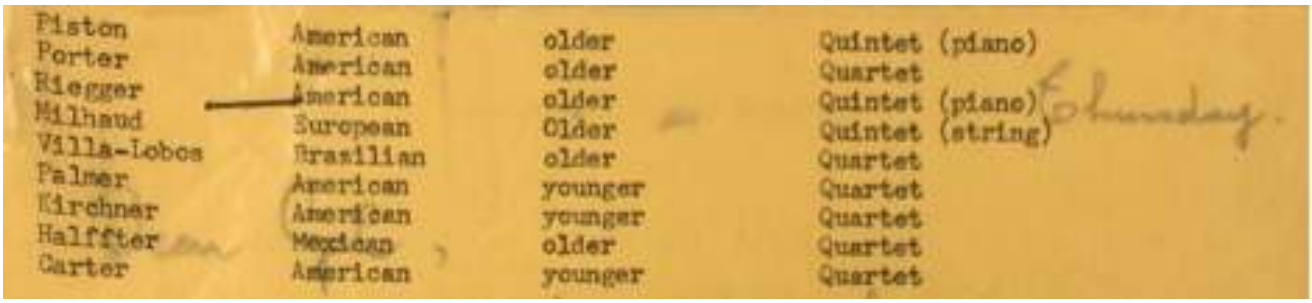


Figure 2.2 Letter from Gilbert Ross to Stanley Quartet, April 28, 1959. Top of page, with transcription[37]

The Stanley Quartet eventually decided to commission Roberto Gerhard in 1959. Similar deliberations occurred in 1962-1963; a note from a quartet meeting includes a nearly identical list of composers. The relatively new cellist of the ensemble, Jerome Jelinek, wrote to Ross with a new idea. Jelinek wanted “to follow the idea of granting two commissions; one to a well known composer, and one to a lesser known person.”[38] After first broaching the subject of another commissioning project in August 1962, the Stanley found it difficult to agree on a composer, as Gilbert Ross detailed in a letter to Jim Wallace:

[37] The handwriting that is visible behind this text (such as “Thursday” on the far right) is Robert Courte’s, the violist of the Stanley Quartet. It is not on the yellow sheet. The yellow sheet is quite opaque and the entirety of Courte’s letter to Ross, which was stapled immediately behind Ross’s letter to the ensemble, is readable. The letter lists composers to be considered for future commissions.

[38] Correspondence from Jerome Jelinek to Gilbert Ross, 45378 Aa 2, Box 2, Gilbert Ross Papers.

> …the Quartet personnel has simply not been able to fully agree on just who should be invited next. There was in no way a conflict; just a difference of opinion on commissioning policy – older, well-established composers, new young talents, American composers, foreign composers, conservative composers, way-out composers, etc., etc.[39]

Finally, in June 1963, the Stanley Quartet decided to commission Salvatore Martirano to write a new work for the ensemble. Martirano, like Crumb, was originally a recommendation from the composition department (specifically Ross Lee Finney and George Wilson).[40] Commissioning Martirano was a realization of Jelinek's idea of commissioning two different composers, which possibly served as a solution to the stalemate. As Ross noted in a letter to Jim Wallace,

> I should perhaps remark that the above proposal constitutes the first half of a 2-commission package which we have in mind. We are not yet quite ready to propose a composer for the other commission. Mr. Martirano would represent the category of greatly promising young composers who have not yet achieved wide renown. It would be our intention of recommending for the other half of this commission package a composer of a somewhat different category, that is, a composer who has already achieved status and distinction and whose name carries prestige.

From extant letters, it does not appear that the Stanley Quartet ever decided who this second composer would be. Instead, in the fall of 1963, Ross remarked to Wallace Berry, a composer and member of the theory department, that Berry's idea of setting up an "Advisory Committee to meet jointly with the Stanley Quartet on the matter of future commissions" would be beneficial. There was no further motion on the second commission; the creation of an official

[39] Correspondence from Gilbert Ross to Jim Wallace, 45378 Aa 2, Box 1, Gilbert Ross Papers.
[40] This recommendation is noted in a small scrap of paper with Martirano's name on it and the indication "For commissioning […] Suggested by: Ross Finney, George Wilson." 45378 Aa 2, Box 2, Gilbert Ross Papers.

advisory committee was not discussed further until Berry brought it up again in a letter in September 1965.

In July 1963, Martirano agreed to supply a new piece for string quartet within approximately two years. Instead, the Stanley Quartet's commissioning series went dark for a half decade. It appears that Martirano did not have the time or creative interest in writing a string quartet during that period –in a letter from 1968, he wrote, "…I deeply regret I have not been able to produce a string quartet. You will understand if I tell you that I have never been able to write successfully without a very strong impulse."[41] Martirano, a first-year professor at University of Illinois when the Stanley Quartet commissioned him in 1963, also had other large projects during that time, notably a large theatrical piece titled *Underworld* and an electronic piece titled *L's GA* (Lincoln's Gettysburg Address, for "gassed-masked politico, helium bomb, 3-16mm movie projectors, and 2 channel tape recorder"). He was also doing extensive work with his newly developed Sal-Mar Construction, the world's first composing machine.

Other internal reasons also contributed to the delay. From the extant records, it appears that Gilbert Ross was the de facto administrative leader of the ensemble (possibly related to his role as the head of the Strings Department at the University of Michigan). He was also the main liaison between the ensemble and outsiders; Ross took on the bulk, if not entirety, of communication between the Stanley Quartet and school administrators and composers.

In the summer of 1965, around the time Martirano was supposed to deliver his new work, Ross made the decision to leave the ensemble and was replaced by Cuban violinist Angel Reyes.

[41] It is unlikely that Martirano ever began serious work on the quartet. There are four folders of undated documents in Martirano's archive at the University of Illinois (Salvatore Martirano Music, Personal Papers, and Sal-Mar Construction, 1927-1999, Box 14, Folders 3-6) that should house any extant sketches related to the quartet. The only quartet in that archive is for two cellos, clarinet, and violin and is incomplete. There are partial fragments of works that could have been starting points for any work, but there is no way to confirm whether any of these are related to the Stanley Quartet commission (or any other piece, for that matter). I am very thankful to Scott Schwartz, the Archivist for Music and Fine Arts at the University of Illinois, for his assistance in my remote search for these sketches.

Ross left because he was going on leave for the 1965-66 academic year and, in his words, "the burdens of incessant rehearsal, barnstorming travel, and constant public concerts (25-35 per year) have become a real drain on my strength and energy. For these reasons (and these alone) I would like to be released from my position as first violinist of the Stanley Quartet."[42]

Ross's exit from the ensemble prompted, at least in part, the largest gap in the Stanley Quartet's commissioning project since the ensemble's inception. No one in the ensemble followed up with Martirano nor made motion on new commissioning projects, although other members of the faculty still had the commission on their minds. Since Ross's exit from the ensemble was not publicly announced until the end of Ross's academic leave in June 1966, Ross's colleagues still reached out to him with their concerns about the ensemble. Wallace Berry brought up in a letter in September 1965 that "not all of us are happy about the Martirano commission." Berry proposed that future commissioning decisions be made jointly by all parties who have "interests in and competence in the field of 20th century music," since the commissions were completed using general university funds, not Stanley Quartet-specific funds. This letter, essentially a second request to create an advisory committee, did not lead to the creation of any official committee (assumedly because the recipient of these ideas was no longer officially a part of the ensemble).

In the summer of 1968, Angel Reyes left the Stanley Quartet for unknown reasons; he remained on faculty at the University of Michigan.[43] The administration knew that the ensemble was having difficulties; Jim Wallace first mentioned it to Gilbert Ross at a lunch on November

[42] Ross further emphasized this in a second letter regarding an official announcement about his retirement from the quartet. "The conventional explanation says '----- wishes to devote more time to teaching and/or research, etc., etc. -----' This is really not the truth in my case. I find the professional activities and demands of the Stanley Quartet too strenuous and too arduous as I get older. Do you suppose that there might be some way of giving this truthful reason without having it sound as though I were on my last legs?"

[43] In a letter dated May 6, 1968, Ross wrote to Wallace regarding a new chair for the string department. Of Angel Reyes, he wrote, "[…] Further, he would start with the Quartet members against him." 45378 Aa 2, Box 1, Gilbert Ross Papers.

13, 1967. In a follow-up letter, Ross requested that Wallace "keep confidential my observations on the Stanley Quartet problems."[44] A subsequent phone call revealed how serious the problems had gotten: by December 1, Wallace was of the mind that the ensemble should "immediately explore possible names…for the first violin chair."[45] Ross was one of the first names on that list, as Wallace made known in that same phone call. Ross was unequivocal in his desire to remain separate.

> Although I would, of course, be gratified should the quartet members express a desire to have me return to my old post for the 1968 summer session, I would under no circumstances wish to do so. As you are fully aware, there are serious internal problems in the Stanley Quartet at the present time and I would not wish to become involved in any way.[46]

Within a week of that letter, Ross had accepted an offer to return to the ensemble for the 1968 summer session. After settling into his old position in the ensemble for the summer – a process that "seemed very natural" – in September 1968 he agreed to stay with the ensemble for the 1968-1969 school year and immediately revamped the commissioning project.[47] By October 4th, he wrote to Martirano requesting a completed piece or a cancelling of the commission, the latter of which Martirano agreed to.

The 1968-1969 Stanley Quartet Annual Report, the first of its kind since Ross's departure, had the following update regarding the commissioning program:

> After a lapse of several years, at least some of which were devoted to awaiting the delivery of the Martirano score, commissioning was resumed in the fall of 1968. After consultation with several members of the theory and composition departments, the

[44] Correspondence from Ross to Wallace 13 November, 1967, 45378 Aa 2, Box 1, Gilbert Ross Papers.
[45] Correspondence from Ross to Wallace, 1 December 1967, 45378 Aa 2, Box 1, Gilbert Ross Papers.
[46] Correspondence from Ross to Wallace, 1 December 1967, 45378 Aa 2, Box 1, Gilbert Ross Papers.
[47] Correspondence from Ross to Wallace, 21 September 1968, 45378 Aa 2, Box 1, Gilbert Ross Papers.

> Stanley Quartet recommended that invitations be extended to Mr. George Crumb and Mr. Seymour Shifrin. Both accepted the University's commission. Each will compose a string quartet. The Crumb commission is scheduled for delivery not later than the summer of 1970 and the Shifrin commission is scheduled to follow approximately a year later.[48]

There are no surviving records from internal Stanley Quartet deliberations nor records of consultations with members of the composition and theory departments from this period. There is a hint in the letter to Crumb, however, and some assumptions can likely be made from the extant records for the past commissions. Ross's offer letter to Crumb says, "I must tell you that your name stood very high on a rather extensive list of possible commissionees, prepared by members of the Stanley Quartet with the advice and recommendations of Professors Finney, Bassett, Chudacoff, and Berry."[49] From this letter and the mention in the report, it appears that an informal advisory committee was created and the input of the composers and theorists with expertise in 20th-century music was taken into account. Their support is not surprising; Crumb had been awarded the Pulitzer Prize a few months prior, Finney was Crumb's primary teacher at U-M, and Chudacoff and Bassett were both colleagues of Crumb's while he was a student.[50] Crumb was also a compromise between older, established composers and newer talent. His recent successes had propelled him to an enviable stature and he was a tenured professor at the University of Pennsylvania, but he was relatively young compared to many of the composers the Stanley typically considered. Given the previous "younger" composer commission did not end as planned, it is easy to imagine the desire of the Stanley Quartet and their advisors for a reliable choice.

---

[48] Annual Report of the Activities of the Stanley Quartet 1968-1969, 45378 Aa 2, Box 2, Gilbert Ross Papers.
[49] Correspondence from Ross to George Crumb, 6 December 1968, ML31.C87, Box 12, George Crumb Papers, Library of Congress.
[50] Notably, Edward Chudacoff first introduced Crumb to the poetry of Federico Garcia Lorca, spurring Crumb's fascination with Lorca's poetry that continued throughout his entire career.

The choice of Seymour Shifrin, too, shows the influence of the composition and theory department. Shifrin had sent scores to George Wilson in 1963 for review by the university's ensembles, including the Stanley Quartet; Shifrin was invited by the university to be a featured composer at the 1969 Contemporary Festival; and, after Shifrin was a guest at his house during the festival in 1969, Wallace Berry requested copies of a violin/piano work to possibly perform with Robert Courte and referenced more recent conversations between the two.[51] Regardless of whether the members of the Stanley Quartet or the informal advisory committee knew Shifrin personally in the manner they knew Crumb, they appreciated Shifrin's music enough — and trusted his stature enough — for him to become highly involved in new music affairs at the university starting in 1969.

Much of this is, by necessity, educated guesswork, because of the gap in records regarding this commissioning decision. Knowing the level of detail in Gilbert Ross' records, however, the gap is fascinating in itself. One likely scenario is the gap is a product of the creation of the advisory committee. The increase in input from various sources, a change in the meeting structure of the ensemble, and, possibly, a change in who received all the lists of possible composers to commission all could create a situation where Gilbert Ross was not in possession of the documents at the end of the decision-making process.

The maintenance of correspondence regarding the Stanley Quartet starts to dwindle in 1970. Gilbert Ross resigned from the Stanley Quartet again in the summer of 1970; this time, he retired from the University of Michigan entirely. He was replaced in the ensemble by violinist Edwin Grzesnikowski. Jerome Jelinek, however, took over corresponding with composers, as shown by letters between him and Crumb regarding the premiere of *Black Angels*, discussed in

[51] Correspondence from Wilson to Shifrin 24 August 1963; correspondence from Burt to Shifrin 29 April 1969; correspondence from Berry to Shifrin 6 April 1970, MSS 36, Box 14, Folder 4, Shifrin (Seymour) Papers, Yale University Special Collections.

the next chapter, and letters from Jelinek in Seymour Shifrin's archive at Yale University Libraries. In 1972, the personnel of the Stanley Quartet changed again and the ensemble continued as a piano quartet, instead of a string quartet. The drastic change in the ensemble came at the same time as the delivery of Shifrin's 5th string quartet to Jelinek in August 1972.[52] Jelinek arranged for a premiere of the work in October 1972, however, and had the following to say about the work:

> The work was received very well and in general I believe the performance was as good as we might expect under the conditions. […] It reminded me of one of our earlier commissions, the Gerhard St. Q. #2 (1962) which took much preparation and was extremely difficult for a 1st performance - however, after a dozen or so performances, we felt very comfortable on stage with the piece. I am sure your #5 would be the same, but unfortunately we no longer have the situation with the Stanley Quartet that existed at that time.[53]

With the exception of the Carter commission, the Stanley Quartet had a practice of completing multiple performances of a commissioned work. Most of the pieces written for the ensemble were in their main rotation of repertoire alongside earlier works and then-recent works by Bartók and others. It is, of course, impossible to say what the history of *Black Angels* might have been had Gilbert Ross not retired; even though he wasn't a member of the quartet, he discussed *Black Angels* and Crumb's work in general in presentations in the 1970s and 1980s. It is possible they would have toured with the work and given many performances as with past commissions. But, due to the changes in personnel, the instrumentation of the ensemble, and, to be sure, countless other factors not indicated by the archival record, *Black Angels* was only

[52] Correspondence from Jerome Jelinek to Seymour Shifrin, 6 September 1972, MSS 36, Box 14, Folder 4, Shifrin (Seymour) Papers.
[53] Correspondence from Jerome Jelinek to Seymour Shifrin 27 October, 1972. MSS 36, Box 14, Folder 4, Shifrin (Seymour) Papers, Yale University Special Collections.

performed by the Stanley Quartet once, leaving the path open for other ensembles to champion the work.

In the following half of this chapter, I detail the time between Crumb's acceptance of the commission and the delivery of the *Black Angels* scores to the ensemble in April 1970.

2.2 Composition Log

In this second subchapter, I discuss the compositional timeline of *Black Angels* using archival correspondence and Crumb's composition work schedule from 1969-1970. This work schedule, as previously mentioned, was shared with me by Crumb's archivist, Steven Bruns, who scanned the entirety of a small ledger book bound in black leather that Crumb used for much of the 1960s and 1970s. Bruns shared the pages of this book that were relevant to *Black Angels*. I use the term *ledger book* to refer to the book in its entirety and refer to the schedules the book contains as the *composition logs*.

Pages 110-116 of this book span from May 23rd, 1969 to April 22nd, 1970 and include the completion of the final editions of *Madrigals, Books I and II*; the start of *Vox Balaenae*; the start of *Ancient Voices of Children*; the composition of *Night of the Four Moons*; and the composition of *Black Angels*. I have transcribed the entirety of the composition logs for *Black Angels*, which span pages 110-116 of the ledger book; the seven pages with transcriptions are in Figure 2.3 below. While these pages are immaculately detailed, showing a regularity and intensity of work that matches Crumb's own description of his process as "tortuous," they also include personal notes regarding exercise, travel, and yard work.[54] My transcriptions include comments where writing has been covered up by other text; all of my transcriptional comments are in sans serif text. Crumb did not use the printed grid in the ledger book and instead drew his own rows and

[54] "It's torturous, really, composition. It's deadly slow, you know, it's painful." Author's interview with Crumb, see Appendix A.

columns; I omitted the printed grid from the transcription for clarity. Apart from the page numbers in the upper outer corners, only markings in Crumb's hand are included; these are all in a serif font. I used question marks (?) in place of a determinate number of indecipherable letters, numbers, or symbols (e.g., three question marks ??? indicated three letters, numbers, or symbols are visible but indecipherable). Three italicized question marks (*???*) appear in place of indecipherable text where the number of letters, numbers, or symbols is unclear; many of these annotations could likely be deciphered with the original document in hand.

I will first give an overview of the compositional log, contextualizing Crumb's work *Black Angels* with his work on other pieces and life events. I will then look at some of the hints this document provides, namely the annotations on certain days in the log that reference musical material or parts of the composition process. Crumb was private about his work and did not write about his compositional process in any detail in extant letters or published writings. Chronological work on his sketches, as well as details of any terminology Crumb used to describe his process, was previously limited to the information on the documents themselves (which were undated). The composition logs change the possible scope of this research and our understanding of how Crumb viewed his own process.

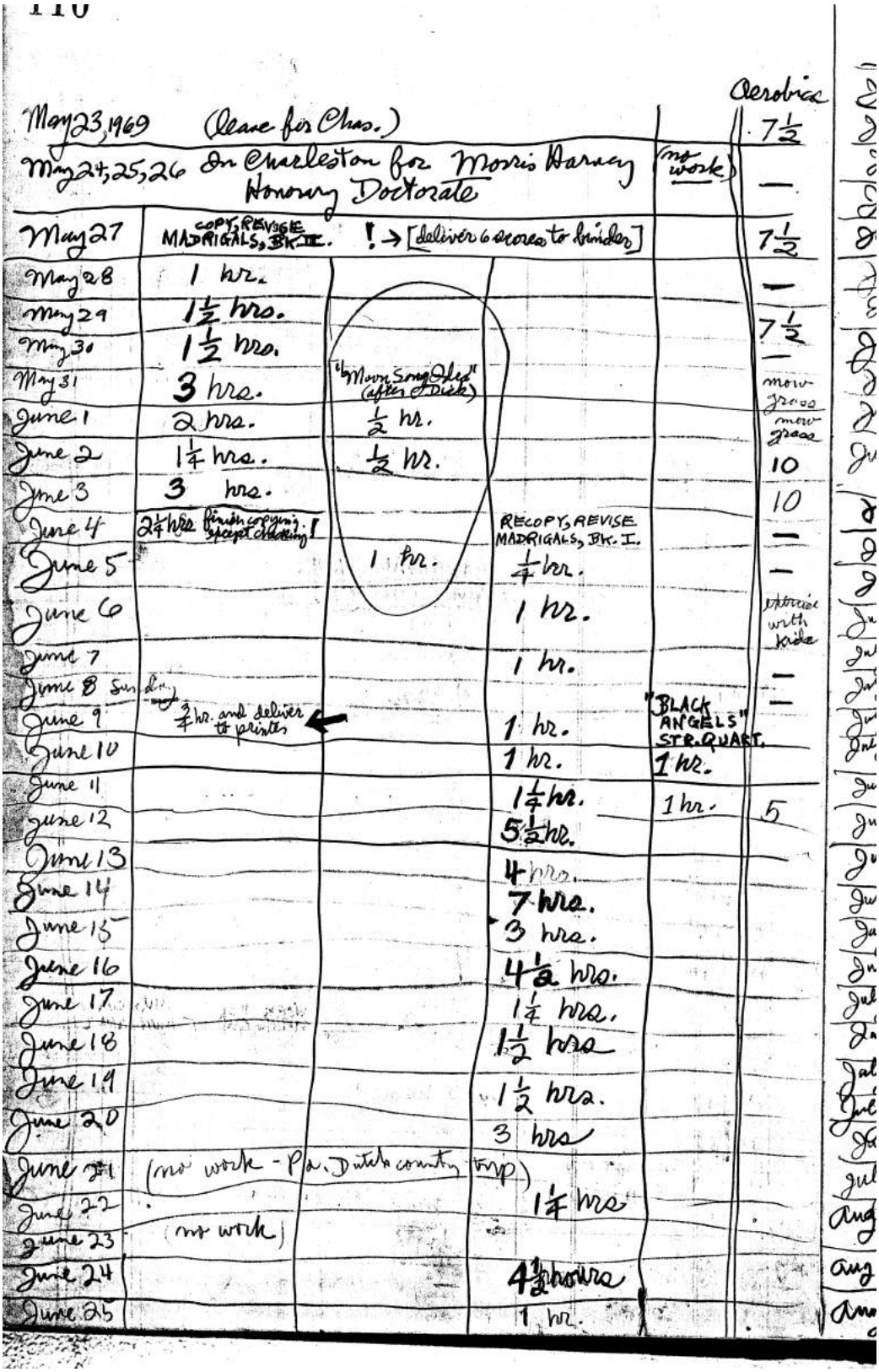


Figure 2.3 [continued on following pages]: Scans and transcriptions, with commentary, of George Crumb's Compositional Schedule, 23 May 1969 – 22 April 1970

110

Comments:

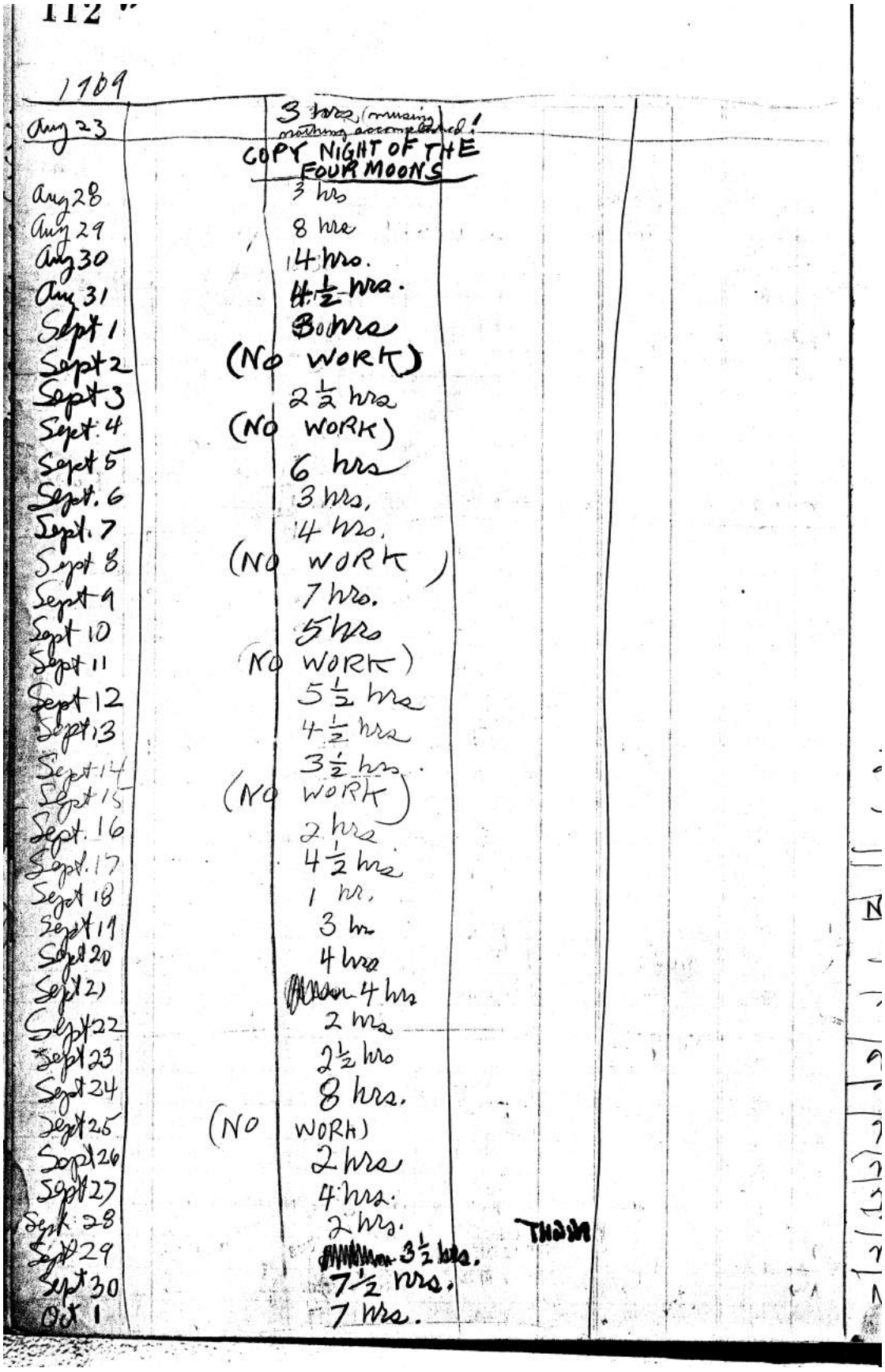
					Aerobics	
May 23, 1969	(leave for Chas.)				7 ½	
May 24, 25, 26	In Charleston for Morris Harvey Honorary Doctorate			(no work) —	—	
May 27	**COPY, REVISE MADRIGALS, BK II.** !→ [deliver 6 scores to binder]				7 ½	
May 28	1 hr.				—	
May 29	1 ½ hrs.				7 ½	
May 30	1 ½ hrs.				—	
May 31	3 hrs.	"Moon Song Idea" (after Dick)			mow grass	
June 1	2 hrs.	½ hr			mow grass	
June 2	1 ¼ hrs.	½ hr			10	
June 3	3 hrs.				10	
June 4	2 ¼ hrs. finish copying except checking!		**RECOPY, REVISE MADRIGRALS, BK. I.**		—	*???* behind 2 ¼ hrs.
June 5		1 hr.	¼ hr.		—	
June 6			1 hr.		exercise with kids	
June 7			1 hr.		—	
June 8	Sunday				—	
June 9	¾ hr. and deliver to printer ←		1 hr.	**"BLACK ANGELS" STR. QUART.**		
June 10			1 hr.			
June 11			1 ¼ hr.	1 hr.		
June 12			5 ½ hrs.	1 hr.	5	"¾ hr." behind ." 5 ½ hrs
June 13			4 hrs.			
June 14			7 hrs.			"2 hrs." behind "7 hrs."
June 15			3 hrs.			
June 16			4 ½ hrs.			
June 17			1 ¼ hrs.			
June 18			1 ½ hrs.			"½ hr." behind 1 ½ hrs.
June 19			1 ½ hrs.			
June 20			3 hrs.			
June 21	(no work - Pa. Dutch country trip)					
June 22			1 ¼ hrs.			
June 23	(no work)					
June 24			4 ½ hours			"*???*" behind "4 ½ hours"
June 25			1 hr.			

			Revise-edit Madrigals Bk. I.	
June 26			1½ hrs	
June 27-29	NO WORK		—	
June 30			4½ hrs.	
July 1			2 hrs.	
July 2			3½ hrs.	
July 3	NO WORK		—	
July 4			2 hrs.	
July 5	[delivers 6 scores to binder!]		4 hrs.	
July 6	NO WORK		—	
July 7			1 hr.	
July 8			→ 1 hr. + delivers to printer!	"Black Angel" String Quartet
July 9				
July 10				1¼
July 11				1½
July 12				
July 13	NO WORK (SUNDAY)			1½
July 14				
July 15		THE NIGHT OF 4 MOONS		¾
July 16	! Apollo 11 flight begins!!	2½ hrs		1
July 17	2.	4		—
July 18	3.	2½		—
July 19	4.	3½		—
July 20	(travel to Washington!)	—		—
July 21	(at Billó house)	5 hrs.		—
July 22	(in Media)	4 hrs.		—
July 23		3½ hrs.		—
July 24	splashdown!!	5 hrs. ←	(1st draft finished) !!	
July 25		2 hrs		
July 26		2 hrs } revision		
July 27		1¼		
July 28		—		
Aug 5.-19	In Marlboro, Vt. appears 10 hrs on Night of 4 moons			
		! NIGHT OF THE FOUR MOONS COPY-REVISE		
Aug. 21		6 hrs.		
Aug 22		3 hrs..		

111

Comments:
[none]

			Revise-edit Madrigals Bk. I.	
June 26			1 ¼ hrs	
June 27-29	NO WORK		—	
June 30			4 ½ hrs.	
July 1			2 hrs.	
July 2			3 ½ hrs.	
July 3			—	
July 3	NO WORK		2 hrs.	
July 5	[deliver 6 scores to binder!]		4 hrs.	
July 6	NO WORK		—	
July 7			1 hr.	
July 8			→ 1 hr. + deliver to printer!	"Black Angels" String Quartet
July 9				
July 10				1 ¼
July 11				1 ½
July 12				1 ½
July 13	NO WORK (SUNDAY)			
July 14		ᵥTHE		¾
July 15		NIGHT OF 4 MOONS		—
July 16	! Apollo 11 flight begins! 1.	2 ½ hrs.		1
July 17	2.	4		—
July 18	3.	2 ½		—
July 19	4.	3 ½		—
July 20	(travel to Washington!) —			—
July 21	(at Bill's house)	5 hrs.		—
July 22	(in Media)	4 hrs.		—
July 23		3 ½ hrs.	(1st. !!	—
July 24	splashdown!!	5 hrs. ←	draft finished)	
July 25		2 hrs.		
July 26		2 hrs.	revision	
July 27		1 ¼		
July 28		—		
Aug. 5. - 19	In Marboro [*sic*], Vt. Approx 10 hrs. on Night of 4 Moons ! NIGHT OF THE FOUR MOONS			
Aug. 21		COPY-REVISE 6 hrs.		
Aug. 22		3 hrs.		



112

1909

Aug 23	3 hrs (remain) nothing accomplished!
	COPY NIGHT OF THE FOUR MOONS
Aug 28	3 hrs
Aug 29	8 hrs
Aug 30	14 hrs.
Aug 31	4½ hrs.
Sept 1	8 hrs
Sept 2	(No WORK)
Sept 3	2½ hrs
Sept 4	(NO WORK)
Sept 5	6 hrs
Sept. 6	3 hrs,
Sept. 7	4 hrs.
Sept 8	(NO WORK)
Sept 9	7 hrs.
Sept 10	5 hrs
Sept 11	(NO WORK)
Sept 12	5½ hrs
Sept 13	4½ hrs
Sept 14	3½ hrs.
Sept 15	(NO WORK)
Sept. 16	2 hrs
Sept. 17	4½ hrs
Sept 18	1 hr,
Sept 19	3 hr.
Sept 20	4 hrs
Sept 21	4 hrs
Sept 22	2 hrs
Sept 23	2½ hrs
Sept 24	8 hrs.
Sept 25	(NO WORK)
Sept 26	2 hrs
Sept 27	4 hrs.
Sept. 28	2 hrs.
Sept 29	3½ hrs.
Sept 30	7½ hrs.
Oct 1	7 hrs.

THESIS

112

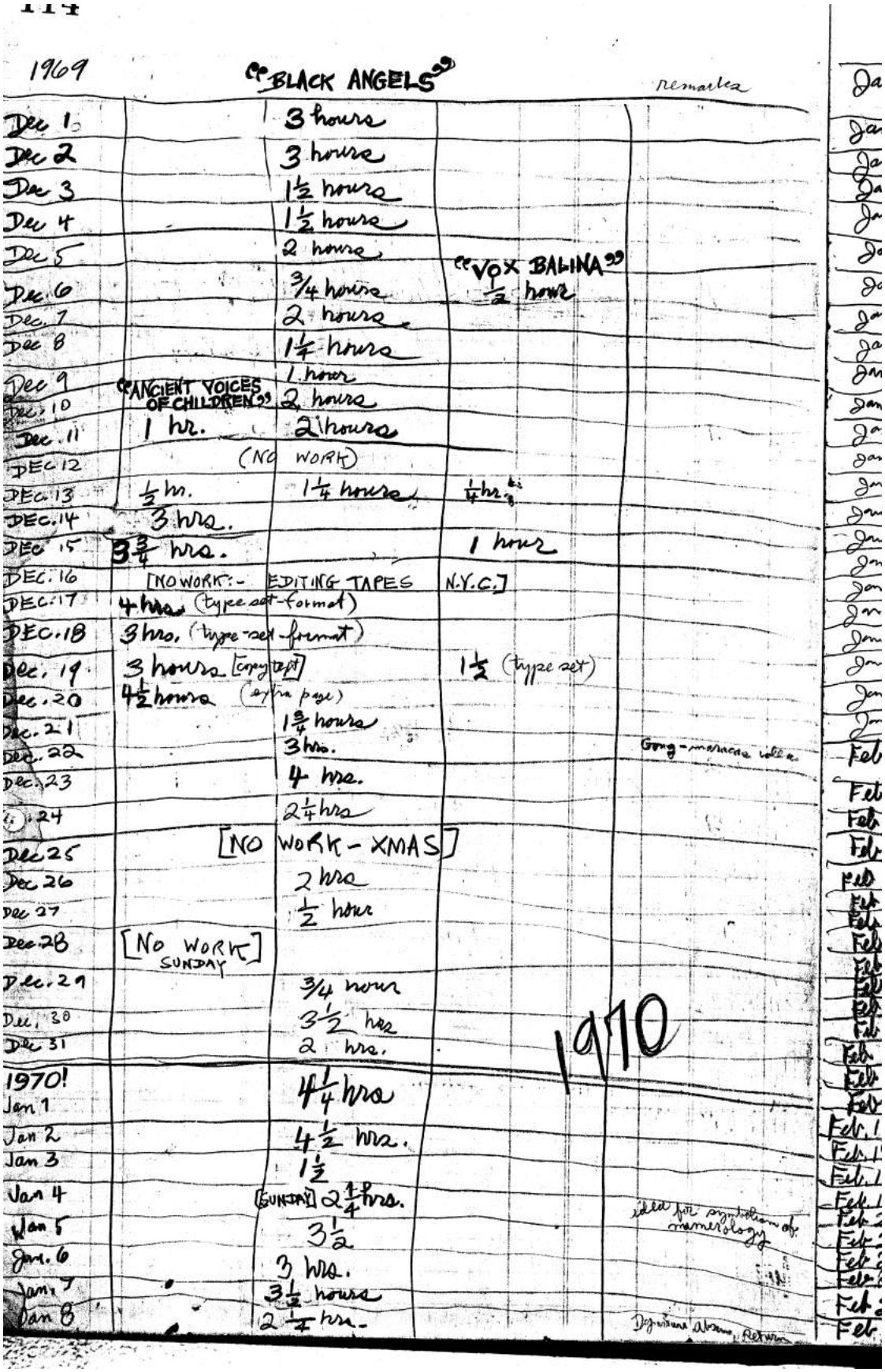
Comments:

1969				
Aug 23		3 hrs. (musing) nothing accomplished!		"hrs" covers up "[indec.]"
		COPY NIGHT OF THE FOUR MOONS		
Aug 28		3 hrs		
Aug 29		8 hrs		
Aug 30		4 hrs.		"4 hrs." covers up "10:30" [?]
Aug 21		4 ½ hrs.		"4 ½ hrs." covers up "8:15 - "
Sept 1		3 hrs		"3 hrs" Covers up "9: 00"
Sept 2	(NO WORK)			
Sept 3		2 ½ hrs		
Sept. 4	(NO WORK)			
Sept 5		6 hrs		
Sept. 6		3 hrs		
Sept. 7		4 hrs.		
Sept 8	(NO WORK)			
Sept 9		7 hrs.		
Sept 10		5 hrs		
Sept 11	(NO WORK)			
Sept 12		5 ½ hrs		
Sept 13		4 ½ hrs		
Sept 14		3 ½ hrs		
Sept 15	(NO WORK)			
Sept. 16		2 hrs		
Sept. 17		4 ½ hrs		
Sept 18		1 hr.		
Sept 19		3 hr		
Sept 20		4 hrs		
Sept 21		~~222~~ 4 hrs		
Sept 22		2 hrs		
Sept 23		2 ½ hrs		
Sept 24		8 hrs		
Sept 25	(NO WORK)			
Sept 26		2 hrs		
Sept 27		4 hrs.		
Sept 28		2 hrs.	**TH?M**	backwards 4?
Sept 29	8:?5	~~222~~ 3 ½ hrs		
Sept 30		7 ½ hrs.		
Oct 1		7 hrs.		

1969	NIGHT OF THE 4 MOONS	BLACK ANGELS	(SELECT TEXT) ANCIENT VOICES OF CHILDREN
Oct 2	1 hr.		
Oct 3	7 hrs.		
Oct 4	4 hrs		
Oct 5	NO WORK (SUNDAY)		
Oct 6	3 hrs. (copying, editing, revision finished!!)		
Oct 7	1 hour and delivers to printer (delivered binding work)		
Oct 8	NO WORK		
Oct 9			
Oct 10		3 hrs. (typewriting)	
Oct 11		5 hrs. (typeset, format)	
Oct 12	[NO WORK SUNDAY]		
Oct 13	NO WORK		
Oct 14			
Oct 15			2 hrs.
Oct 16			2 hrs.
Oct 17			2 hrs.
Oct 18-30	Rehearsals for Lorca Cycle Concert [and trip to Chas. W.Va. for Funeral]		(40th Birthday)
Oct. 31		BLACK ANGELS ½ hr.	ANCIENT VOICES ½ hr.
Nov. 1-2	NO WORK		
Nov. 3	½ hr.		
Nov. 5	NO WORK 1½ hrs.		
Nov. 6-9	NO WORK - PITTSBURGH TRIP		
Nov. 10	1 hour		
Nov. 11-16	NO WORK		
Nov. 17	1 hour		
Nov. 18	NO WORK		
Nov. 19	3 hours		
Nov. 20	1 hour		
Nov. 21	3 hours		
Nov. 22	2½ hours		
Nov. 23	NO WORK - SUNDAY		
Nov. 24	2 hours		
Nov. 25-29	NO WORK IN WASH. D.C. FOR Thanksgiving		

Comments:

1969	NIGHT OF THE 4 MOONS				
Oct 2	1 hr.				
Oct 3	7 hrs.				"10:??" behind "7 hrs."
Oct 4	4 hrs				"9:45 -" behind "4 hrs."
Oct 5	NO WORK (SUNDAY)				
Oct 6	3 hrs. (copying, editing, revision finished!!)				
Oct 7	1 hour and deliver to printer!			(delivered work binding)	
Oct 8	NO WORK		**"BLACK ANGELS"**		
Oct 9					
Oct 10			3 hrs. (type-setting)		
Oct 11			5 hrs (Typeset, format)		"11:00 -" behind "5 hrs"
Oct 12	[NO WORK SUNDAY]			(SELECT TEXT)	
Oct 13				ANCIENT VOICES	
Oct 14				OF CHILDREN	
Oct 15				2 hrs.	
Oct 16				2 hrs.	
Oct 17				2 hrs	
Oct 18-30	Rehearsals for Lorca Cycle Concert [and trip to Chas., W. Va. For funeral]			(40th Birthday)	
Oct. 31		BLACK ANGELS ½ hr.		ANCIENT VOICES ½ hr.	
Nov. 1-2	NO WORK				
Nov. 3		½ hr.			
	NO WORK				
Nov. 5		1 ½ hrs.			
Nov. 6-9	NO WORK - PITTSBURGH TRIP				
Nov. 10		1 hour			
Nov. 11-16	NO WORK				
Nov. 17		1 hour			
Nov. 18	NO WORK				
Nov. 19		3 hours			
Nov. 20		1 hour			
Nov. 21		3 hours			
Nov. 22		2 ½ hours			
Nov. 23	NO WORK - SUNDAY				
Nov. 24		2 hours			
Nov. 25-29	NO WORK IN WASH. D.C FOR Thanksgiving				



1969 — "BLACK ANGELS"

				Remarks
Dec 1		3 hours		
Dec 2		3 hours		
Dec 3		1½ hours		
Dec 4		1½ hours		
Dec 5		2 hours	"VOX BALINA" ½ hour	
Dec 6		¾ hours		
Dec 7		2 hours		
Dec 8		1¼ hours		
Dec 9	"ANCIENT VOICES OF CHILDREN" 1 hr.	1 hour		
Dec 10		2 hours		
Dec 11		2 hours		
DEC 12		(NO WORK)		
DEC 13	½ hr.	1¼ hours	¼ hr.	
DEC 14	3 hrs.			
DEC 15	3¾ hrs.		1 hour	
DEC 16	[NO WORK:- EDITING TAPES		N.Y.C.]	
DEC 17	4 hrs. (type set-format)			
DEC 18	3 hrs. (type-set format)			
Dec 19	3 hours [copy edit]		1½ (type set)	
Dec 20	4½ hours (extra page)			
Dec 21		1¾ hours		
Dec 22		3 hrs.		Gong - maracas voice
Dec 23		4 hrs.		
24		2¼ hrs		
Dec 25	[NO	WORK - XMAS]		
Dec 26		2 hrs		
Dec 27		½ hour		
Dec 28	[NO WORK SUNDAY]			
Dec 29		¾ hour		
Dec 30		3½ hrs		
Dec 31		2 hrs.		
1970!				1970
Jan 1		4¼ hrs		
Jan 2		4½ hrs.		
Jan 3		1½		
Jan 4		[SUNDAY] 2¼ hrs.		
Jan 5		3½		idea for organization of numerology
Jan. 6		3 hrs.		
Jan. 7		3½ hours		
Jan 8		2¼ hrs.		Departure Arizona Return

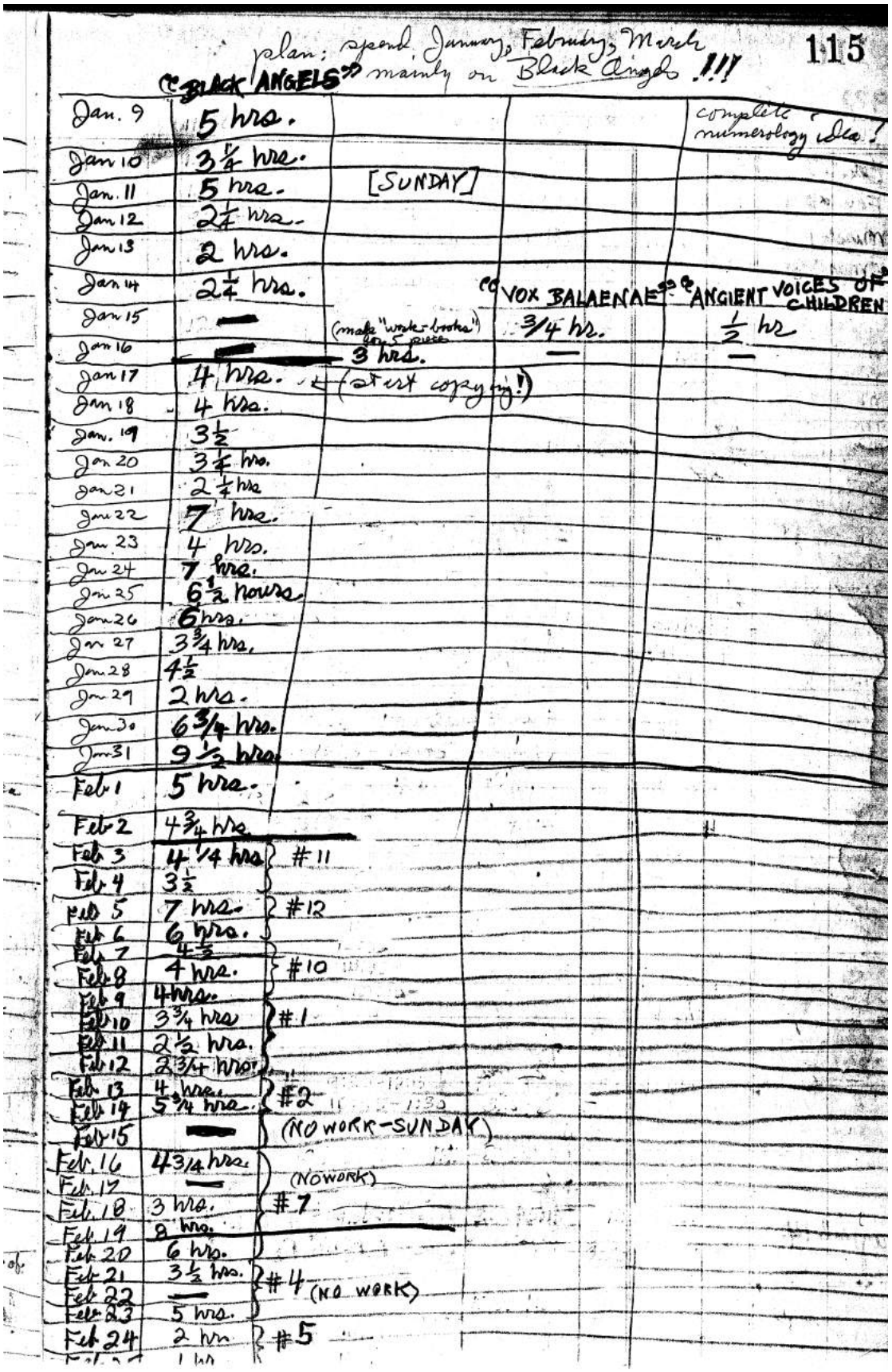
114

Comments

1969		**"BLACK ANGELS"**		remarks
Dec 1		3 hours		
Dec 2		3 hours		
Dec 3		1 ½ hours		
Dec 4		1 ½ hours		
Dec 5		2 hours		
Dec 6		¾ hours	**"VOX BALINA"** ½ hour	
Dec 7		2 hours		
Dec 8		1 ¼ hours		
Dec 9		1 hour		
Dec 10	**"ANCIENT VOICES OF CHILDREN"**	2 hours		
Dec 11	1 hr.	2 hours		
DEC 12	(NO WORK)			
DEC. 13	½ hr.	1 ¼ hours	¼ hr.	
DEC. 14	3 hrs.			
DEC 15	3 ¾ hrs.		1 hour	
DEC. 16	[NO WORK - EDITING TAPES N.Y.C.]			
DEC. 17	4 hrs (typeset-format)			
DEC. 18	3 hrs. (typeset-format)			
DEC. 19	3 hours [copy text]		1 ½ (typeset)	
DEC. 20	4 ½ hours (extra page)			
DEC. 21		1 ¾ hours		
Dec. 22		3 hrs.		Gong - maracas idea
Dec. 23		4 hrs.		
24		2 ¼ hrs		
Dec 25	[NO WORK - XMAS]			
Dec 26		2 hrs		
Dec 27		½ hour		
Dec. 28	[NO WORK] SUNDAY			
Dec. 29		¾ hours		
Dec 30		3 ½ hrs		
Dec 31		2 hrs.		
1970! Jan 1		4 ¼ hrs		
Jan 2		4 ½ hrs.		
Jan 3		1 ½		
Jan 4	[SUNDAY] 2 ¼ hrs.			idea for symbolism of numerology
Jan 5		3 ½		
Jan 6		3 hrs.		
Jan 7		3 ½ hours		
Jan 8		2 ¼ hrs.		Departure, Absence, Return

1970

"Dec" punched out by hole puncher?



plan: spend January, February, March mainly on Black Angels !!!

115

"BLACK ANGELS"

Jan. 9	5 hrs.			complete numerology idea?
Jan 10	3¼ hrs.			
Jan. 11	5 hrs.	[SUNDAY]		
Jan 12	2¼ hrs.			
Jan 13	2 hrs.			
Jan 14	2¼ hrs.		"VOX BALAENAE"	"ANCIENT VOICES OF CHILDREN"
Jan 15	—	(make "work-books" for 5 pieces)	3/4 hr.	½ hr
Jan 16	—	3 hrs.	—	—
Jan 17	4 hrs.	(start copying!)		
Jan 18	4 hrs.			
Jan. 19	3½			
Jan 20	3¼ hrs.			
Jan 21	2¼ hrs			
Jan 22	7 hrs.			
Jan 23	4 hrs.			
Jan 24	7 hrs.			
Jan 25	6½ hours			
Jan 26	6 hrs.			
Jan 27	3¾ hrs.			
Jan 28	4½			
Jan 29	2 hrs.			
Jan 30	6¾ hrs.			
Jan 31	9½ hrs.			
Feb 1	5 hrs.			
Feb 2	4¾ hrs.			
Feb 3	4 1/4 hrs.	#11		
Feb 4	3½			
Feb 5	7 hrs.	#12		
Feb 6	6 hrs.			
Feb 7	4½			
Feb 8	4 hrs.	#10		
Feb 9	4 hrs.			
Feb 10	3¾ hrs	#1		
Feb 11	2½ hrs.			
Feb 12	2¾ hrs.			
Feb 13	4¾ hrs.	#2		
Feb 14	5¾ hrs.			
Feb 15	—	(NO WORK-SUNDAY)		
Feb. 16	4 3/4 hrs.			
Feb 17	—	(NO WORK)		
Feb. 18	3 hrs.	#7		
Feb 19	8 hrs.			
Feb 20	6 hrs.			
Feb 21	3½ hrs.	#4 (NO WORK)		
Feb 22	—			
Feb 23	5 hrs.			
Feb 24	2 hrs	#5		

Comments

plan: spend January, February, March
mainly on Black Angels !!!

"BLACK ANGELS"

Jan. 9	5 hrs.			complete numerology idea!
Jan 10	3 ¼ hrs.			
Jan 11	5 hrs.			
Jan 12	2 ¼ hrs.			
Jan 12	2 hrs.			
Jan 14	2 ¼ hrs.		"VOX BALAENAE"	"ANCIENT VOICES OF CHILDREN"
Jan 15	—	(make "work-books" for 5 pieces)	¾ hr.	½ hr
Jan 16	—	3 hrs.	—	—
Jan 17	4 hrs.	← (start copying!)		
Jan 18	4 hrs.			
Jan. 19	3 ½			
Jan 20	3 ¼ hrs.			
Jan 21	2 ¼ hrs.			
Jan 22	7 hours	??:?? -		
Jan 23	4 hrs.			
Jan 24	7 hrs.			
Jan 25	6 ½ hours			
Jan 26	6 hrs.			
Jan 27	3 ¾ hrs.			
Jan 28	4 ½			
Jan 29	2 hrs.			
Jan 30	6 ¾ hrs.	*??? 2 ???*		
Jan 31	9 ½ hrs.	1?:?? - 12:?5		
Feb 1	5 hrs.	*???*		
Feb 2	4 ¾ hrs	*???*		
Feb 3	4 ¼ hrs	#11		
Feb 4	3 ½	*???* 0		
Feb 5	7 hrs.	#12		
Feb 6	6 hrs.	1? *???*		
Feb 7	4 ½	12:??		
Feb 8	4 hrs.	#10 *???*		
Feb 9	4 hrs.	10:?? -		
Feb 10	3 ¾ hrs	#1 *???*		
Feb 11	2 ½ hrs.			
Feb 12	2 ¾ hrs.			
Feb 13	4 hrs.	#2 ??:3? - 12:??	*???* —	
Feb 14	5 ¾ hrs	11:?5 - 1:30	3:?? - ?	
Feb 15	—	(NO WORK - SUNDAY)		
Feb 16	4 ¾ hrs.	?0 1:1? - ?:??		
Feb 17	—	(NO WORK)		
Feb 18	3 hrs.	#7		
Feb 19	8 hrs.	9:?0 - *???*	*???*	
Feb 20	6 hrs.	*???*		
Feb 21	3 ½ hrs.	#4		3:??
Feb 22	—	(NO WORK)		
Feb 23	5 hrs.		11:?? 1:??	
Feb 24	2 hrs.	#5 *???*		
Feb 25	1 hr	*???*		

imprint of facing page or erasure underneath 7: "1/?"

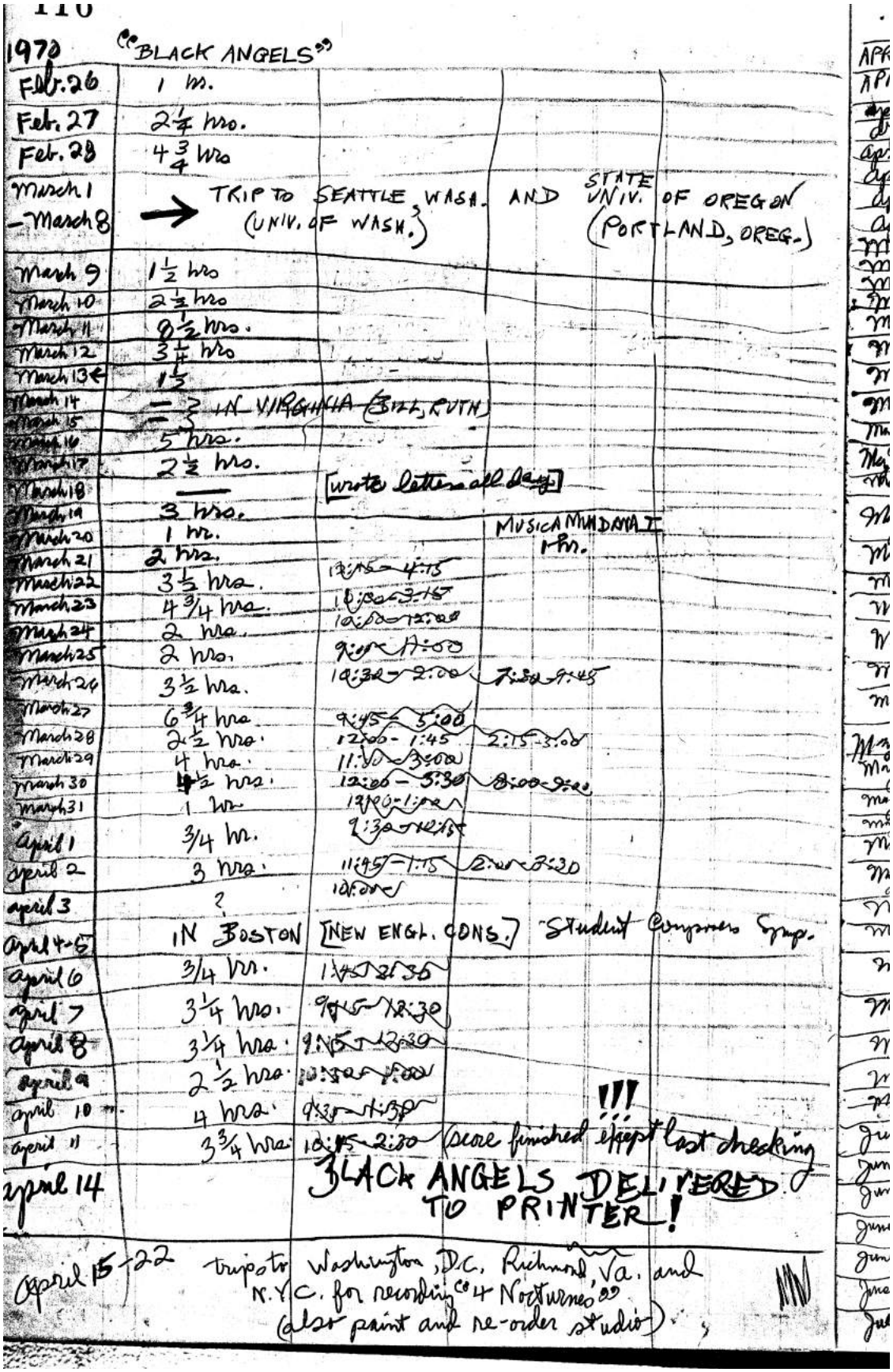
indec. text underneath 6 hrs.

possibly 12:15

possibly 3:00

hyphen not visible but likely

bottom slightly cut off in scan


1970
"BLACK ANGELS"
Feb. 26
1 hr.
Feb. 27
2¼ hrs.
Feb. 28
4¾ hrs
March 1 – March 8
TRIP TO SEATTLE, WASH. (UNIV. OF WASH.) AND STATE UNIV. OF OREGON (PORTLAND, OREG.)
March 9
1½ hrs
March 10
2½ hrs
March 11
0½ hrs.
March 12
3¼ hrs
March 13
1½
March 14
3 IN VIRGINIA (BILL, RUTH)
March 15
5 hrs.
March 16
2½ hrs.
March 17
[wrote letters all day]
March 18
3 hrs.
March 19
1 hr.
March 20
2 hrs.
March 21
3½ hrs.
March 22
4¾ hrs.
March 23
2 hrs.
March 24
2 hrs.
March 25
3½ hrs.
March 26
6¾ hrs.
March 27
2½ hrs.
March 28
4 hrs.
March 29
½ hrs.
March 30
1 hr.
March 31
¾ hr.
April 1
3 hrs.
April 2
?
April 3
IN BOSTON
[NEW ENGL. CONS.]
Student Composers Symp.
April 4-5
¾ hr.
April 6
3¼ hrs.
April 7
3¼ hrs.
April 8
2½ hrs.
April 9
4 hrs.
April 10
3¾ hrs.
April 11
MUSICA NUMIDANA II
1 hr.
!!!
(score finished except last checking)
April 14
BLACK ANGELS DELIVERED TO PRINTER!
April 15-22
trip to Washington, D.C., Richmond, Va. and N.Y.C. for recording of Nocturnes
(also paint and re-order studio)

Comments

1970	"BLACK ANGELS"			
Feb. 26	1 hr.			
Feb. 27	2 ¼ hrs.			
Feb. 28	4 hrs			
March 1 - March 8	TRIP TO SEATTLE, WASH. AND UNIV. OF OREGON STATE (UNIV. OF WASH.) (PORTLAND, OREG.)			
March 9	1 ½ hrs.	1:?? - *???*		
March 10	2 ½ hrs.	*???*		
March 11	8 ½ hrs.	10:?0 - 1?:?? *???* - 3:??		
March 12	3 ¼ hrs	1:?? - ?:30	*???*	*???*
March 13 ←	1 ½	10:?0 -		
March 14	— IN VIRGINIA (BILL, RUTH)			
March 15	—			
March 16	5 hrs.	1?:?? - *???*		
March 17	2 ½ hrs.	9:?? *???* 0		
March 18	——	[wrote letters all day]		
March 19	3 hrs.	*???* - *???*	7 *???*	
March 20	1 hr.	*???*	MUSICA MUNDANA I	
March 21	2 hrs.	*???*	1 hr.	
March 22	3 ½ hrs.	~~12:45 - 4:15~~		
March 23	4 ¾ hrs.	~~10:30 - 3:15~~		
March 24	2 hrs.	~~10:00 - 12:00~~		
March 25	2 hrs.	~~9:00 - 11:00~~		
March 26	3 ½ hrs.	~~10:30 - 2:00~~	~~7:30 - 9:45~~	
March 27	6 ¾ hrs	~~9:45 - 5:00~~		
March 28	2 ½ hrs.	~~12:00 - 1:45~~	~~2:15 - 3:00~~	
March 29	4 hrs.	~~11:00 - 3:00~~		
March 30	4 ½ hrs.	~~12:00 - 3:30~~	~~8:00 - 9:00~~	"3" behind "4"
March 31	1 hr	~~12:00 - 1:00~~		
April 1	¾ hr.	~~9:30 - 10:15~~		
April 2	3 hrs.	~~11:45 - 1:15~~	~~2:00 - 3:30~~	
April 3	?	~~10:00 —~~		
April 4-5	IN BOSTON	[NEW ENGL. CONS.] Student Composers Symp.		
April 6	¾ hr.	~~1:45 - 2:30~~		
April 7	3 ¼ hrs.	~~9:15 - 12:30~~		
April 8	3 ¼ hrs.	~~9:15 - 12:30~~		
April 9	2 ½ hrs.	~~10:30 - 1:00~~		
April 10	4 hrs.	~~9:30 - 1:30~~	**!!!**	
April 11	3 ¾ hrs.	~~10:45 - 2:30~~	(score finished except last checking	
April 14		**BLACK ANGELS DELIVERED TO PRINTER!**		
April 15-22	trips to Washington, D.C., Richmond, Va., and N.Y.C. for recording of "4 Nocturnes" (also paint and re-order studio)			

2.2.1 Overview

At the start, Crumb's work on *Black Angels* was intermittent. On June 10 and June 11, 1969, he worked on the piece for an hour each day, while he was otherwise occupied with revisions of *Madrigals, Book 1*. After delivering these revisions to the printer, Crumb returned to work on *Black Angels* on July 10-12, 14, and 16. At the launch of the Apollo 11 flight on July 16, 1969, Crumb began work on *Night of the Four Moons*, with the goal of composing the piece entirely during the mission. The composition log does corroborate stories of writing the piece during the mission; the entry for July 24 reads, enthusiastically, "splashdown!! 5 hrs. ←(1st draft finished)!!" The remainder of his entries on the piece are marked as "revision," "copy," and "edit." Crumb worked exclusively on *Night of the Four Moons* until he delivered the work to the printer on October 7, 1969, shown on page 113 of the ledger.

Crumb returned to work on *Black Angels* on October 10, 1969, and worked intermittently on the quartet, as well as *Ancient Voices of Children*, in October and November. While the amount of time spent Crumb worked on the piece does not necessarily correspond to visible progress of the sketches, for the sake of future comparison it is worth mentioning Crumb spent a total of 24 hours working on *Black Angels* in October and November of 1969. The first annotation in the *Black Angels* log appear on October 10 and 11, which have the intriguing labels "(type-setting)" and "(typeset, format)," respectively.

Regular work on *Black Angels* began on December 1, 1969, often a few hours every day. Through early January, there are several annotations that indicate Crumb's progress:

> December 22: "Gong - maracas idea"
> January 4: "idea for symbolism of numerology"
> January 8: "Departure Absence Return"
> January 9: "complete numerology idea!"
> January 17: "←(start copying!)"

These annotations relate to form sketches and the taped booklet I refer to as Draft A; I will discuss each of these markings in more detail after this overview. The final annotations that are noteworthy occur throughout February, on page 115 of the ledger. Crumb indicated he worked on the 11th movement on February 3-4, the 12th movement on February 5-6, the 10th movement on February 7-9, the 1st movement on February 10-12, the 2nd movement on February 13-14, the 7th movement on February 16-20, the 4th movement on February 21-23, and the 5th movement on February 24-25.

Crumb only sent three progress reports to the Stanley Quartet while composing *Black Angels*, all of which are now in the Gilbert Ross Papers in the Bentley Historical Library at the University of Michigan. The first letter to Gilbert Ross is dated January 23, 1970 and included, "I am by now well into the new piece and would imagine that I can wind it up by the end of March. By that date I should be able to send you the performance materials in clean copy."[55] The second, dated March 29, 1970, reads "I finished Quartet on March 13 (Friday 13th!) and have been busy making a clean copy. I should be able to get the scores in the mail by April 10th, allowing time for printing, proof-reading."[56] The final progress report before Crumb sent the scores, from April 15, 1970, reads "The quartet is at the printers, but it will possibly not be ready until next week. Sorry for the added delay. I'll send it off airmail as soon as copies are delivered to me."[57]

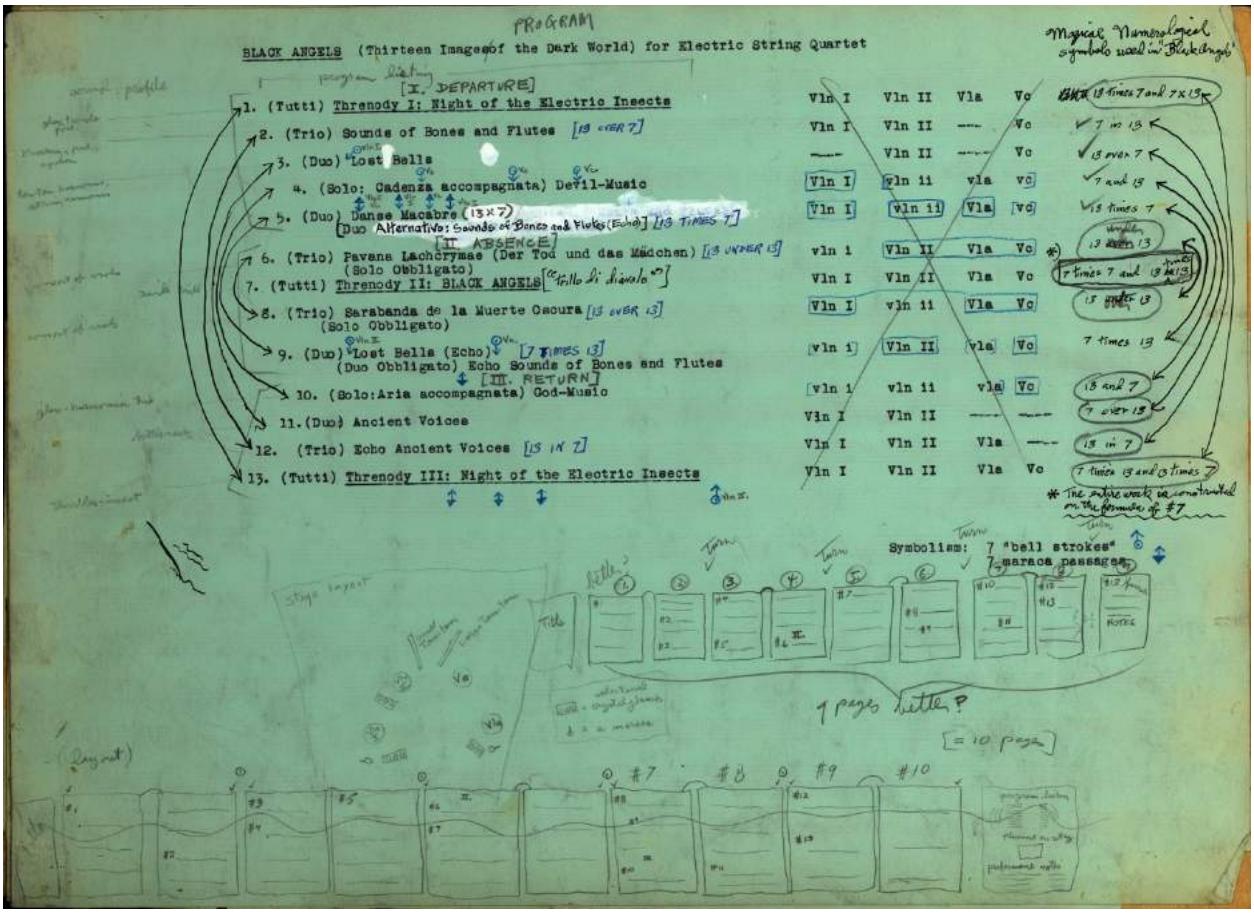
These small updates – that work was well underway on January 23, the piece had been completed on March 13, and Crumb was well into copying on March 29 – clarify some of Crumb's compositional log annotations and his process.

[55] Correspondence from Crumb to Ross 23 January 1970, ML31.C87, Box 12, George Crumb Papers, Library of Congress.
[56] Correspondence from Crumb to Ross 29 March 1970, ML31.C87, Box 12, George Crumb Papers, Library of Congress.
[57] Correspondence from Crumb to Ross 15 April 1970, ML31.C87, Box 12, George Crumb Papers, Library of Congress.

2.2.2 Specific Annotations

I will begin by discussing the later annotations and work backwards. Assuming Crumb is a trustworthy narrator, Draft A had to be complete by March 13 (or soon thereafter) and then used as a reference for making a clean copy (the holograph paste-up). Given the amount of time it likely took Crumb to hand-draw his scores, this timeline is logical. The indications of individual movements in February of 1970, combined with the annotation of "start copying!" on January 17, then imply that Crumb was filling in each movement on the leaves that would turn into Draft A throughout January, February, and early March. Knowing that, significant work would have needed to be completed – or at least drafted in some form – on Draft A before January 17.

The four other annotations in late December and early January also all relate to the form of *Black Angels*; many of them also relate directly to the timeline of Draft A. First, I will examine the two relating to numerology: January 4: "idea for symbolism of numerology" and January 9: "complete numerology idea!" These "numerological mottos" are present almost exclusively in Draft A. On the back cover, shown in Figure 2.4 below, Crumb labeled each movement with its motto. These labels are written in pen, while the movement listings were all typed on a typewriter. Crumb also annotated each movement in the draft itself with its motto in a blue pen; the placement of each of these mottos – squeezed in where they will fit compared to the other text on the page – implies they were written after the titles and some of the other items on the page. An annotation on page 1 of Draft A in pencil reading "[build in magical numerology]" further implies that the numerology was a later addition, after many other formal decisions had been made.



[I. DEPARTURE]

1. (Tutti) Threnody I: Night of the Electric Insects — 13 times 7 and 7 times 13
2. (Trio) Sounds of Bones and Flutes — 7 in 13
3. (Duo) Lost Bells — 13 over 7
4. (Solo: Cadenza accompagnata) Devil-music — 7 and 13
5. (Duo) Danse Macabre — 13 times 7
[II. ABSENCE]
6. (Trio) Pavana Lachrymae (Der Tod und das Mädchen) — 13 ~~over~~ under 13
7. (Tutti) Threnody II: BLACK ANGELS! — 7 times 7 and 13 ~~in~~ times 13
8. (Trio) Sarabanda de la Muerte Oscura (Solo Obbligato) — 7 ~~under~~ over 13
9. (Duo) Lost Bells (Echo) (Duo Obbligato) Echo Sounds of Bones and Flutes — 7 times 13
[III. RETURN]
10. (Solo: Aria accompagnata) God-music (solo) — 13 and 7
11. (Duo) Ancient Voices — 13 and 7
12. (Trio) Ancient Voices (Echo) (trio) — 7 over 13
13. (Tutti) Threnody III: Night of the Electric Insects — 7 times 13 and 13 times 7

Figure 2.4 The back cover of Draft A, showing the addition of the "magical numerological mottoes" for each movement, with a transcription of the material relating to these mottoes

Another late addition to the formal design of *Black Angels* occurred on January 8; on that day, Crumb wrote "Departure Absence Return" on the compositional log. These larger groupings of movements, borrowed from Beethoven's *Les Adieux* sonata (Piano Sonata No. 26 in E-flat Major, Op. 81a) appear in two different form diagrams: the back cover of Draft A shown in Figure 2.4 above, and another typewritten diagram that was possibly intended to be used in Draft A, shown in Figure 2.5 below. In both diagrams, the three groupings are handwritten, raising questions of timeline – if Crumb began to work out the numerological mottoes on January 4, which are not in the diagram shown in Figure 2.5, then why would he annotate it four days later with the movement groupings? It is impossible to say for sure, but the abundance of writing and erasures on the first page of Draft A about the numerological mottoes invites the possibility that Crumb used that leaf to work out the idea before later adding it to the formal diagram. It is possible that Crumb was working with multiple form sketches simultaneously as he worked out the many aspects of the piece.

The first annotation at this stage of composition – "Gong – maracas idea" on December 22 – could relate to material the upper right corner of the leaf shown in Figure 2.6. Having previously decided that the work would include references to the Devil/God paradigm, Crumb added in percussion instruments played by the quartet, writing: "bell – symbol of Good (seven times) / maracas – symbol of Evil (seven times)." One of the two form sketches on this page includes annotations indicating where these symbolic instruments might occur. In sketches for other works, Crumb often used squares and circles with arrows as indications in formal diagrams to notate where repeated effects would occur or where key moments and movements were, which he would often refer to as "buttress points." This notation is seen throughout many of the form sketches, as well. The chronology of the material on this leaf is difficult to pin down when

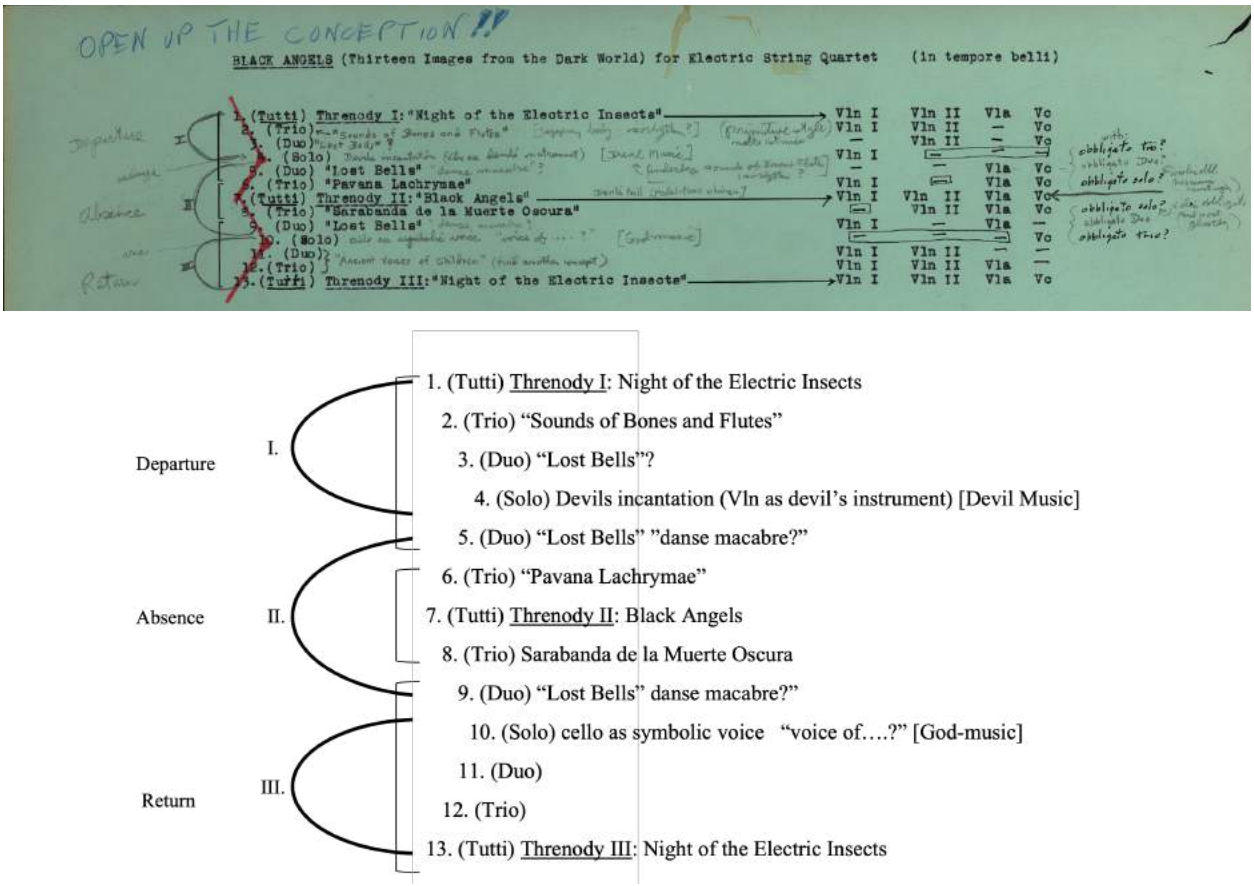


Figure 2.5 The top portion of a leaf possibly intended for Draft A, showing Crumb grouping the movements into larger sections, with a transcription of the leftmost portion of the sketch

considered with the leaf in Figure 2.5 above. The bell and maraca indications in Figure 2.6 points towards this sketch being from December 22, other material on the page shows Crumb working out problems first marked in Figure 2.5. Specifically, the phase "open up conception: - ideas" is a reference to Crumb's all capital exclamation "OPEN UP CONCEPTION!!" in Figure 2.5. While we know that Crumb was using that leaf at least through January 8, the connection between the two leaves implies that Crumb may have consistently working with multiple organizations of movements on many of these leaves concurrently.

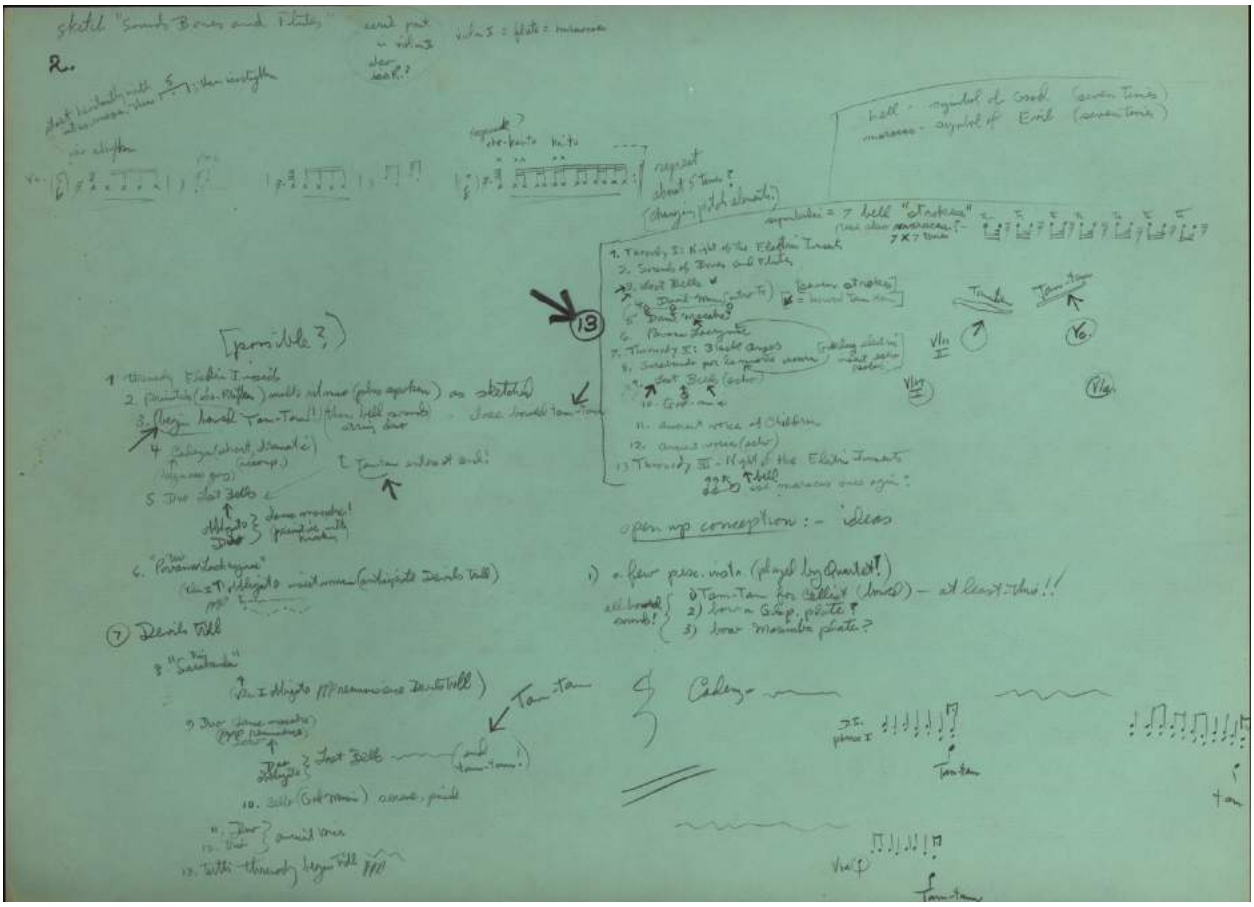


Figure 2.6 A leaf showing two form sketches as well as sketches for the second movement, "Sounds of Bones and Flutes." Notice the indications "bell – symbol of Good (seven times)" and "maracas – symbol of Evil (seven times)" in the upper left corner.

The final annotations left to discuss are the first: "(type-setting)" and "(typeset, format)" on October 10 and 11, respectively. The meaning of "typeset" is unclear here, as typesetting is typically a process done at the completion of a work to prepare a score for publication. (As we saw in his letter to Gilbert Ross, Crumb refers to that process as making a "clean copy."[58]) According to the compositional log, Crumb also completed this "typeset" work on December 19, 1969 for *Vox Balaenae* and did "typeset-format" work on *Ancient Voices of Children* the two days prior. Unfortunately, Crumb did not mark "typeset" on any days attributed to *Night of the Four Moons*, the sketches from which were more meticulously dated.

[58] Correspondence from Crumb to Ross 29 March 1970, ML31.C87, Box 12, George Crumb Papers, Library of Congress.

A few possibilities arise for what Crumb meant by "typeset." The first to come to mind is that he copied out text that was an inspiration for the work or, in the case of a vocal work, he copied out the texts he had decided to use as source material. This seems unlikely; the compositional log has a record of Crumb copying the text for *Ancient Voices of Children* on December 19, simply labeled as "[copy text]." What step of Crumb's process would be significant enough for him to consistently record, would take significant time to complete – seven hours for *Ancient Voices of Children*, one and a half hours for *Vox Balaenae*, and 8 hours for *Black Angels* – and would occur early in his process for each of these three pieces?

I believe Crumb's "typesetting" is what I referred to as the first stage of creating Draft A – laying out the movement titles and other info spatially on many sheets of paper. Logically, it fits the bill: anything at that stage of the process would not include many specifics outside of instrumentation and form (or at least a draft of the form!). A document created that early on in the process would not be for public consumption; time spent creating anything would be done because the result is useful as a resource or reference throughout the process (such as copying the text for a vocal work). It is entirely possible that this term refers to documents that no longer exist. With the evidence currently at our disposal, however, the creation of the first stage of this document is the most likely contender.

In reviewing the compositional log for *Black Angels*, we can again see Draft A as an everchanging document. It was likely part of Crumb's process from almost the very beginning, empty measured space to be filled in. The way we often imagine and discuss the compositional process is as sketches and drafts scattered on separate documents, eventually being copied and combined together. For Crumb, this was still true, but Draft A is a physical embodiment of that process – a draft that starts empty and is gradually filled in, changed, replaced, torn apart, and

edited into a cogent whole. When seen in conjunction with the compositional log, Draft A and its discards becomes a record of the gradual addition of large-scale ideas to the work.

Chapter 3 The Stanley Quartet and the Premiere of *Black Angels*

"A contact mic and the guitar amplifiers…I knew just would sound like crap."[59]

In this chapter, I discuss the period between the delivery of the scores of *Black Angels* to the Stanley Quartet until the premiere and immediately following. I do so in two parts. First, I review the Stanley Quartet's preparations for the premiere. These preparations, overlapping with an unrelated change in the personnel of the quartet, include communication with Crumb about the work as well as a collaboration with Henry Root, the Director of Electronics and Recordings at the University of Michigan School of Music. The premiere of *Black Angels* was the debut of Root's "Crumb Boxes," an amplification system designed in collaboration with Thomas Munsell and built in conjunction with the University's carpentry shop and physics instrument shop. In the second half of this chapter, I discuss the premiere performance and the discovery of a recording of the premiere. Henry Root, in addition to designing the "Crumb Boxes," was also the recording engineer for the premiere performance and a recording session completed the morning of. The tapes from that day were edited by Root in January 1971, after which they were shelved until rediscovered as part of this research. To close, I examine the public's response to the work, the possible ways the work disseminated from the concert in Ann Arbor, and the continued debate about performance practice that ensued from this performance.

[59] Author's interview with Henry Root, Ann Arbor, MI, 10 April 2019. See Appendix C.

3.1 Preparation for the Premiere

The Stanley Quartet received the scores for *Black Angels* on April 22, 1970. Gilbert Ross, the first violinist of the ensemble, wrote to Crumb to confirm the receipt two days following, mentioning that they had not had time to review the work in detail yet and wouldn't until early May. However, Ross did have one question that needed a more immediate answer:

> Meanwhile, I will ask one question right now: exactly what do you envisage by 'Electric?' I gather each player will have a speaker. But just how do you want the instrument rigged? Do let me have an answer to this question promptly.[60]

This was a fair question. The Stanley Quartet had received minimal information about the new work, except that it would include "some new sounds which have never before been produced by a string quartet."[61] Crumb's original explanation was en route to Ross when Ross sent that letter, "For the 'electric' effect I had in mind good-quality contact mikes (not the cheaper clip-on variety, which might scratch instruments) which can be securely attached to body of instrument." In a letter dated May 2 responding to Gilbert Ross's question, Crumb explained further:

> For the "electric-quartet" effect I had in mind four contact mikes which would be affixed to belly of four instruments. These could be attached with a little masking tape and will not at all harm finish of instruments. Two stereo amplifiers would be necessary: The 2 violins would run into 2 channels of one amplifier and Vla. & Vc. likewise into other amplifier. Four speakers could be placed approx. as in diagram in score. I had in mind a constant setting of amplifier "gain" – this would be a median setting which would enhance all delicate music but would not overload loud playing. There should be no necessity for manipulation of volume during performance. I recently heard performance of work of mine involving "electric cello" and the results were very beautiful.[62]

[60] Correspondence from Ross to Crumb, 24 April 1970, ML31.C87, Box 12, George Crumb Papers.
[61] Correspondence from Crumb to Ross 23 January 1970, 45378 Aa 2, Box 2, Gilbert Ross Papers.
[62] Correspondence from Crumb to Ross 2 May 1970, 45378 Aa 2, Box 2, Gilbert Ross Papers.

Crumb previously used this method of amplification in *Night of Four Moons*, which he wrote immediately preceding *Black Angels*. Before moving on to questions of techniques and stamina, Ross's response on the explanation of amplification was short, "I trust our electronics people will be able to provide just what you have in mind and have indicated to me."[63]

These "electronics people" had their work cut out for them. The program from the premiere of *Black Angels*, shown below in Figure 3.1, includes a note below the movement listing: "Amplification equipment designed and constructed by Henry Root and Thomas Munsell, School of Music Electronics and Recording Service." While the idea of a fully amplified string quartet was unusual, if not entirely new, Crumb's instructions were not complex enough to likely designate a listing in the program for the electronics team. To understand what this process entailed, I interviewed Henry Root; the entire text of our interview is included as an Appendix to this dissertation. The information he shared demonstrated that a significant amount of time and money was spent preparing for the premiere of *Black Angels*.

In 1970, Root was the Director of Electronics and Recording at the School of Music at the University of Michigan; his duties included everything from electronic music, recordings, and keeping the sound systems in the various classrooms running. As part of this role, Root was involved with the Contemporary Directions Ensemble (CDE, the new music ensemble at U-M) and director George Wilson, and thus was involved in realizing the technical requirements of the 1970 Festival of Contemporary Music, which included the premiere of *Black Angels*.

Root, with his colleague Thomas Munsell, designed and built an elaborate amplification system that would not only be used for the premiere of *Black Angels*, but was subsequently used by various ensembles and presenters at the School of Music. These so-called "Crumb Boxes"

[63] Correspondence from Ross to Crumb, 6 May 1970, ML31.C87, Box 12, George Crumb Papers.

were built both for high-quality amplification and for visual aesthetics, as Root and Munsell worked with colleagues to build custom casings and panels for the setup. Root spoke at length about the design of this system and his goals in building it:

> Initially, George [Wilson] had just thought of using regular guitar amplifiers. Back then, guitar amplifiers were high school guitar amplifiers. There wasn't much fidelity there at all. George actually wanted the sound of the bow against the strings to be amplified and be part of the music. I don't care how much you pay for it, you're not gonna do that with a Gibson guitar amplifier.[64]

Crumb had specifically requested the sound of the quartet not be altered in the performance notes preceding the score. "The player should find the best position for the microphone to avoid distortion of the tone." Root knew that following the advice of the composer, however, would lead to distortion in the process of amplification – in his words, "a contact mic and guitar amplifiers; I knew it just would sound like crap."[65] Root designed a three-pronged approach to the ensure the highest fidelity possible using the technology available in 1970.

First, KLH Model 6s, high-quality bookshelf speakers, were used. The KLH Model 6s were expensive solid-state operational amplifiers, as opposed to tube amplifiers used by most guitarists at that time. Although they were of a high grade, these speakers did not have a ton of power; Root mentioned being able to use a smaller, 100-watt power amplifier because of the smaller size of the KLH speakers.

Second, instead of using basic contact microphones, the university purchased four FRAP piezoelectric pickups. FRAP, which stood for "flat response audio pickup," was founded just a year prior in 1969 by Arnie Lazarus, who invented and patented the three-dimensional piezo

[64] Author's interview with Henry Root.
[65] Ibid.

pickup the company produced. The FRAP pickups had three piezo pickups at right angles to each other (one on the X-axis, one on the Y-axis, and a third on the Z-axis).[66] Lazarus described them, in comparison to competitors, as a "space-age piezoelectric pickup."[67] The design transmitted sound energy from three dimensions, as opposed to one or two, leading to a higher fidelity of sound and greater dynamic range. The FRAPs were attached to the bridge of each instrument using beeswax, but Root told me the placement was difficult: "…each one was different. I mean even the two violins that the piece had was different."

Third, in collaboration with the University's plant department's carpentry shop and the physics instrument shop, Henry Root designed four "Crumb Boxes," which sat on top of the KLH speakers. These boxes each included a parametric equalizer, a 100-watt power amplifier, and a power supply all purchased from Op Amp Labs as well as a pre-amp. Thomas Munsell, Root's assistant, fabricated the electronic components. These components were then placed into boxes built by the university's carpentry shop, which were measured to fit exactly on top of and stained to match the color of the KLH Model 6s. Those boxes were finished with custom front panels built by the university's physics instrument shop. As Root recalled, "[They] were engraved and it had a little dial. I think it might have even said Crumb Box on it."[68]

Creating this amplification system was not simple, nor was it cheap. The FRAP pickups, according to Root's memory, cost $250 apiece.[69] In comparison, University of Michigan paid Crumb $1,000 to compose the piece. Although Root doesn't remember the source of the funding for purchasing this equipment, he recalled, "Whether it came from the School of Music or not, there was a budget. […] It could have cost as much as we needed." These Crumb Boxes were

[66] "Arnie Lazarus," National Association of Music Merchants Oral History Project, 7 July 2013, accessed 1 June 2023, https://www.namm.org/library/oral-history/arnie-lazarus.
[67] Ibid.
[68] Author's interview with Henry Root.
[69] Author's interview with Henry Root.

kept and used by U-M for many years. Root left the University in the late 1970s, at which point the Contemporary Directions Ensemble still used them regularly. These boxes have since been discarded.[70]

All of this behind-the-scenes preparation happened without much involvement from the Stanley Quartet:

> They weren't really involved in the design. I mean, they just ... Since they were carrying full loads of teaching- You know, getting them to rehearse was probably all George Wilson could do here. So, they weren't involved, and they... I knew them all. So they kind of, they trusted me. It wasn't like somebody walking in.71

The quartet had plenty to work on in the summer preceding the premiere of *Black Angels*, as well as preparation for the work's debut. The premiere of *Black Angels* was supposed to be in the summer of 1970, but preparations for the complete cycle of Beethoven string quartets, as well as the challenge of programming *Black Angels* alongside traditional quartets, prevented the ensemble from preparing it in time for the planned August premiere. Gilbert Ross, first violinist of the quartet, laid this out for Crumb in a letter:

> "In studying your work the Quartet felt that a regular string quartet program (Mozart and Beethoven) would hardly be a suitable setting for the Crumb piece, with its special problems of staging, and that a program of the Contemporary Festival would provide a more appropriate occasion for launching the new work."[72]

As mentioned in a previous chapter, this change in premiere date, to the opening concert of the Festival of Contemporary Music in October, led to a change in personnel for the performance. Gilbert Ross retired at the end of the ensemble's summer season and was replaced by Edwin

[70] Email from Roger Arnett to Joshua DeVries, April 23, 2019.
[71] Author's interview with Henry Root.
[72] Correspondence from Ross to Crumb, 16 June 1970, ML31.C87, Box 12, George Crumb Papers.

Grzesnikowski. In shifting the premiere to October, Ross forfeited premiering the commission that he organized, noting to Crumb in that same letter, "I hope that you will understand my personal regret in not participating in the first performance of your work." Although he was not able to attend the performance due to a trip to Africa during that time, he was a great admirer and champion of the work he commissioned, however – several letters he sent to Crumb in the 1980s mention presentations he gave in which he discussed the New York String Quartet recording (CRI SD 283).

This shift in ensemble members resulted in a significant gap in the archival materials available. Gilbert Ross kept meticulous records and donated a significant amount of correspondence and other material to the University of Michigan after his retirement. However, materials related to the ensemble after Ross's final retirement from the university and quartet in August of 1970 are missing. It isn't possible to know any details about the Stanley Quartet's exact preparations for the premiere, as there is no record I have found of rehearsals or run-throughs with the composer.

Correspondence from before the change in date, however, do reveal what the quartet had begun working on, as well as edits to the technical execution of the piece after discussion with the Stanley Quartet. While many of these questions came from the ensemble, Crumb initiated some of these explorations regarding the practicality of certain techniques and passages. Two passages were especially problematic: the coordination of playing notes pizzicato while also shaking a maraca, and the realization of the thimble-music at the end of the final *Sarabanda*.

The maraca in question is used in the fourth movement and the duo alternativo of the fifth movement; in the passage, the violinist originally had to pluck notes with their right hand while holding a maraca in that same hand. The intent was for the maraca to shake every time a note

was plucked, but that proved to be logistically difficult; in his letters on May 2 and May 10, 1970, Crumb approved a change to a hammered-on "percussive left-hand attack" instead of traditional pizzicato notes.[73]

The thimble music in the thirteenth movement, for two violins and viola, is intended to produce two simultaneous, but distinct, timbres. The first is a metallic sound created by the thimbles constantly tapping the string; the player places thimbles on two fingers of their right hand and trills between them while moving their hand back and forth between the end of the fingerboard and the left hand. The left hand fingers the string normally, and, when done according to Crumb's instructions, a faint echo of the pitches held down by the left hand is present in addition to the timbre. Ross requested more of an explanation of this passage from Crumb, "You specify that the thimble tremolo, sempre glissando, is to be played on two open strings. How do you get a glissando out of that?"[74] Although a more thorough explanation of the different roles played by the right and left hand clarified this technique for Ross, he was not alone in struggling with this passage. In one of my interviews with Crumb, he highlighted how difficult quartets found this movement, while praising the Miró Quartet for their success with it:

> Some quartets it just doesn't work! You wonder what they're doing up there and all you're getting is a bunch of clicks. But the Miró, you hear the harmony of the earlier section coming out. You hear two events. You hear the little glissando over the top of the string, and then you hear the harmonies come out. They did that better than anybody.[75]

In addition to these two technical issues, the Stanley Quartet worked on gathering the necessary extra equipment to perform the work. As Ross mentioned in a letter on May 27, 1970, "Have the thimbles and have had made the two brass rods according to your specifications. We

[73] Correspondence from Crumb to Ross, 2 May 1970 and 10 May 1970, 45378 Aa 2, Box 2, Gilbert Ross Papers.
[74] Correspondence from Ross to Crumb, 6 Ma 1970, ML31.C87, Box 12, George Crumb Papers.
[75] Author's interview with George Crumb (see Appendix A).

can get the maracas right in town and we are checking around on the tam-tams." Between assembling the necessary objects, having brass rods manufactured, and building the Crumb Boxes, the preparations for the premiere of *Black Angels* was a significant group effort throughout the summer and early autumn of 1970.

3.2 The Premiere: Reception, Recording, and Aftermath

The Stanley Quartet premiered George *Black Angels* on October 23, 1970 in Rackham Lecture Hall on the opening concert of the 1970 Festival of Contemporary Music at the University of Michigan. The return of Crumb – a Michigan alumnus – after his recent 1968 Pulitzer Prize award and other professional successes was a highlight of the festival. Gilbert Ross mentioned the Festival Committee's excitement over the premiere in a letter to Crumb earlier that summer:

> Several months ago, when the Festival Committee learned that we were expecting delivery of your work, the Committee expressed the hope that the new work could be given its first performance on one of the Festival programs. To their great disappointment, the Stanley Quartet indicated that the premiere would be scheduled for the Quartet's 1970 summer series. In view of this circumstance, the Festival Committee asked that the new work be repeated at one of the Festival concerts. The committee is now overjoyed with the change that has been made.[76]

The 1970 Festival was a series of three concerts including a guest residency by Alberto Ginastera and performances by most of the faculty and student ensembles at the university. The opening concert included *Black Angels* and performances of works by Jacob Druckman, Gregory Kosteck, Ross Lee Finney, and Peter Phillips. The program for the concert is reproduced in Figure 3.1 below. This concert likely had a different audience than would have been present at

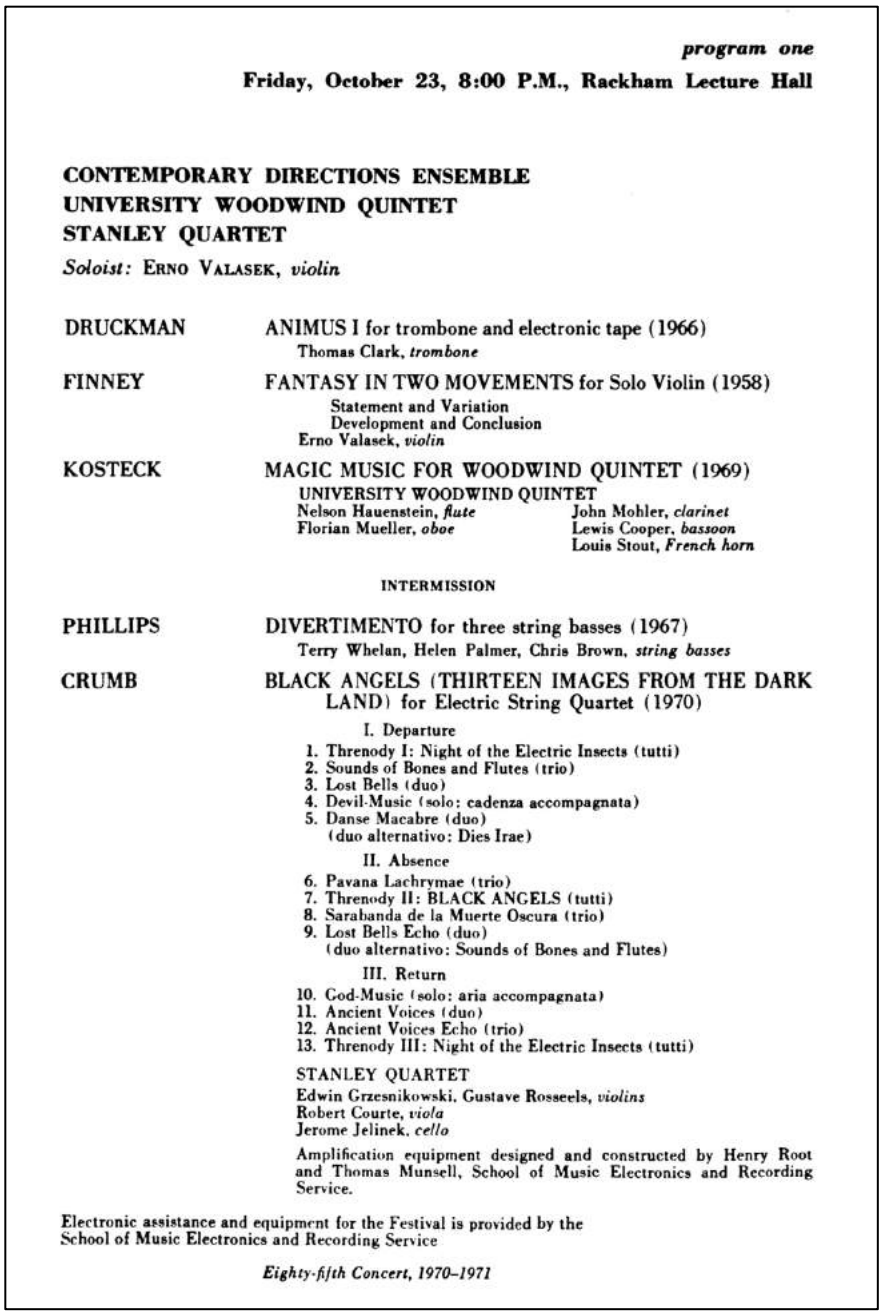
[76] Correspondence from Ross to Crumb, 16 June 1970, ML31.C87, Box 12, George Crumb Papers.

the Stanley Quartet's summer concert series; many students are in town during the school year in Ann Arbor as opposed to the summer and the Festival attracted people from outside of Ann Arbor with an interest in contemporary music. As an example, Donald Wilson remembered bringing, along with his colleague Burton Beerman, the composition studio from Bowling Green State University to the performance.[77]

This concert was the only time the Stanley Quartet performed *Black Angels,* at least partially due to the ensemble's gradual disbandment mentioned in the previous chapter. This performance was also unique for the ensemble in that they asked Crumb to conduct, in order to help them get through the work successfully. As Crumb remembered:

> Well you've probably heard the stories, but I conducted the premiere! I was asked to conduct because, they were wonderful musicians the Stanley players, but they opened the score and couldn't believe what they were seeing. They had no sense of how to keep it together. They asked me to conduct! I felt so silly, up there conducting a string quartet. I'm not a conductor, anyway. But it helped, they thought, to give them the basic tempos and to keep them together. With all those glissandos it's easy to lose your sense of where the beat is![78]

[77] Donald Wilson recalled this to me in a conversation on April 18, 2019. A letter from Wilson to Crumb in the Library of Congress dated November 19, 1970 appears to confirm this: "Thanks very much for your note of November 7. We all thoroughly enjoyed BLACK ANGELS, and in fact Burton Beerman wants to use it for course material as soon as possible (same students as those who heard it live)."
[78] Author's interview with George Crumb.



program one

Friday, October 23, 8:00 P.M., Rackham Lecture Hall

CONTEMPORARY DIRECTIONS ENSEMBLE
UNIVERSITY WOODWIND QUINTET
STANLEY QUARTET

Soloist: ERNO VALASEK, *violin*

DRUCKMAN — ANIMUS I for trombone and electronic tape (1966)
Thomas Clark, *trombone*

FINNEY — FANTASY IN TWO MOVEMENTS for Solo Violin (1958)
Statement and Variation
Development and Conclusion
Erno Valasek, *violin*

KOSTECK — MAGIC MUSIC FOR WOODWIND QUINTET (1969)
UNIVERSITY WOODWIND QUINTET
Nelson Hauenstein, *flute* — John Mohler, *clarinet*
Florian Mueller, *oboe* — Lewis Cooper, *bassoon*
Louis Stout, *French horn*

INTERMISSION

PHILLIPS — DIVERTIMENTO for three string basses (1967)
Terry Whelan, Helen Palmer, Chris Brown, *string basses*

CRUMB — BLACK ANGELS (THIRTEEN IMAGES FROM THE DARK LAND) for Electric String Quartet (1970)

I. Departure
1. Threnody I: Night of the Electric Insects (tutti)
2. Sounds of Bones and Flutes (trio)
3. Lost Bells (duo)
4. Devil-Music (solo; cadenza accompagnata)
5. Danse Macabre (duo)
(duo alternativo: Dies Irae)

II. Absence
6. Pavana Lachrymae (trio)
7. Threnody II: BLACK ANGELS (tutti)
8. Sarabanda de la Muerte Oscura (trio)
9. Lost Bells Echo (duo)
(duo alternativo: Sounds of Bones and Flutes)

III. Return
10. God-Music (solo: aria accompagnata)
11. Ancient Voices (duo)
12. Ancient Voices Echo (trio)
13. Threnody III: Night of the Electric Insects (tutti)

STANLEY QUARTET
Edwin Grzesnikowski, Gustave Rosseels, *violins*
Robert Courte, *viola*
Jerome Jelinek, *cello*

Amplification equipment designed and constructed by Henry Root and Thomas Munsell, School of Music Electronics and Recording Service.

Electronic assistance and equipment for the Festival is provided by the School of Music Electronics and Recording Service

Eighty-fifth Concert, 1970–1971

Figure 3.1 Program from the premiere performance of *Black Angels*, from the 1970 Contemporary Music Festival at the University of Michigan

Although the Stanley Quartet had a long history of playing contemporary music, they had not attempted any work with the notational or extended technical complexity of *Black Angels*. They also had never been asked to complete so many tasks extraneous to string playing (shouting, bowing tam-tams, etc.) before; without experience in such things, one can imagine it

would be easy to lose your place while simultaneously worrying about string playing, percussion playing, electronics, and speaking/shouting/whistling. The quartet requested Crumb conduct and rehearse with them to work out more of these extra and extended techniques. Despite all of the preparation, nerves abounded for all five performers. Regarding the shouting in the seventh movement, for example, Crumb recalled, "They were a little sweaty for one moment in the piece," as well as his own terror of being on stage, "In fact, I was really scared to death because the idea of conducting a string quartet seemed so monstrous! You're exposed there, you know."[79]

Despite the nerves of the ensemble, post-concert reviews and correspondence all allude a positive response to the performance of *Black Angels*. Henry Root remembered it vividly as well:

> I mean, the audience was just eating it up. You probably heard the, the applause at the end. I mean it wasn't as smattering of twenty people in the audience that was probably two-thirds, three-quarters full. I mean, it holds about eleven hundred. So there were probably, you know, 800-ish, 700 to 800-ish people.[80]

A review in the local student newspaper by Joseph Pehrson includes details of the interaction between the audience and elaborate stage setup after the concert, "Members of the audience were seen exploring the various sound-producing devices on stage."[81] This desire to get to know the work continued after the concert; many people reached out to Crumb requesting permission to get copies of the score. Two of these included Donald Wilson, as previously mentioned, and Norman Fischer, then a student at the Oberlin Conservatory.

Considering these requests, a direct line can be traced from the premiere performance to two other early champions of the work: the Bowling Green String Quartet and the Concord String Quartet. The composition faculty from Bowling Green State University that attended the

[79] Author's interview with George Crumb.
[80] Author's interview with Henry Root.
[81] Joseph Pehrson, "A Little Here...a Little There," *The Michigan Daily*, October 27, 1970.

premiere performance introduced the work to the Bowling Green String Quartet, which requested scores to begin working on it as soon as possible. Wilson wrote, "Burton also suggested that we ask for your permission for the Bowling Green Quartet to start work now on the BLACK ANGELS toward performances of the piece as soon as the Stanley Quartet's option terminates (next fall, I presume). The BG Quartet, [….] has expressed its interest in BLACK ANGELS so this could mean several more performances."[82] The BG Quartet went on to perform the work many times, including the first performance in New York at Lincoln Center. News of that performance made its way back to Gilbert Ross, who reached out to Crumb congratulating him on the "laudatory review" of the work in November of 1971.[83] Norman Fischer also reached to Crumb about getting a copy of the score after hearing about the "success of the work." Fischer would go on to be the founding cellist of the Concord String Quartet, which performed the work many times in the early 1970s and released on the first commercial recordings of the piece.

Post-concert letters also included hints about a recording of the concert. In a letter dated November 3rd, 1970, Jerome Jelinek, the cellist of the Stanley Quartet and Crumb's liaison in the fall of that year, wrote, "I hope you were able to get a good composite tape as a result of our efforts."[84] Less than a week later, David Bates, a former classmate of Crumb's at Michigan, wrote, "I understand you have the tapes of the dress and the performance (or will have them shortly). Is there a chance you will allow Henry Root to sell dubs of the quartet…?"[85] Donald

[82] Correspondence from Donald Wilson to George Crumb, November 19, 1970, ML31.C87, Box 13, Folder 9, George Crumb Papers.
[83] Correspondence from Ross to Crumb, November 16, 1971, ML31.C87, Box 13, Folder 9, George Crumb Papers. Ross is referring to Henahan, "A George Crumb Work Bows, and No Tone is Left Unturned.
[84] Correspondence from Jerome Jelinek to George Crumb, 3 November 1971, ML31.C87, Box 13, Folder 9, George Crumb Papers. Before October 1970, Crumb's liaison in the Stanley Quartet was Gilbert Ross, the first violinist, but Ross retired from the University and the Quartet in August of that year. Official documents in the Gilbert Ross archives at the Bentley Historical Library show a lengthy history of frustration between Ross and administration, so the retirement was not unexpected.
[85] Correspondence from David Bates to George Crumb, 9 November 1971, ML31.C87, Box 13, Folder 9, George Crumb Papers. David Bates was a classmate of Crumb's in the 1950s, completing his M.M. in 1960 and his DMA in 1972 in Ann Arbor. He subsequently began teaching at Fresno State University and won the 1974 Prix de Rome – one of six composition graduates to

Wilson was more official: "I wanted to ask you if you would be willing to sign the enclosed permission for me to purchase one copy of the tape of the Stanley Quartet's performance of BLACK ANGELS for instructional use only."[86]

Naturally, my interest was piqued that a recording of the premiere might exist. I asked Crumb about it, but he was unaware of any tape, having never received nor heard one.[87] I was not confident about its existence until later in my research, when I turned up this letter from Henry Root:

> Terribly sorry it's taken me so long to write you regarding the editing of the recording session tapes of your 'Black Angels' composition, but I simply haven't gotten to it. We have had a great deal of interest n [sic] the piece with many requests for dubs. The Stanley is a little reluctant to release the performance take because of a mistake in one of the movements.[88]

I knew tapes existed of the premiere performance and of a previously-unmentioned recording session. These tapes were eventually located in an off-campus shelving unit in Ann Arbor. Figure 3.2 shows the tape of the concert – although it is not clear from the photo, the reel-to-reel tape was in pristine condition. It is likely that it was dubbed a few times in 1970, shelved, and forgotten about.[89] The Preservation and Conservation Department of the University of Michigan Libraries subsequently offered to have these tapes digitized; luckily, the tapes were in such good

---

earn that award in a fifteen-year span – but, after a short time at the American Academy in Rome, was compelled to return to Fresno where he died of cancer in November 1974. Bates's brief career included the founding of the KB Electronic Music Instrumentation Company, "an enterprise concerned with the development and construction of devices used for electronic music composition." The letter to Crumb is on a letterhead from this company. According to Henry Root, Bates did not have a hand in designing or building the amplification devices for the premiere recording. Given his activity in performing arts technology, he was collegial with Henry Root (and possibly Thomas Munsell), who could have mentioned the recording in passing or in detail.

[86] Correspondence from Donald Wilson to George Crumb, 19 November 1971, ML31.C87, Box 13, Folder 9, George Crumb Papers.

[87] Author's interview with George Crumb.

[88] Correspondence from Henry Root to George Crumb, 14 December 1971, ML31.C87, Box 13, Folder 9, George Crumb Papers.

[89] The tape should have been part of the Stanley Quartet Archive – Gilbert Ross catalogued and donated hundreds of recordings of the Stanley Quartet before he passed away, with the caveat that the University would combine it with the documents already in their possession to form a more substantial collection. This was never done, and the lengthy list of reel-to-reel tapes donated by Ross has, to my knowledge, remained untouched.

condition that they required minimal alteration and survived the process.[90] Henry Root believes he recorded these tapes either with either a AKG C24 or a Neumann SM2 microphone.[91]

Figure 3.2 Reel-to-Reel tape of the first concert of the 1970 Festival of Contemporary Music, October 23, 1970, Rackham Lecture Hall, including the premiere of *Black Angels*

This recording shows many different aspects of the performance, from the audience response, the new challenges the quartet faced in the work, and the successes and limitations of the amplification system. As described to me by Root, the applause at the end of the performance was indeed robust. However, there were moments where the audience didn't seem to know how to react; at the opening of the tenth movement, God-music, a member (or members) of the audience began to laugh before being "shushed" by other concert attendees. At that movement in the work, the violinists and violist set their instruments down – quite noisily, due to the amplification – stand up, and move to a table where they begin bowing crystal glasses. On a visit to Crumb, I played the recording of this performance for him in full. His response mentioning the

[90] The tapes have, presumably, been returned to the remote shelving facility.
[91] Author's interview with Henry Root.

laughter was not out of place, given the general sense in the hall. “It was fun to hear that brings back, good Lord, I can kinda remember the sort of general sense of it, and the giggling at first, you know, about certain things that were going on.”[92] While it is impossible to know what caused the laughter, it is worth noting that a significant portion of the audience at this concert was likely students at the university where the quartet members were seasoned professors; to see them performing in a manner so out of the norm could have been surprising. There are, of course, innumerable other reasons why an audience member might begin laughing in the middle of a concert.

I previously mentioned challenges the Stanley Quartet faced in the performing the work; the extended techniques and inclusion of other instruments created enough logistical and technical difficulties that they asked Crumb to conduct them at the performance. In the recording, some of these effects come through successfully and others were less strong. After listening to the recording, Crumb gave them credit for trying something new:

> Yeah, yeah, certain little passages came through! Normally, what you would expect to, you know, most of the spoken parts, some of that's really shouted, but didn't come out above, you know, a whisper! [laughs] That stuff, that dramatic part of it was not quite there, but that's something you don't have to do playing the C# minor quartet. You don't have to shout numbers! But they made a valiant effort, and, at the time, I thought “geez, this is pretty good.” […] This was kinda of, you know, kinda condensed to a smaller range. I want to say that's nothing against the players! It's dropped in their lap out of nowhere. [93]

[92] Author’s interview with George Crumb.
[93] Author’s interview with George Crumb.

The challenges Crumb gave the quartet certainly were new; while the ensemble had performed a lot of new music and had a longstanding tradition of commissioning works, nothing they previously played required this level of extended techniques.

The final three challenges have to do with the amplification system. From the recording, some of the limitations of the amplification are quite clear. First, despite the best of intentions and large sums of money thrown at this project, amplification technology in 1970 had its thresholds, and the tone of the instruments is distorted in many of the louder moments. This is clearest in the first, fourth, and seventh movements. Second, as mentioned in regard to the audience's laughter, anything involving the string instruments was loudly noticeable because of the contact microphones, including picking up or setting down the instruments, lightly tapping, adjusting a shoulder rest or endpin; it all came through the speakers.

The third challenge relates to the question of what to amplify. The quartet and Henry Root followed Crumb's general instructions to only amplify the string instruments, but there are many other instruments on stage – maracas, crystal glasses, tam-tams, and the human voice – that were not amplified. This created an imbalance in the volume of heavily amplified, "electric" sounding string instruments against the quieter maracas, whispers, tongue clicks, and bowed crystal. Quartets performing *Black* Angels still face decisions about amplification. Crumb's instructions from the printed score are seemingly conflicting (bolded emphasis mine).

> The amplification of the instruments is of critical importance in BLACK ANGELS. Ideally, one should use genuine electric instruments (with a built-in pick-up). Otherwise, fine quality contact microphones can be attached (by rubber bands) to the belly of the instrument. The player should find the best position for the microphone in order **to avoid distortion of the tone**. If the amplifier is equipped with a **reverberation control, this should be set on "high"** to create a more surrealistic effect. **The dynamic level should**

> **also be extremely loud** (for the <u>forte</u> passages) and the level should not be adjusted during the performance.

Crumb instructs performers to avoid distortion of tone, but to include a lot of reverb and a high volume setting. Especially with the technology available in the early 1970s for amplifying string instruments, raising the volume on the equipment to the level Crumb indicated would naturally distort the tone. The reviews of many early performers of the work indicate they dealt with similar challenges and likely followed Crumb's written performance instructions. For instance, a review of the second performance, at Mills College in March of 1971, describes the "big electronic sound of a wired-up quartet."[94] The three following performances, including the New York premiere, were by the Bowling Green String Quartet, who used actual electric instruments made by Barcus Berry.[95] The Concord Quartet, who toured with the piece in the early 70s, used guitar amps and contact mics which were so inconsistent they traveled with two full sets of extras.[96] Norman Fischer, the founding cellist of the Concord Quartet who requested the scores from Crumb immediately following the performance, specifically spoke with Crumb about the issue of volume. In a recent interview, the full text of which is in an Appendix to this dissertation, he recounted a conversation with Crumb after a particularly trying Concord Quartet performance at PepsiCo headquarters.

> I called George. And I said, "George, we're having some issues with the volume on this, and want your advice about what to do. How loud should it actually be?"
>
> He says, "Well, should be pretty loud."
>
> And I said, "Yeah, okay, well, could you help us a little more?"

[94] Arthur Bloomfield, "Absorbing Music Program at Mills," *The San Francisco Examiner*, March 8, 1971.
[95] Lincoln Center and Detroit Chamber series concert programs
[96] Author's interview with Norman Fischer, Houston, TX, 18 February 2017. See Appendix B.

And he says, “Well, I don’t know…think threshold of pain?”[97]

Almost fifty years after the premiere, Crumb still emphasized the dynamics to me in one of our interviews:

> It should be a dramatic work. It should project terror, and hope, and all those basic emotions. There should be something very penetrating about each of the musical gestures. It has to do with tuning, you know, exact tuning. The unusual sounds have to be convincingly done, you know. The dynamics have to be followed. If it's screaming dynamics, you know, it has to come out.[98]

In these same interviews, Crumb maintained that the sound of the quartet should be unaltered. The recording he said is truest to his intentions is the Miro Quartet’s, whom he worked with extensively in the 2003 recording for Bridge Records. Crumb said his goal was to amplify the sound of the ensemble, not alter it – he wanted to expand the string quartet, and did this through several channels, including the addition of percussion instruments and frequent use of the human voice. Amplification was a musical parameter chosen both as part of that goal (to expand the ensemble) and also as a practical necessity: the extended techniques Crumb has the quartet do, such as the thimble music in the final movement, would be imperceptible without the amplification. However, the most significant champion of the work – the Kronos Quartet – attempts to match the earlier sound:

> "In '74 we used mikes from Radio Shack. They were thick and heavy, and their weight on the bridge muted our instruments…We had to play extra loud." And although the Kronos now has the advantage of far more sophisticated amplification, there was something

[97] Author’s interview with Norman Fischer.
[98] Author’s interview with George Crumb.

about that earlier sound that was right for *Angels*. "It was piercing and loud – and brittle," Harrington says. "It was what we wanted and we try to keep it with today's electronics."[99]

This distorted sound, caused by the early technology and conflicting instructions from the composer, eventually became associated with *Black Angels*. Today, quartets even try to replicate a certain level of distortion. These electronically-altered performances represent a specific method of performance practice – quartets attempt to replicate an earlier sound associated with the piece because of its cultural surroundings. The distorted sound, arguably, was widely accepted because of its date of composition and association with the Vietnam War – *Black Angels* fit in well in the years of Hendrix and anti-war protests.

Given the prevalence of two main choices regarding amplification, the choice of how to "electrify" the quartet becomes one of performance practice. Should the timbre of an "electric string quartet" include distortion of tone, reverb, and other effects from amplifiers? Or is the use of amplification just a logistical necessity? There is a certain relationship that can be argued about the distorted timbre given the work's relationship with the Vietnam War – that a violent, distorted, almost painful tone and volume level is somehow "right" for the piece – but that feeling goes against the composer's recent instructions.

Quartets continue to take the choice of amplification as seriously as Henry Root did when his team built the intricate amplification system for the premiere. At that original performance, the response of certain audience members may have been to laugh, but, in the words of Crumb, "But something, in all these years, has been a build up of a performance tradition. The best players, I have noticed, don't take it as a joke."[100]

---

[99] Blomster, Wes. "Kronos Quartet Stages Crumb's 'Black Angels.'" *McClatchy - Tribune*. September 30, 2009.
[100] Author's interview with George Crumb.

Chapter 4 Form and Process

In this chapter, I discuss the form of *Black Angels* in three parts. First, I explain the two different formal structures, symmetrical and what I refer to as the "parable structure," in *Black Angels* and their realization in the published work; I also include a brief literature review covering an analysis by Blair Johnston. Next, I review the development of those forms throughout the compositional process through the study of five different form sketches, showing a relationship between the two forms rooted in key compositional decisions. In the final section, I discuss the form of *Black Angels* as it relates to war literature, exploring similarities between the structure of the quartet and Paul Fussell's analysis of war memoirs.

4.1 The Form of *Black Angels*

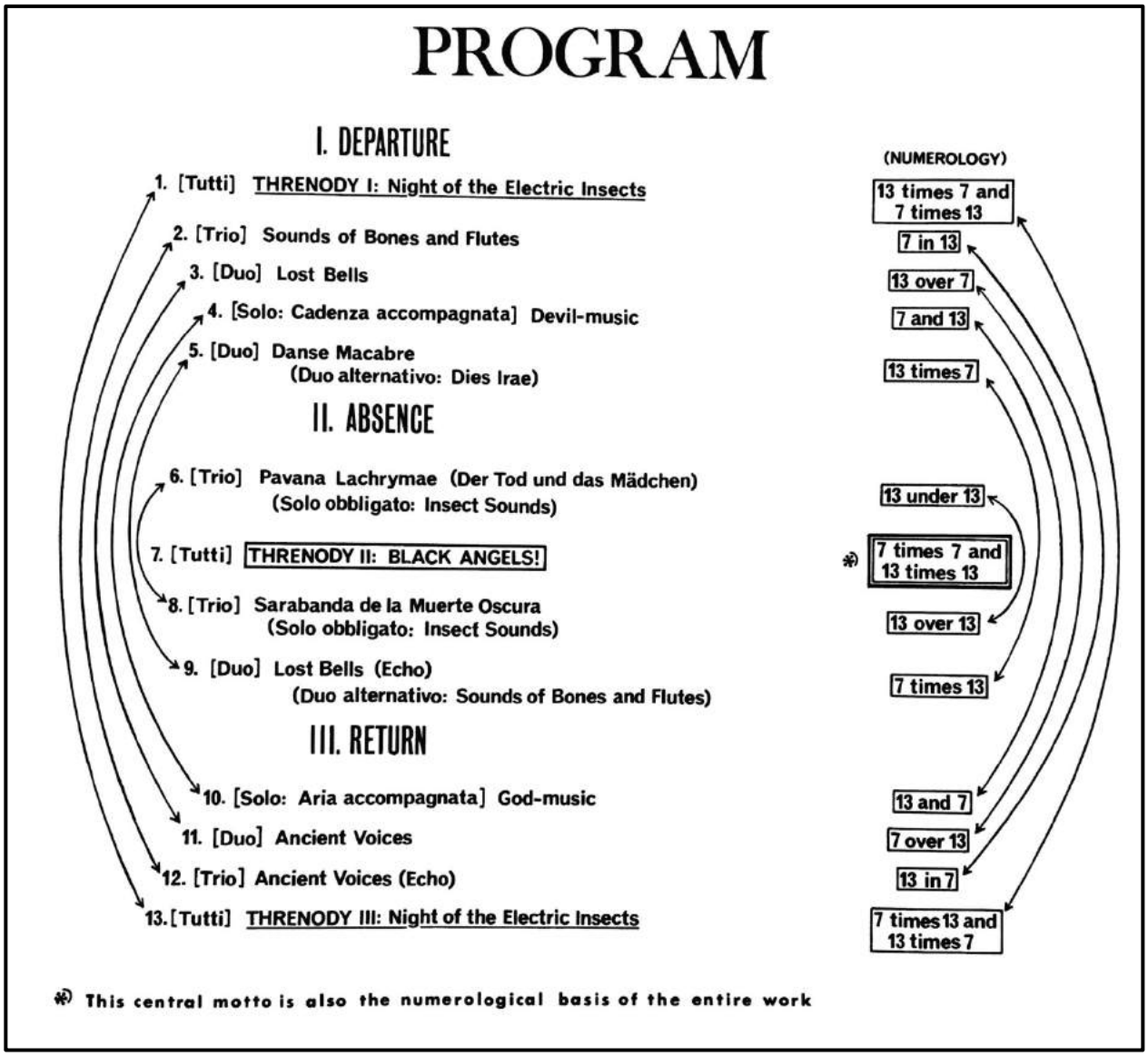


Figure 4.1 The program of *Black Angels* from the published edition

Two formal structures are at play throughout *Black Angels*; the diagram in Figure 4.1, from the published edition of the work, shows both. One structure, indicated on the diagram by the arrows pairing movements, is symmetrical. Crumb has said, "I love palindromes…moving from the center. I do it all the time."[101] The symmetrical, or palindromic, structure is realized by

[101] Author's interview with George Crumb.

the orchestration of each movement and the "magical numerological mottoes" Crumb built into the work. Working from the outer movements in towards the center, symmetrical orchestration is realized in a gradual slimming of the number of instruments, from *tutti* quartet to a solo instrument, and regrowth back to *tutti* in the center movement. (The number of instruments in each movement goes 4 3 2 1 2 3 4 3 2 1 2 3 4.) In each movement, the descriptions "tutti," "trio," "duo," and "solo" describe the general texture, but there are interruptions from other instruments – the two solo movements, four and ten, are marked "Cadenza accompagnata" and "Aria accompagnata," respectively.

In this structure, Threnody I and Threnody III, both titled "Night of the Electric Insects," are paired: the instrumentation is identical as both movements are played by the whole quartet ("tutti") and the numerological mottoes are inverted; the first threnody is built on 13 times 7 and 7 times 13, the third on 7 times 13 and 13 times 7. The fifth movement "Danse Macabre" and the ninth movement "Lost Bells (Echo)" are also paired. Both are duets: "Danse Macabre" is for violin II and viola with interjections – the "duo alternativo" – of the *Dies Irae* sequence by the violin I and cello; "Lost Bells (Echo)" is for violin II and cello with a brief duo alternativo by the violin I and viola. The numerological motto is similarly inverted: 13 times 7 in the fifth movement becomes 7 times 13 in the ninth.

The quartet includes six pairings such as this: 1 and 13, 2 and 12, 3 and 11, and so on. The seventh movement, as the center, does not have a symmetrical pair. Crumb uses this movement as a focal point of the work, both numerologically and thematically: it is the titular movement and a footnote instructs that the "central motto" "7 times 7 and 13 times 13" is the numerological basis for the piece. It is worth noting here that these numerological mottoes are

difficult to hear; they are mainly guiding organizational principles. Crumb discussed this in a 2004 interview:

> Yes, this business of 7s and 13s came into the music. I don't remember what they even mean. It was more technical, structural. I got carried away with the Friday the 13th thing. I think it is important in all music [not to reveal too much]. Beethoven doesn't give us all of what's in his mind. There are references to Shakespeare in his letters, but not in the score. Mahler's Third originally had descriptive titles for all of the movements, but he dropped them. Even more abstract music is probably connected with other ideas—poetry, landscapes, and other things. [It's better to] let the listener make the connections.[102]

Because they were integral to the interior structure of each movement, I will discuss these numerological mottoes in detail in the following chapter. However difficult the numerology is to hear, the symmetrical orchestration, in contrast, is easier for the listener to follow.

The second structure governing the quartet's form is indicated by the grouping of movements into 3 sections: Departure, Absence, and Return. Crumb translated and borrowed these titles from Beethoven's *Les Adieux* Piano Sonata, No. 26 in E-flat Major, Op. 81a, the movements of which are titled "*Lebewohl*", "*Abwesenheit*", and "*Wiedersehen.*" Commenting on this structure, Crumb has noted

> *Black Angels* was conceived as a kind of parable on our troubled contemporary world. The work portrays a voyage of the soul. The three stages of this voyage are Departure (fall from grace), Absence (spiritual annihilation) and Return (redemption).[103]

Using this quote as a point of reference, I will refer to this interpretation of the quartet's form as the "parable structure." In comparison to the symmetrical structure, which Crumb described as

[102] Burwasser, Peter. 2004. "Symphony of Destruction" (interview with George Crumb). *Philadelphia City Paper*, March 18-24.
[103] George Crumb, *George Crumb/Charles Jones, Black Angels for Electric String Quartet/String Quartet No. 6, Sonatina*, New York String Quartet, CRI SD 283, 1972, 33⅓ rpm.

moving out from the center, the parable structure moves from the first movement to the last. The soul falls from grace throughout Departure, which culminates in "Devil-music" and "Danse Macabre," before the spiritual annihilation of three movements directly dealing with death: a Pavana Lachrymae quoting Schubert's "Death and the Maiden," a violent threnody bearing the title of the quartet, and a "Sarabande of the Dark Death." Redemption begins with "God-music," and the work culminates in a return to the beginning, an echo of the insect music from the first threnody. When considered chronologically, much of the work contains echoes of previous movements: "insect sounds" appear as obbligati in the sixth and eighth movements, the second movement is quoted in the duo alternativo in the ninth, and the twelfth movement is an echo of the eleventh.

At first glance, the parable and symmetrical structures seem to have minimal connection. One is realized in the instrumentation of the movements and vague, difficult-to-hear numerology, while the other is continuous and easier to track. Blair Johnston tackled this incongruence between the two forms in his article "Between Romanticism and Modernism and Postmodernism: George Crumb's *Black Angels*."[104] Johnston considered *Black Angels* "against the backdrop of what Warren Darcy has called 'the drive toward a metaphysical *Erlösung*'—the 'victory-through struggle paradigm"…where an 'initially troubled beginning' is ultimately redeemed or, in some cases, dramatically fails to be redeemed."[105] Using thorough pitch set analysis and citing concepts of postmodern musical collage, Johnston puts forward movement 10, "God-music," as the teleological culmination of the work. As Johnston puts it, "if the title of the first movement in the third stage ("God-music") does not suggest Hepokoski's fuller or

[104] Johnston, "Between Modernism…"
[105] Johnston, "Between Modernism…," 1 (quoting Darcy, 2001, 49-50).

higher condition, it would be difficult to imagine a title that would."[106] Notably, though, the tenth movement is not the final word in the piece, which present an issue: in a goal-oriented trajectory, what do we make of music that occurs after the goal has been achieved? Johnston discusses this both in terms of the logistical necessities the combination of symmetrical and teleological forms produces as well as in relation to the programmatic progression in the work:

> The quartet ends with neither a climax (this occurs with "Threnody II" at the midpoint, in accordance with the palindrome) nor a culmination (this occurs with "God-music" about two-thirds of the way in, in accordance with the program), but rather with a series of movements that seem even more shadowy than their symmetrical partners at the beginning of the quartet. In a hypothetical version of *Black Angels* that had no numerological/palindromic framework but only the program to guide it, these final movements would be nonessential. They might be replaced by a bona fide coda, or the work might end on its revelatory highpoint. But Crumb's design is numerological and it is palindromic. It needs thirteen movements, not ten, and, upon consideration, "God-music" is in its most logical location. It is not the last movement because "Devil-music" is not first. "Devil-music" is not first but rather fourth because the quartet begins with a tutti movement, not a solo movement. […] The quartet must begin with a tutti movement or the central, climactic "Threnody II" would not be tutti, and there would be three solo movements, not two, undermining the essential God-Devil polarity. Placing "God-music" tenth solves the puzzle created by these interlocking conditions; but it also leaves a considerable musical space after the culminating point—and a space that must be filled by music that, however changed, recalls the music in the opening movements. Revelation in *Black Angels* therefore cannot last, and the telos breaks down. It is a goal, but, unlike Hepokoski's, not final.[107]

[106] Johnston, "Between Modernism…," 3.
[107] Johnston, "Between Modernism…," 34.

Johnston's reading is convincing and his analysis is clear when listening to the work. In the following subchapter, I will build upon and augment his argument. I will show the process by which the parable structure (or, as Johnston refers to it, the teleological structure) emerged out of the symmetrical structure. This emergence has two concurrent roots: (1) the development of movements 4 and 10 from a symmetrical pair to diametric opposites; and (2) Crumb's thematic grouping of the center of the work, movements 6, 7, and 8. In tracing this process, I show that a few key decision paved the way for the development of the parable structure at the expense of demoting the symmetrical structure to the background.

4.2 The Development of Form in the Sketching Process

To better understand the two temporal processes – the symmetrical and the unidirectional motion of the parable structure – and how they interact, I will return to Crumb's sketches. About his compositional process, and specifically the process for *Black Angels*, Crumb has said "I sketch a lot…it takes a long time for me to get an idea of the whole structure of a piece. Especially a piece that has so many sections and has those divisions."[108] Indeed, there are at least sixteen extant form sketches for the work. Most of these show variations on and development of a 13-movement symmetrical form.[109] I will not discuss each form sketch; to trace the development of the symmetrical and parable structures in the piece, I will focus on five leaves that demonstrate important stages in the progression to the final form.

Crumb began with a purely palindromic form. The form sketch shown below in Figure 4.2, conveniently labeled "1st sketch" in the upper left-hand corner, shows a form that has many

[108] Author's interview with George Crumb

[109] As much as possible, I have placed these sketches in chronological relationship with each other. This is not always possible, however, as, as discussed previously in regard to Crumb's composition log, it is possible he had several form sketches on hand at any given time.

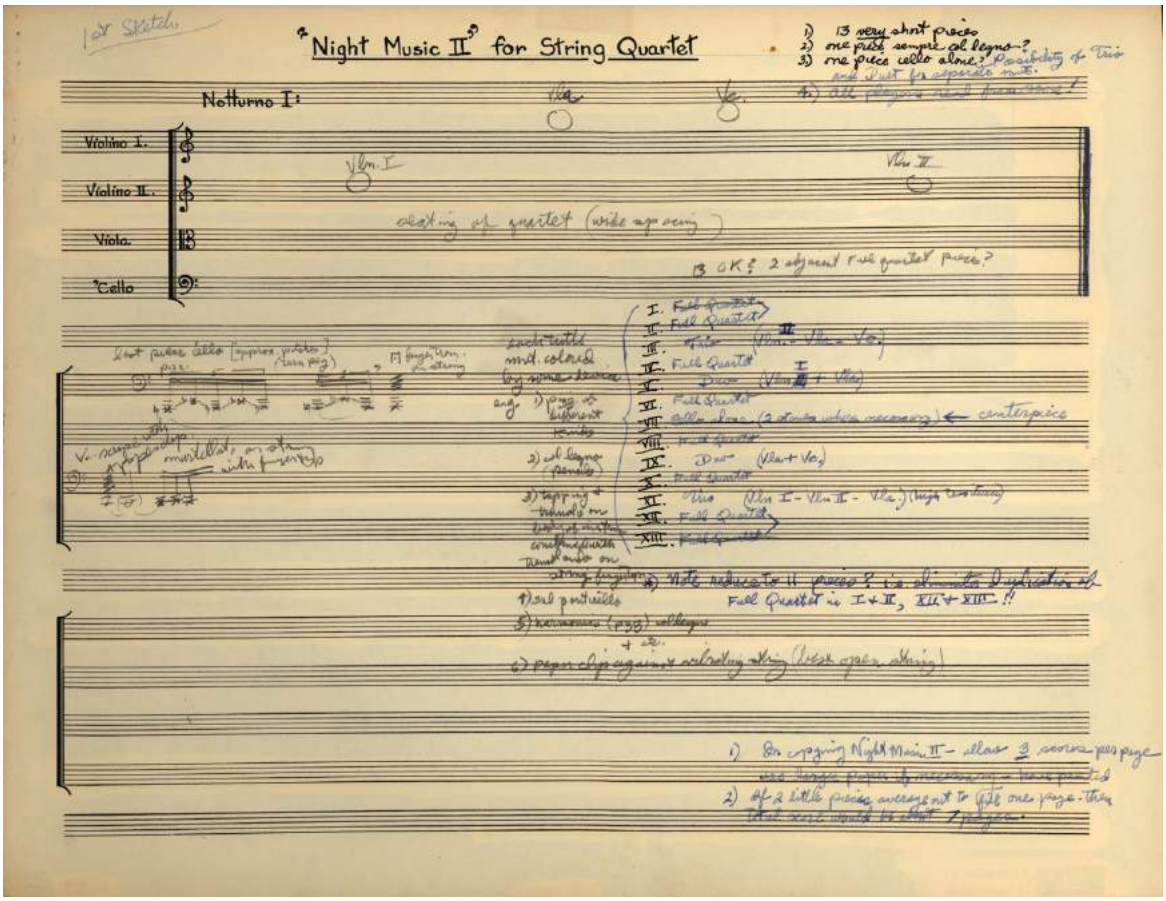
similarities to the final product. Importantly, it is a 13-movement form—according to him, he originally chose 13 movements simply because he had already done an 11-movement form in *Echoes of Time and the River*—and shows movements symmetrically arranged according to orchestration, but in a different manner than the final work.[110] The number of performers gradually steps down from four to one, full quartet to solo cello, and back up again, with tutti movements placed in between each step in the sequence.

Although this orchestration is only tangentially similar to the final program, the placement of the "Cello Alone" movement as the "centerpiece," movement 7, has implications for the remainder of the sketching process. Looking in the upper-right corner of this leaf, Crumb was considering several preliminaries:

1) 13 very short pieces
2) one piece sempre col legno?
3) one piece cello alone?

This list is in the same black pen used to write the preliminary title of the piece "Night Music II," the staff labels/clefs/brackets, and the Roman numerals I-XIII, lending the possibility that these considerations occurred very early in the process. Although Crumb discarded much of the rest of this sketch, his denotation of the cello solo movement as a "centerpiece" gives the concept a structural weight both to the seventh movement and the solo cello that shows throughout many future form sketches.

[110] Gin with George



13 OK? 2 adjacent full quartet pieces?

each title
mvt. colored
by some device
e.g. 1) pizz. of different kinds
2) col legno (penul)
3) tapping + tremolo on body of instrument combined with tremolo also on string finger
4) sul ponticello
5) harmonics (pizz.) col legno + etc.
6) paper clip against vibrating string (best open string)

I. ~~Full Quartet~~
II. Full Quartet
III. Trio (Vln. – Vla – Vc.)
IV. Full Quartet
V. Duo (Vln. ~~II~~ + Vla)
VI. Full Quartet
VII. Cello alone (2 staves where necessary) ← centerpiece
VIII. Full Quartet
IX. Duo (Vla + Vc.)
X. Full Quartet
XI. Trio (Vln I – Vln II – Vla.) (high tessitura)
XII. Full Quartet
XIII. ~~Full Quartet~~

*Note reduce to 11 pieces? i.e. eliminate Indication of Full Quartet in I + II, XII + XIII!!

Figure 4.2 Leaf showing various sketches for *Black Angels,* labeled "1st sketch," with a transcription of the form sketch in the center of the page

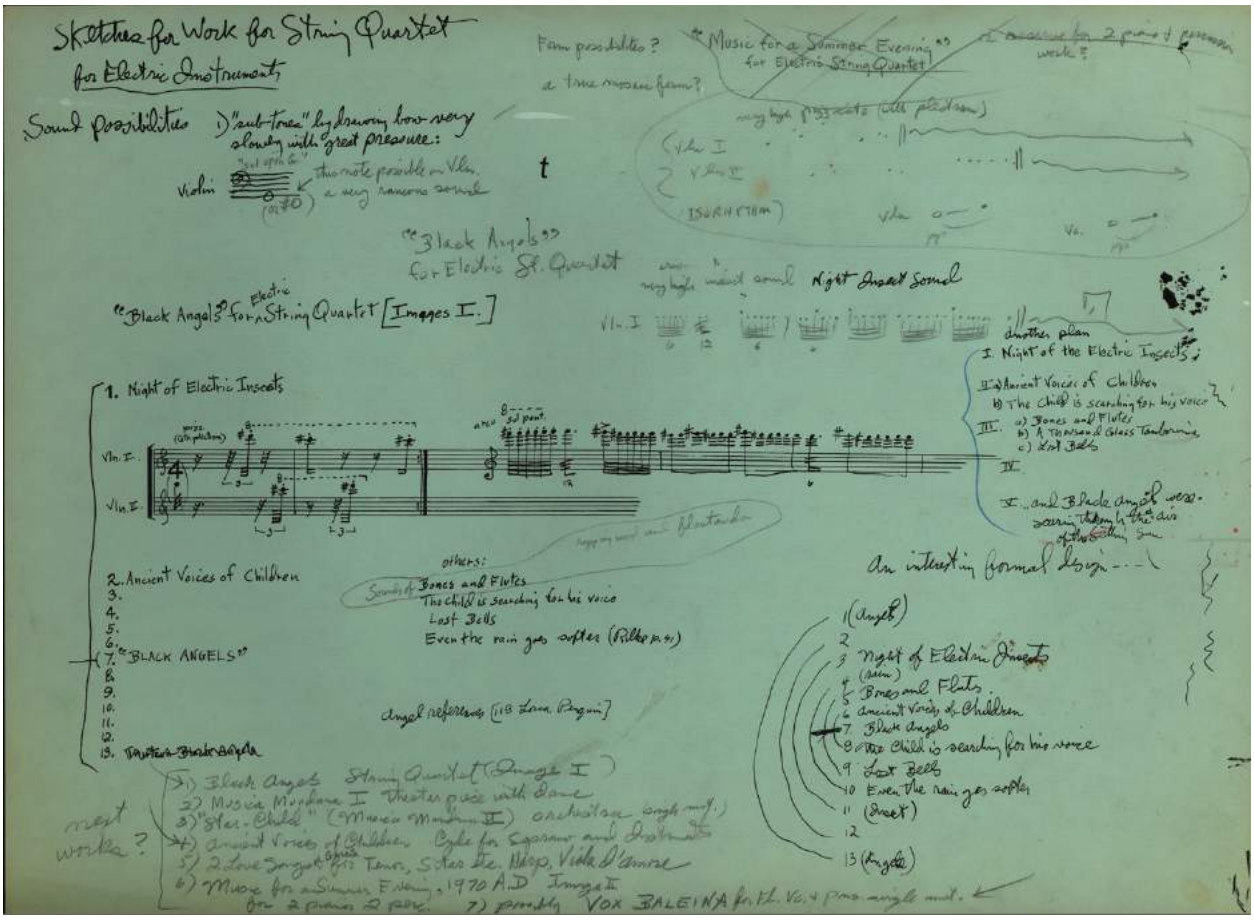


Figure 4.3 Leaf showing various form sketches for *Black Angels*

The leaf shown in Figure 4.3 shows the many different formal possibilities Crumb considered. On this leaf, Crumb further developed the symmetrical form and worked out many movement titles, using those titles to delineate connections between symmetrical pairs of movements and a further connection between movements 1, 7, and 13. I include transcriptions of specific sketches on this leaf later in the text.

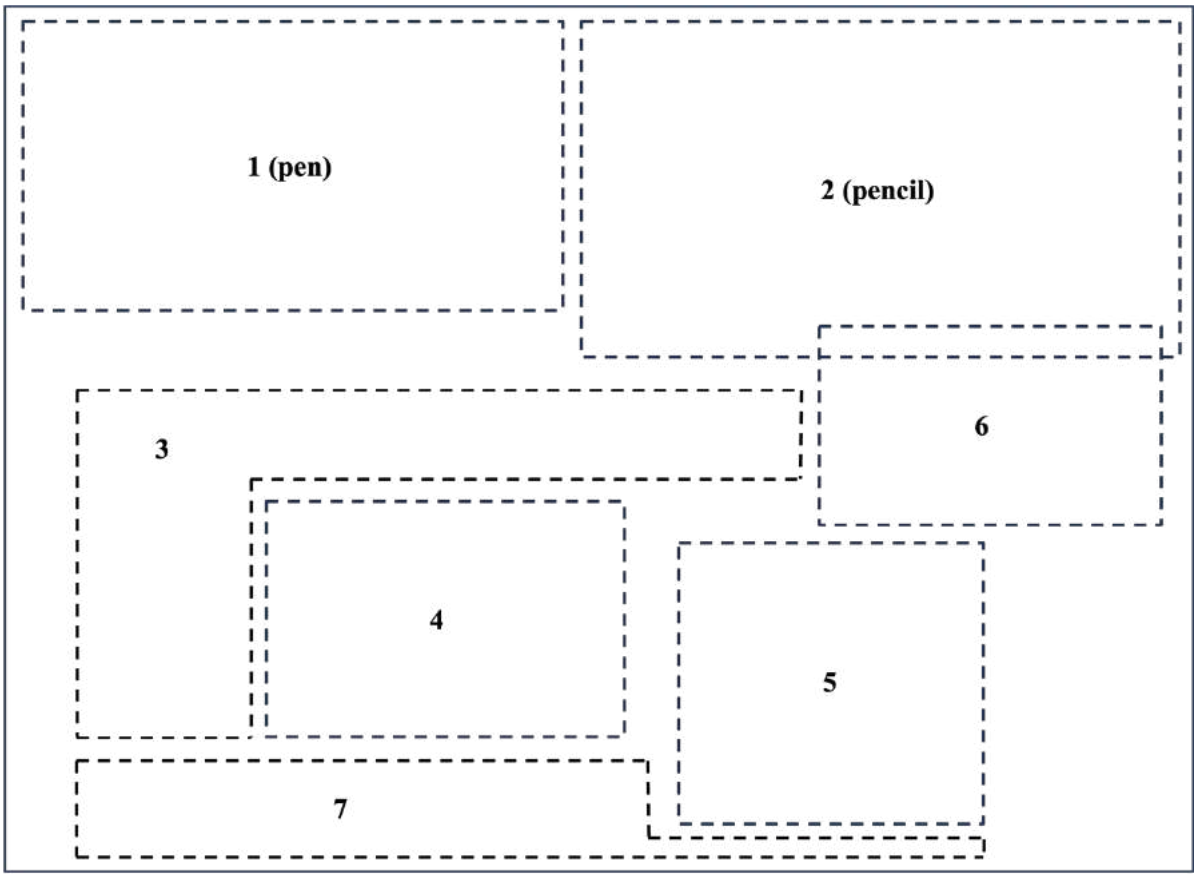


Figure 4.4 Diagram showing the chronology of Figure 4.2

For orientation, this page was, in general sketched in the following order, also depicted in Figure 4.4:

1) Top left black pen
2) All pencil in upper half of page
3) Leftmost 13 movement structure
4) “others”
5) “An interesting formal design…”
6) “Another plan”
7) Pencil on bottom of page

There is some possible variation in this chronology, but certain key guides are clear. The pen in section 1 was written prior to the pencil, as Crumb annotated the violin subtone in pencil. The

sketches in section 2 predated the form sketch in section 3, as the form sketch includes a clean copy of the violin duo pizzicato sketch and the "very high insect sound" consisting of sextuplets and 12-tuplets. After this incomplete form sketch came the list labeled "others," a list of possible movement titles, complete with page numbers for the texts Crumb was referencing. "An interesting formal design…," section 5 in Figure 4.4, followed. This form sketch likely came at this time because it includes more titles than the form sketch in section 3, including some from the list of "others" that previously didn't have a confirmed location. Another, very different, form sketch is in section 6, titled "Another plan." This includes the titles from the form sketch in section 5, but in a very different, 5-movement arrangement. It is difficult to discern whether section 5 or 6 came first, but the labels on these sketches ("another plan" more naturally follows "an interesting formal design") and their placement on the leaf (if the lower right corner of the leaf was empty, it seems unlikely Crumb would have placed this sketch so it intersects with other text on the page) point towards the 5-movement form sketch occurring later. Finally, the list of possible next works on the bottom of the page came at some point after the form sketch in section 3, and likely much later – the list of next works includes *Ancient Voices of Children*, which, in all the form sketches, is listed as a title of a movement or section. After the sketches on this page (and deciding that "Ancient Voices of Children" would be the title of a future work), Crumb kept the reference to Lorca's text but shortened it to "Ancient Voices."

There are several significant steps on this leaf. First, Crumb is working with an abundance of titles and timbres associated with them. Many of these will be simplified, altered, discarded, or moved to other works, but some will remain, such as "Night of the Electric Insects," which has both a messy sketch and a clean copy, and "Sounds of Bones and Flutes," labeled with "rapping wood and flautando." Second, on this leaf we see the continued

development of a symmetrical form through the annotations on the two 13-movement diagrams, transcribed in Figure 4.5. In both, the central movement 7 is labeled with a symbol to the left. In the latter "an interesting formal design," Crumb marked each pair of movements with a curved line for possibly the first time, connecting movements 1 and 13, 2 and 12, etc. The connection between movements is interesting, as there is no mention of instrumentation – previously the only guiding factor in the symmetrical design – on the entire leaf. Instead, the titles of the movements reflect the pairings: 1 and 13 are "(Angels)"; 3 is "Night of the Electric Insects" and its pair, 11, is "(Insect)"; 4 is "(rain)" and 10 is "Even the rain goes softer"; 6 is "Ancient Voices of Children and 8 is "The Child is searching for his voice." Notably, the reference to angels in movements 1 and 13 reflect a connection between those movements and the central seventh movement, as well. At this early point in the sketching process, Crumb was considering the symmetrical form not just in terms of orchestration, but also in thematic, titular, and—based on the connections between titles and timbres listed on this leaf—timbral material.

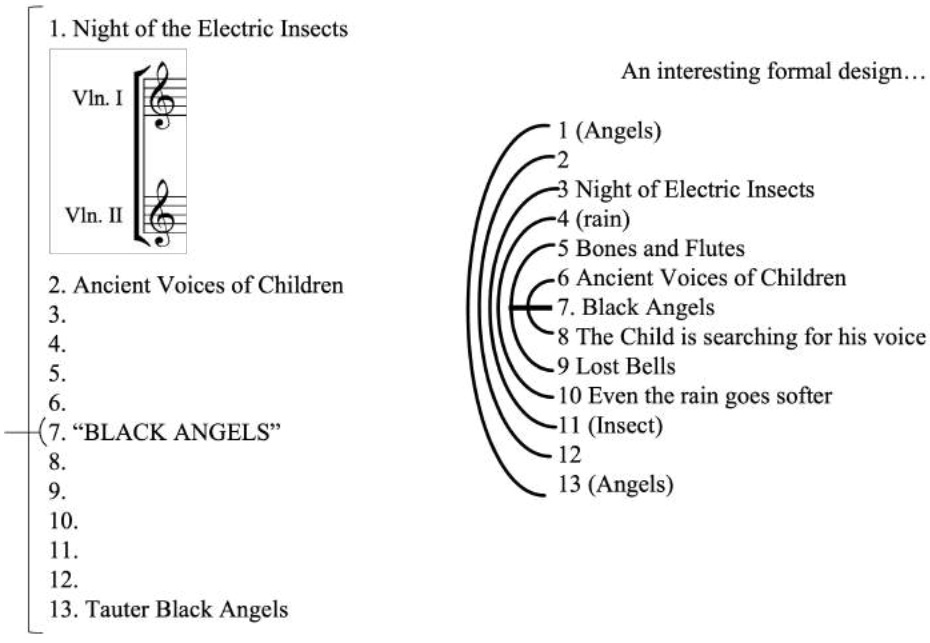


Figure 4.5 Transcription of two form sketches shown in Figure 4.3

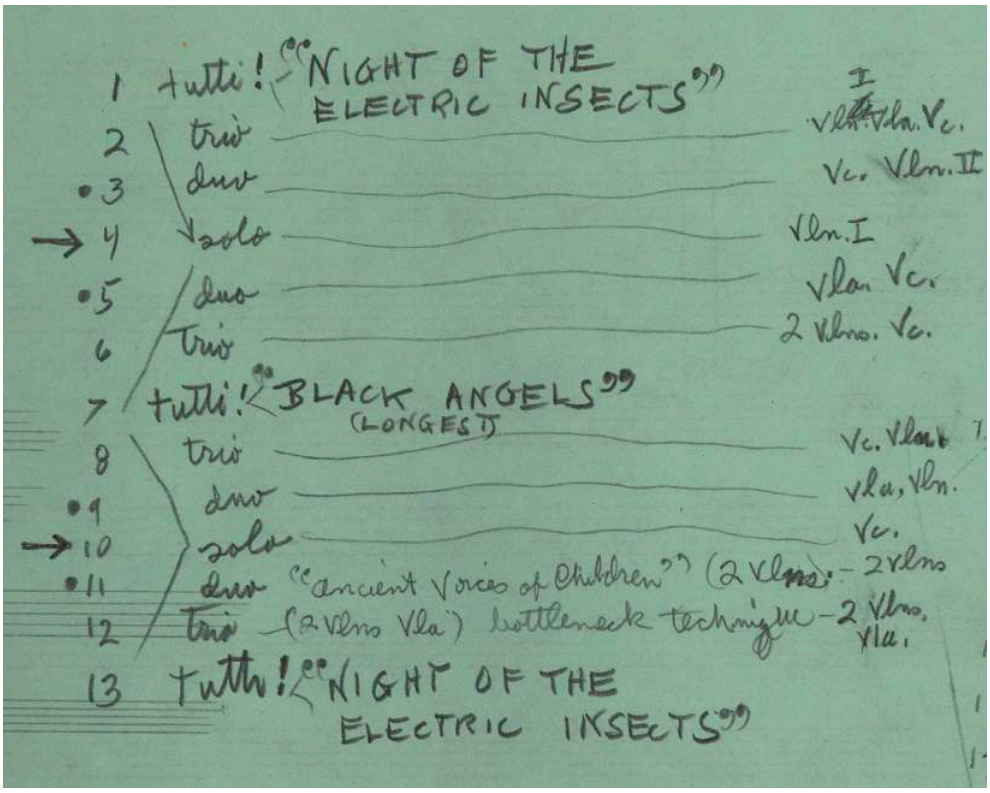


Figure 4.6 A form sketch for *Black Angels* showing an altered placement of titles, denoting the progression of orchestration, and buttress points at movements 4 and 10

The form sketch shown in Figure 4.6 is the first we see of a visual aspect of the formal diagram which will remain present through the remainder of the compositional process. The physical placement of ensemble indications has been changed: the titles move to the right approaching movements 4 and 10, and to the left approaching 7 and 13. This delineation clearly shows the orchestrational progression and the link between movements 1, 7, and 13 (previously only extant in the titles) is now demonstrated through vertical alignment. Crumb has further annotated this new arrangement, emphasizing the progression from movement 1 to 4 with a downward arrow, the progression through the remainder of the piece with angled lines following the contour of the titles, and the two solos, movements 4 and 10, with thick horizontal arrows. These horizontal arrows accentuate the structural importance of the solo movements. In sketches for other works, Crumb uses these arrows to denote what he calls "buttress points," or important structural moments, of a composition. In previous sketches, Crumb connected movements 1, 7,

and 13; that connection is still present in the vertical alignment of those three points, as well as in the orchestration. In this sketch, though, he places new importance on the center of each half of the work, 4 as the center of 1-7 and 10 as the center of 7-13. In breaking the 13-movement form down into two parts, he not only had a buttress point at the center of the larger group of thirteen, but two more at the centers of two smaller groups of 7. The emphasis on these symmetrically-paired solo movements is pivotal for the eventual development of the parable structure, which can be seen in the last two form sketches I will discuss.

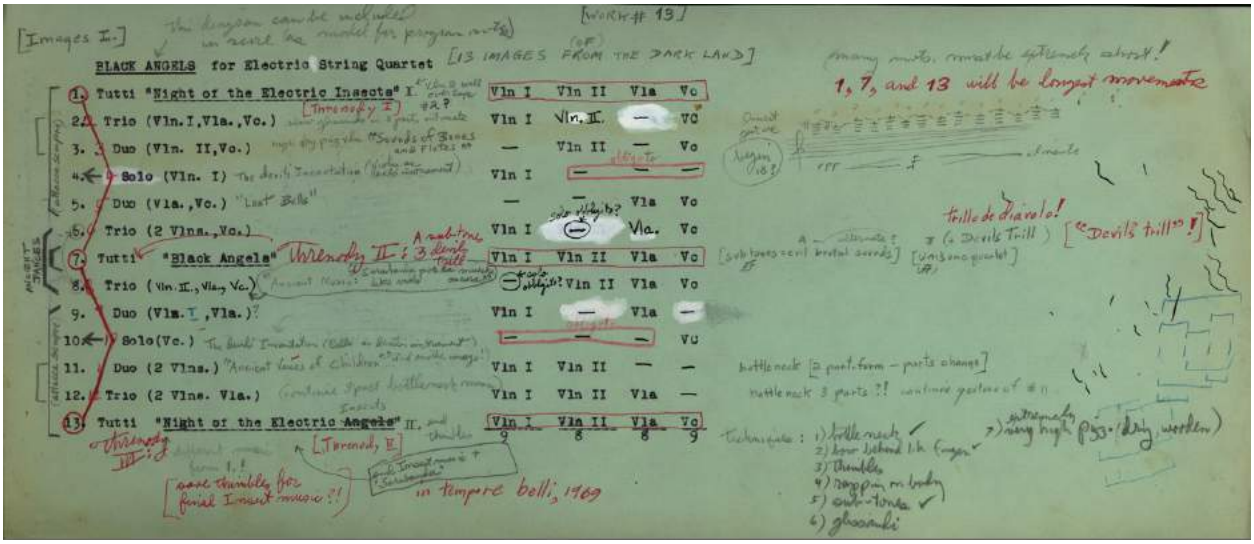


Figure 4.7 A heavily annotated typewritten form sketch for *Black Angels*

The last two form sketches differ from those previously discussed; Crumb typed both on a typewriter before annotating them with various writing utensils. On the densely annotated leaf shown in Figure 4.7, at least four things occurred:

1) Crumb considered different instruments for the duo and trio movements, as well as the possibility of having certain instruments be *obbligato*;
2) Crumb decided on certain title placement and designated movements 1, 7, and 13 as threnodies;

3) In conjunction with the movement titles, Crumb chose where to have key timbral effects and extended techniques occur; and
4) Crumb grouped the movements in non-symmetrical manners

While not all of this work was important for the formal development of the work, this sketch shows a new relationship between instrumentation and the groupings of movements.

The rightmost typed information on this leaf is the details of the instrumentation for each movement; Crumb edited this diagram with white-out, red pencil, black pen, and red pen. Crumb edited which instruments would play the duo and trio movements and added *obbligato* roles for the non-solo instruments in movements 4 and 10. This work continued outside of the chart, as well; on the right side of the page, in light blue pencil, Crumb visually represents basic mathematic combinatorics to enumerate the different configurations of the quartet: four vertical lines, one per instrument, bracketed in various combinations.

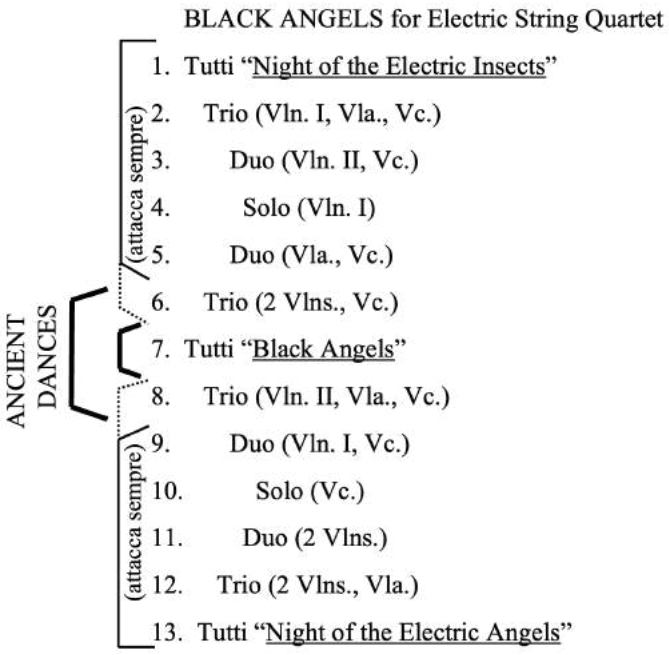


Figure 4.8 A transcription of the left side of the form sketch shown in Figure 4.7. The dashed lines indicate erased markings.

In this sketch, new groupings are shown by the large brackets on the left of the movement numbers. There are two layers of annotations: the topmost layer shows a grouping of movements 1-5, 6-8, and 9-13 and a heavy bracket on movement 7; reading the erasures underneath shows movements 1-6 were originally grouped together, as were 8- 13, before Crumb shortened the brackets. I have attempted to clarify this in Figure 4.8 by removing extraneous text. The first and last of these brackets are marked "attacca sempre" in both layers; Crumb originally had these titles centered in the brackets, as one would expect, but, when he shortened each grouping to 5 movements, he erased and rewrote the edge of the bracket, not the title.

This original grouping, 1-6, 7, 8-13 is demonstrative of the palindromic form. It is possibly most similar to the first form sketch shown in Figure 4.2, where movement 7 was labeled the "centerpiece"; designating movement 7 as the only non-attacca movement figuratively and literally separates it from the rest. Crumb, however, grouped movements 6-8 together, first linking 6 and 8 with a curved double arrow as in the pairings of movements seen in previous form sketches, later erasing that arrow and bracketing movements 6-8 together into one section labeled "ANCIENT DANCES." This new grouping of 1-5, 6-8, and 9-13, although symmetrical, shows the inklings of the parable structure and the groupings of Departure, Absence, and Return. Many of the later form sketches show Crumb working out various combinations of adjacent movements into larger sections. Even in this sketch, secondary brackets join movements 11 and 12. These brackets are connected to timbral indications Crumb marked to the right of the instrumentation for movements 10 and 11, "bottleneck [2-part form – parts change]" and "bottleneck 3 parts?! continue gesture of #11." The pairing of these movements with identical techniques led to them being bracketed on the far left of the leaf. Although Crumb titled this movement "Ancient Voices of Children" and wrote the note "(find another image)" –

assumedly because he decided to use that title for the song cycle *Ancient Voices of Children* – the pairing of these movements remained in technique and the final titles—"Ancient Voices" and "Ancient Voices (echo)." In addition to this bracket, movements 2 and 3 are bracketed, assumedly because they are the symmetrical opposite of movements 11 and 12. At this stage in the sketching process, Crumb had begun larger groupings that would turn into the sections Departure, Absence, and Return, as well as other pairings that will complicate the symmetrical form.

The previous leaf in Figure 4.7 shows movement towards the parable structure on one of the two concurrently developing paths. It shows the beginnings of groupings of movements but does not show further development of movements 4 and 10. In that sketch, the physical placement on the page shows their status as buttress points, but the two movements even share the title "Devils Incantation," reflecting that they were still a symmetrical pair. In the last form sketch I explore, comparatively, we see development of both roots of the parable structure, the alteration of movements 4 and 10 into an opposed pair and the grouping of movements. I discussed this sketch previously in its relation to the composition log; this is the sketch mentioned on January 8, 1970 and shown in Figure 2.5, as Crumb applied the "Departure, Absence, Return" idea. In addition to that grouping, in this sketch Crumb introduced the Devil/God paradigm that is key to the parable structure and Johnston's analysis.

This sketch, shown again in Figure 4.9 has many similarities in format to the form sketch previously discussed: Crumb first typed out the form diagram before annotating it in black pen, pencil, and red pencil. Much of the work from that previous sketch is evident, as many of Crumb's annotations are in this initial layer. More movement titles, including the designation of "Threnody" to movements 1, 7, and 13, are typed; the instrumentation adjustments completed in

white-out and pen are now typed; and the designation "(Thirteen Images from the Dark World)" and "(in tempore belli)" were added to the title. This initial layer also includes vertical brackets grouping movements as in the previous sketch, 1-5, 6-8, and 9-13. Crumb wrote these brackets in pen using a ruler, as the vertical lines are perfectly straight and vertical.

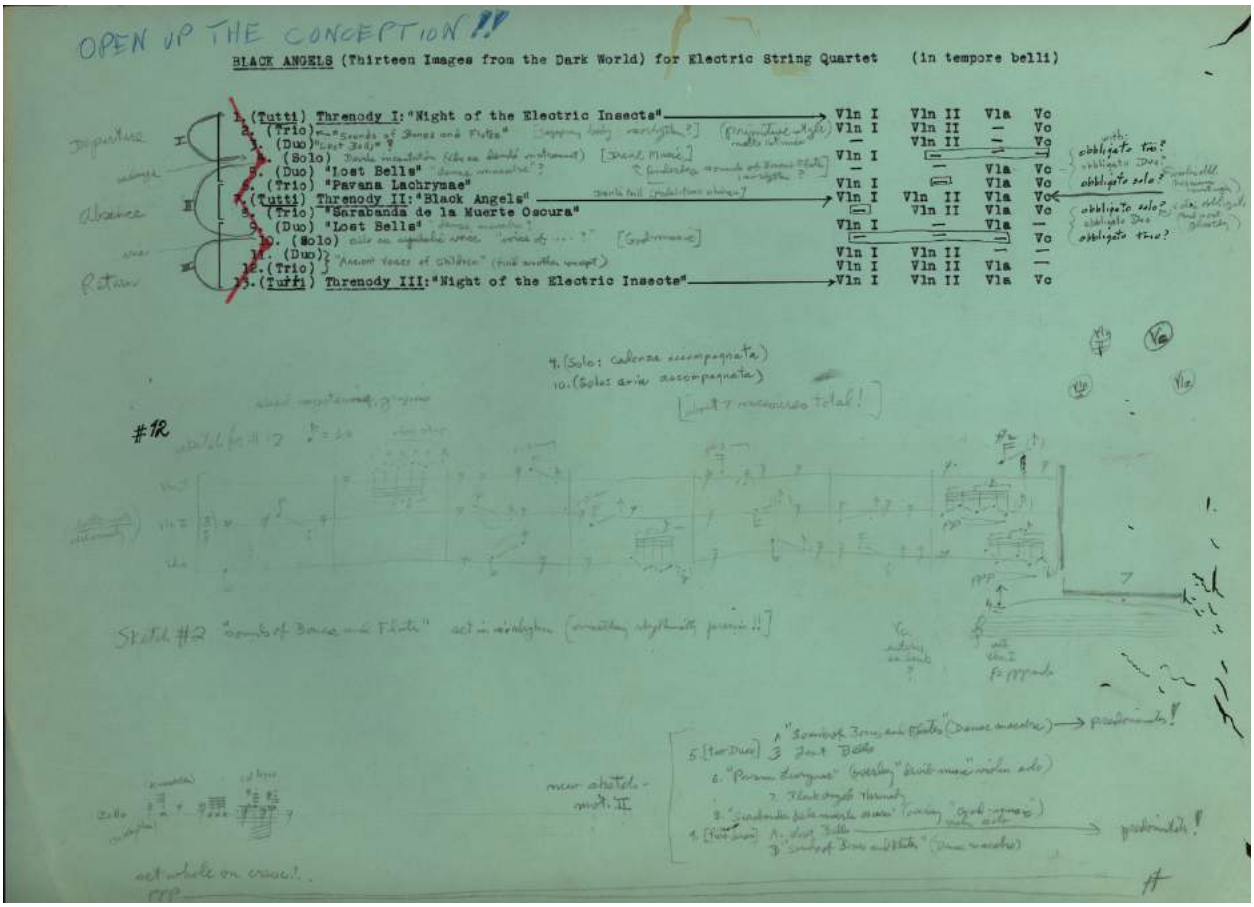


Figure 4.9 Another leaf possibly intended for Draft A, showing Crumb grouping the movements into larger sections (reproduction of Figure 2.5)

Crumb considered many different groupings for the middle section of the piece. A smaller sketch on this leaf labeled "new sketch – mvt. II" includes different titles for movements 5-9; a different form sketch includes a bracket around movement 4-8 labeled "II?"; on that same leaf, Crumb again grouped movements 5-9 with the title "II. Ancient Dances of Death." At some point in this process, he settled on grouping movements 5-9, meaning the other two sections would be 1-4 and 10-13. He marked each with a semicircle on the left side of the diagram, first

labeling them “I,” “II,” and “III,” and later adding “Departure,” “Absence,” and “Return” further to the left, assumedly on January 8 as marked in the composition log. These labels would remain for the rest of the sketching process, although Crumb would alter the groupings. At this stage, these grouping are still symmetrical, 4 movements – 5 movements – 4 movements.

In addition to these developments in the grouping of movements, on this page we also see the key alteration in the pairing of movements 4 and 10. Previously labeled with the same title, implying a symmetrical pair of movements with similar thematic or timbral material, on this sketch Crumb first labels the fourth movement “Devils incantation (Vln as devil’s instrument)” and the tenth movement “cello as symbolic voice “voice of . . . .?” What that symbolic voice would be eluded him at first, but eventually he arrived at the title “God-music” for the tenth movement, opposed by “Devil Music” for the fourth movement. With this change in title, and the introduction of new timbral concepts that go with that change, these movements transformed from a symmetrical pair around the center to diametric opposites.

This sketch changed the trajectory of the piece dramatically. Without this change in the solo movements, the piece would be rooted in the central threnody, the seventh movement, moving outward to the connected threnodies at the edges of the work. The solo movements would have structural importance as the center of each half of the piece but not necessarily carry as much dramatic weight. With this switch, however, the solo movements hold dramatic and structural weight as two opposite poles. Combined with the addition of the titles for each section, this sketch innately adds forward motion to the piece, from the Devil to God, from evil to good, from Departure to Return. At this point in the process, though, the relationship between the symmetrical structure and the parable structure was still remarkably clear, though, as the

grouping of movements was still symmetrically organized. The parabolic, or teleological, motion of the piece did not blur the symmetry.

Throughout the remainder of the sketching process, the form of *Black Angels* gradually transformed into what we see in the published edition. In the beginning, Crumb started with a 13-movement form based on symmetrical orchestration. Movements four and ten emerged as buttress points based on their placement at the center of each half of the work. Concurrently, Crumb started grouping movements into a larger symmetrical structure due to the central movements all being "ancient dances." Later, these groupings superseded the symmetrical pairings of movements; starting the second grouping with movement 5, "Danse Macabre" made sense when the organizing factor of the grouping was ancient dances. However, the idea of "Absence" did not align with "Danse Macabre." Rather, it made more programmatic sense to group "Danse Macabre" with the preceding "Devil-music," allowing "Absence" to start with the distant-sounding "Pavana Lachrymae."

As is evident in the sketches, the symmetrical and parable structures in *Black Angels* were developed concurrently and have identical roots. The importance movements 4 and 10 arose from their placement in the symmetrical organization and their status as the only two solo works. The groupings of movements arose from symmetrically paired ancient dances, which gave way to the parable structure. The symmetrical structure was prioritized in the beginning; from the very first sketch, the orchestration of the work was symmetrically organized, and Crumb rarely diverted from that concept. Early sketches show similar titles and concepts for each symmetrical pair of movements, but the thematic pairings became less important as the programmatic movement through the work took shape. As a result, the symmetrical form of *Black Angels* exists in the orchestration and the numerological mottoes, while the parable

structure is shown in the thematic content of each movement. The parable structure arose out of the symmetric, but in the end superseded, even blurred, the original concept.

In this last section of this chapter, I will review the challenges of understanding the form of *Black Angels* and consider them in the context of Paul Fussell's work on war memoirs.

III. Considering *Black Angels* and War Memoir

The previous review of sketch material from *Black Angels* has demonstrated a process through which teleological motion, to use Johnston's term, gradually emerged from the symmetrical structure that Crumb began with. As a result, the programmatic material of each symmetrical pair does not align, even if the orchestration and numerological mottoes do. The resultant symmetrical structure is less obvious on the surface and challenging to hear. Johnston touched on this, referring to the palindrome as "lumpy," and Edith Borroff had previously noted the "balanced imbalance of the total structure" of the work.[111]

Although the change discussed at the end of the previous section, from a 4-5-4 symmetric grouping of movements to a 5-4-4 asymmetric grouping, creates part of this "lumpiness," the larger challenge is caused by the grouping of movements 11 and 12 as "Ancient Voices" and "Ancient Voices (echo)." That change is rooted in the sketch shown in Figure 4.7, where Crumb first bracketed the two movements together. (That bracket referred to the two movements both making use of the "bottleneck" extended technique, where the violinist use a glass metal rod to depress the strings instead of their left hand.) Thinking symmetrically, the music in movements 11 and 12 should occur in some fashion in movements 2 and 3, "Sounds of Bones and Flutes" and "Lost Bells," but the music in those movements both return in the ninth movement.

[111] Johnston, "Between Modernism…," 7 and Borroff, *Three American Composers,* 239.

Johnston has a theory for this this. Although he orients the piece around teleological genesis in the tenth movement, he distances his analysis form Hepokoski and Darcy, placing emphasis on the interaction between the symmetrical and the teleological forms. "[Form in *Black Angels* is] a kind of feed-backward/feed-forward process that takes place across the quartet's many interconnected movements. Isolated events present structural features apparently out-of-context, and later events and materials draw upon those features, clarifying them and solidifying our understanding of them in retrospect (feed-backward), while at the same time providing potential conditions for the more fully formed structural context of the culminating point (feed-forward)."[112] A symmetrical construction, by nature, would always have this kind of feed backward/forward motion; early movements would always predict later ones and vice-versa. But the temporality of *Black Angels* is unique because, although it developed out of a symmetric construction, the offsetting of callbacks or foreshadowing and the introduction of new techniques, timbres, and music after "God-music" hinder the listener's ability to perceive the symmetrical connections, emphasizing different relationships between movements. The programmatic symmetry was shaken up and moved out-of-order.

As discussed, Crumb derived the titles for the three-part structure "Departure," "Absence," and "Return" from the movements of Beethoven's *Les Adieux* sonata, "Abwesenheit," "Lebewohl," and "Wiedersehen." The Devil/God paradigm, along with the references to angels throughout the work, allude, at least tangentially, to the concept of death and rebirth. Three-part structures like this are not altogether uncommon, as Crumb noted in our interview:

[112] Johnston, "Between Modernism…," 5.

> I got the idea of the three big divisions from Beethoven's Sonata. Departure, Absence, and Return, and it's amazing. Probably fits with a lot of scenarios, you know. Or maybe there's another one, you go and see the horrible things that happen and get away from it. Or don't, or you stay, underground or something![113]

There are many different allegories or three-part structures that could fit such a general template; I would like to focus on one, as analyzed by literary historian Paul Fussell in *The Great War and Modern Memory*. In this literary critique exploring soldiers' written responses to their experience in World War I, Fussell breaks down the concept of a war memoir into three parts: preparation, experience, and retirement. He expands the concept, connecting the written experience of war to the larger allegory of death and rebirth.

> The "paradigm" war memoir can be seen to comprise three elements: first, the sinister or absurd or even farcical preparation...; second, the unmanning experience of battle: and third, the retirement from the line to a contrasting (usually pastoral) scene, where there is time and quiet for consideration, meditation, and reconstruction.[...] War experience […takes] the form of the deepest, most universal kind of allegory. Movement up the line, battle, and recovery become emblems of quest, death, and rebirth.[114]

The three parts of the war memoir as defined by Fussell have an evident correlation to the three parts of *Black Angels*; preparation and departure, experience and absence, and retirement and return. While *Black Angels* is not written by an ex-soldier nor, according to Crumb, intended as a response to the Vietnam War that was occurring during the compositional period, the piece is marked "(in tempore belli)." Crumb was careful with the terminology he used to describe the piece in relationship to the war—as an example, he referred to the connection between Vietnam and the piece in terms of his "antenna" picking up things that were in the air, rather than saying

[113] Author's interview with George Crumb.
[114] Paul Fussell, *The Great War and Modern Memory*, 130.

he was writing a war piece or an anti-war statement—but he readily admitted the connection between Vietnam and his compositional process:

> I kind of got drawn into it. I think I said some place once, in an interview, that composers, like everybody else, they're influenced by their surroundings, you know. Or events, like the Schoenberg Warsaw piece. And then *Eroica* Symphony is obviously reflective of all that French Revolution and everything that was changing, you know. So that's the way. With me it just happened. I found that the images I had in my mind about the music, the themes, the thematic side, was going more and more towards the Vietnam. So eventually, it did become in time of war.[115]

Crumb speaking about the relationship between his work and the Vietnam War and Fussell's analysis of World War I memoirs does not necessitate a connection; the gulf, historically and culturally, between the Great War and Vietnam is significant and, as both Crumb and Fussell said, the three-part structure is commonplace, or even "universal." Yet it is not surprising that the two structures share some similarities. If we consider the application of Fussell's paradigm to war memoirs that came out of Vietnam, however, more connections emerge and provide a new angle to understand the complex feed-forward/feed-backward temporality of *Black Angels*.

Let's take *The Things They Carried,* one of the most popular books by Vietnam veteran Tim O'Brien and a preeminent novel in the genre of Vietnam War fiction. *The Things They Carried* is a series of twenty-one interconnected short stories that blur fiction, nonfiction, and autobiography. O'Brien takes the reader through all aspects of Vietnam, the draft, and returning home with stories they cannot tell. All the Fussell stages are present, but they are not presented chronologically, or with much semblance of chronology at all. Events happen out of order and are both pre- and post- explained, sometimes in a contradictory fashion.

[115] Author's interview with George Crumb.

Although all of Fussell's stages are present throughout much of the book, they occur multiple times and in various orders, both within chapters themselves and in the text as a whole. Fussell's preparation stage is exemplified in the chapter "On the Rainy River." A soldier-to-be retreats to a cabin in Minnesota, considering the implications of, and reminiscing as to why he decided against, draft dodging by swimming across the river to the Canadian forest.[116] Fussell's experience stage is shown in the chapter "In the Field:" The narrator's platoon searches for the body of a fellow soldier named Kiowa and recounts his death the night before: the platoon had set up camp in a sewage field and, after several hours of rain and mortars down pouring, Kiowa had "drowned in a shit field."[117] In "Speaking of Courage," veteran Norman Bowker has returned to the States and circles a lake in his father's Chevy. He tries repetitively, always failing, to ask anyone within sight, "Want to hear about the Silver Star I almost won?" in between recounting various versions of the story to the reader.[118]

Within each story and in the organization of chapters, temporality is complex. It is not just that stories are presented out of order, but the stories are often repeated, expanded, and altered. This repetition emphasizing the structural and dramatic importance of certain events – such as the time Norman Bowker almost won a Silver Star – while retroactively clarifying the plot and providing context for future parts of the story (that may have already been told). These stories feed both backward and forward. Fussell's paradigm is present in *The Things They Carried*, but each stage of it runs throughout the text, repeatedly referenced and amended. The ending we would anticipate from the paradigm—"retirement from the line to a contrasting (usually pastoral) scene"—is never stable because of the constant retelling of the story.

[116] Tim O'Brien, *The Things They Carried,* (Boston: Mariner Press, 2009), 37.
[117] O'Brien, *The Things They Carried,* 155.
[118] O'Brien, *The Things They Carried,* 131.

While the process is not identical in *Black Angels*, the interaction of the symmetrical form and the parable structure prevents some striking similarities. If we consider the "God-music" as the goal of the parable structure—salvation, after all, seems like a worthy goal to orient the work around—the arrival is only temporary because of its place in the symmetrical structure. The symmetrical structure requires three movements to follow "God-music," in which previous music must be referenced. Just like retirement in *The Things They Carried*, as Johnston put it, "Revelation in *Black Angels* therefore cannot last, and the *telos* breaks down. It is a goal, but, unlike Hepokoski's, not final."[119]

Black Angels and *The Things They Carried* are not the same, and I am certainly not arguing that *Black Angels* is a war memoir or should be analyzed as such. But the similarities in temporality and in overall structure of *Black Angels* when compared to the Fussell's paradigm and the literature of the Vietnam War make can nonetheless augment our understanding of the form of *Black Angels*.

[119] Johnston, "Between Modernism…"34.

Chapter 5 The Realization and Evolution of Numerology

In this chapter, I demystify the "magical numerological mottoes" Crumb used as a structural element in *Black Angels*. Crumb says these mottoes, such as "7 under 13" or "13 in 7," "are expressed in terms of phrase-length, groupings of single tones, durations, patterns of repetition, etc."[120] Having previously used the compositional schedules to show when Crumb began experimenting with numerology, I again turn to the sketches to show how Crumb applied the concept and, at times, possible fudged the numbers to make the mottoes work in each movement. This chapter also includes descriptions of methods I found helpful in reading erased markings in Crumb's sketches. To begin, I look at a point of reference Crumb likely used when applying the concept throughout the work. I then explore the realization of the numerological mottoes for each movement, referencing the sketches and previous work on this subject by Victoria Adamenko.[121]

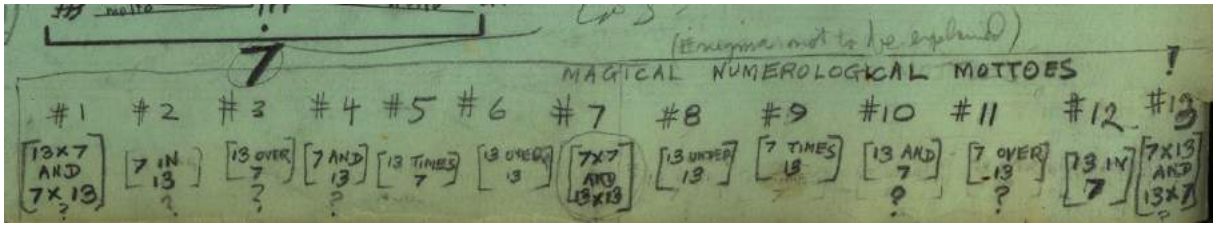


Figure 5.1 A chart showing the numerological basis for each movement on the bottom of page 1 of Draft A

[120] George Crumb, *Black Angels*, Performance Instructions, (Edition Peters), i.
[121] Victoria Adamenko, *Neo-mythologism in Music: From Scriabin and Schoenberg to Schnittke and Crumb*, ed. Siglind Bruhn and Magnar Breivik, Interplay: Music in Interdisciplinary Dialogue, (Pendragron Press, 2007). Adamenko discusses the final realization of the numerological mottoes of some of the movements. Some of this analysis was also included in the article Victoria Adamenko, "George Crumb's Channels of Mythification," *American Music* 23, no. 3 (Autumn 2005).

I will first, once again, turn to Draft A. Crumb wrote that he completed the "numerology idea" on January 9, 1970; Draft A appears to be his vehicle for doing so. The chart shown in Figure 5.1 is from the bottom of the first page of Draft A. Above this chart, Crumb wrote "(Enigma not to be explained)." Even though the "enigma" was not explained in the score, he did keep track of many of his realizations for his own purposes. The methods of application of each motto are marked throughout many movements in Draft A; I include examples where these markings are particularly insightful. Crumb appears to have used this chart as a working reference when testing numerological mottoes for each movement. Most, if not all, of the mottoes have been erased and written over. Figure 5.2 shows a more in-depth look at the right edge of this chart, both in the original color (right) and with the colors inverted (left).

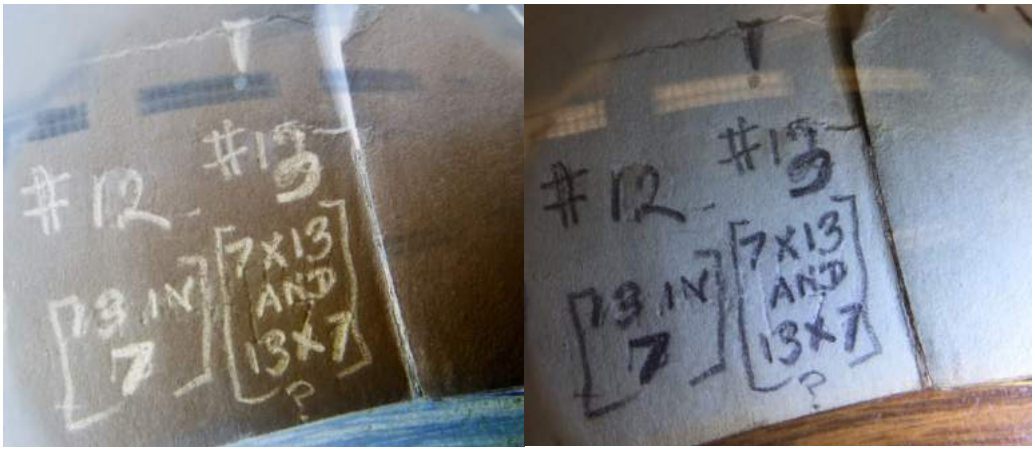


Figure 5.2 A closer look at the numerological mottoes for movements 12 and 13; photo in original color (right) taken with a magnifying glass against the camera lens and then color-inverted to show shadows (left)

When writing with a pencil, Crumb often made heavy, thick lines that left indentations in the paper when erased. To read his erasures, then, I found it helpful to read the indentations from an angle, with a magnifying glass, or in a photo with the colors inverted. The photos in Figure 5.2 show an example of this. The erased markings underneath the motto for #13 are difficult to read in normal coloration; a left-hand bracket, the number 13, and a number 7 are possible to read, but the 3 in 13 is difficult to clarify and the letters to the right of it are illegible. With the colors

inverted, however, the indents from the erased markings are darker and clearer and the word "IN" can be deciphered.

The reason for erasing and rewriting the mottoes here isn't clear. The lower layer of "7 IN 13" for #13 is the same as the upper layer of #12. Additionally, it appears that Crumb initially wrote #12 where we see #13; the lower half of the original "2" is clear in the middle part of the newer "3." This implies that Crumb wrote out numbers until 12, then realized he had run out of space to put the motto for 13 and re-wrote them. However, none of the other numbers appear to be offset. In Figure 5.2, for instance, the indentations from an erased "12" can be read underneath the "#12" written in pencil. It is unclear in general whether Crumb rewrote these mottoes because he changed them—the question marks underneath the mottoes for movements 1-4, 10, 11, and 13 imply some level of uncertainty about the placement of each motto—or because he needed more space on the page. While most of the mottoes do not change from the erased layer to the pencil layer, #2 appears to have been changed from "13 OVER 7 to "7 IN 13" and #10, originally "13 UNDER 7," is now "13 and 7."

5.1 Movement 1: THRENODY I: Night of the Electric Insects

In the opening *tutti* movement, the numerological motto is "13 times 7 and 7 times 13." In Draft A, Crumb wrote the explanations "13 groups 7" and "91 beats [quarter note]." The 13 groups of 7 reference the first half of the motto, the 91 beats the latter ($7 \times 13 = 91$). Draft A shows Crumb expanding and contracting the lengths of various groups of repetition, as well as indications showing him counting the number of beats in the movement. The realization of "7 times 13" is easy enough to check; although Crumb miswrote the note value, there are 91 beats

in the entire movement, they are just eighth notes instead of quarter notes. The pulse is also 60 eighth notes per minute, so if performed exactly as written the movement lasts 91 seconds.

The 13 groups of 7 notes are less immediately clear than counting the number of beats in the movement. The *tutti* groups of 7 are easy to count: the first two systems of the movement consist of 7 *fortississimo* beats (#1), a group of 3 *pianississimo* beats followed by 4 *fff* beats (#2), a group of 7 *ppp* beats (#3), a group of 5 beats, a group of 7 beats with unison dynamics (#4), and a group of 7 beats with the middle voices continuing offset quintuplet gestures and the outer voices interjecting with a *piangendo* motive (#5). Overall, the first four systems of the movement have 9 clear groups of 7 beats. The final 4 iterations are all played by offset individual instruments and occur in the final ten beats of the movement. Each instrument has a motive of two quintuplets followed by a 5-beat *glissando* down, for a total of 7 beats.

5.2 Movement 2: Sounds of Bones and Flutes

The numerological motto for the second movement is "7 in 13." There are four entrances of the first violin and the numerology is clear within each. Each entrance has three 32nd notes, seven 16th notes, three 32nd notes; seven 16ths in the middle of thirteen total notes (see Figure 5.3 below). In Draft A, these first violin entrances are later additions, added in a much messier, handwritten script compared to the rest of the movement written in a clean copy. ["7 in 13"] is written below these entrances.

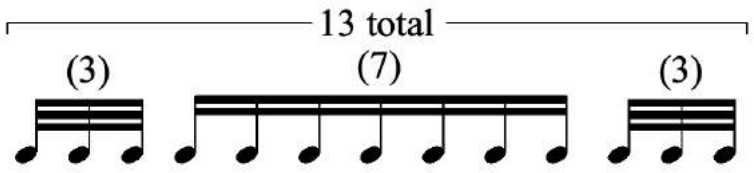


Figure 5.3 The rhythm of the first violin figures in "Sounds of Bones and Flutes"

There are additional possible iterations of the motto and the numbers 7 and 13 in general in this movement. Within the two accompanying voices (second violin and cello), each iteration has 13 metric beats, divided into 3/8, 3/8 and 7/16, meaning that there is one 7/16 bar in each group of 13 beats. The one exception is the third iteration, which has an additional 3/8 measure at the beginning. Although it is more of a stretch to add phrases and beats, one could argue that the 4 (phrases) + 3 (extra beats in the middle) = 7. The length of the second violin and cello parts also includes 41 beats total, which is equal to 7 multiplied by 6; $7 + 6 = 13$.

5.3 Movement 3: Lost Bells

In "Lost Bells," the numerological motto 13 over 7 appears in only one clear instance. In the overlapping harmonics played by the cello and second violin, 13 notes are spread out over 7 different chords (in a symmetrical formation). 13 and 7 appear generally in other ways; the cello's second entrance is 13 notes and the second violin's second entrance is 7 notes.

5.4 Movement 4: Devil-music

The motto for "Devil-music" is 7 and 13, one of the more general applications of a numerological concept. Groups of 7 and 13 notes abound in the movement; the first and last feathered beam groups for the solo violin are each 13 notes and the first and last interjections of the obbligato trio are both 7 notes. However, the main realization of this work has to do with pitch organization. The opening gesture of a perfect 5^{th} plus a tritone – descending E, A, D# – represents 7 and 13. The perfect fifth is made up of 7 semitones; the minor 9^{th} from E to D# is 13 semitones.

5.5 Movement 5: Danse Macabre (Duo alternativo: Dies Irae)

In “Danse Macabre,” the numerological motto “13 times 7” refers to the time signatures. The number 7 appears as the numerator at each time signature change; including two that are simultaneous, there are thirteen time signatures in the movement, resulting in thirteen “7”s spread across the five systems.

A different realization of the motto “13 times 7” was hidden by an insert added after Crumb wrote out a draft of the movement in Draft A. The length of the entire movement is equivalent to 13.25 7/16 measures (13 7/16 measures plus two 7/128 measures). Crumb added the two extra 7/128 measures after he drafted the movement. At the bottom of page 5 of Draft A, shown in Figure 5.4, Crumb wrote a three-measure long insert in 7/128 meter. He later cut the last measure of this insert, but added two measures in 7/128 time (or, 0.25 of a 7/16 measure); this insert is the second and third measures of the fourth system of the movement. Thus, the math did work—the length of the movement was thirteen 7/16 measures, 13 times 7—but the later addition skewed it.

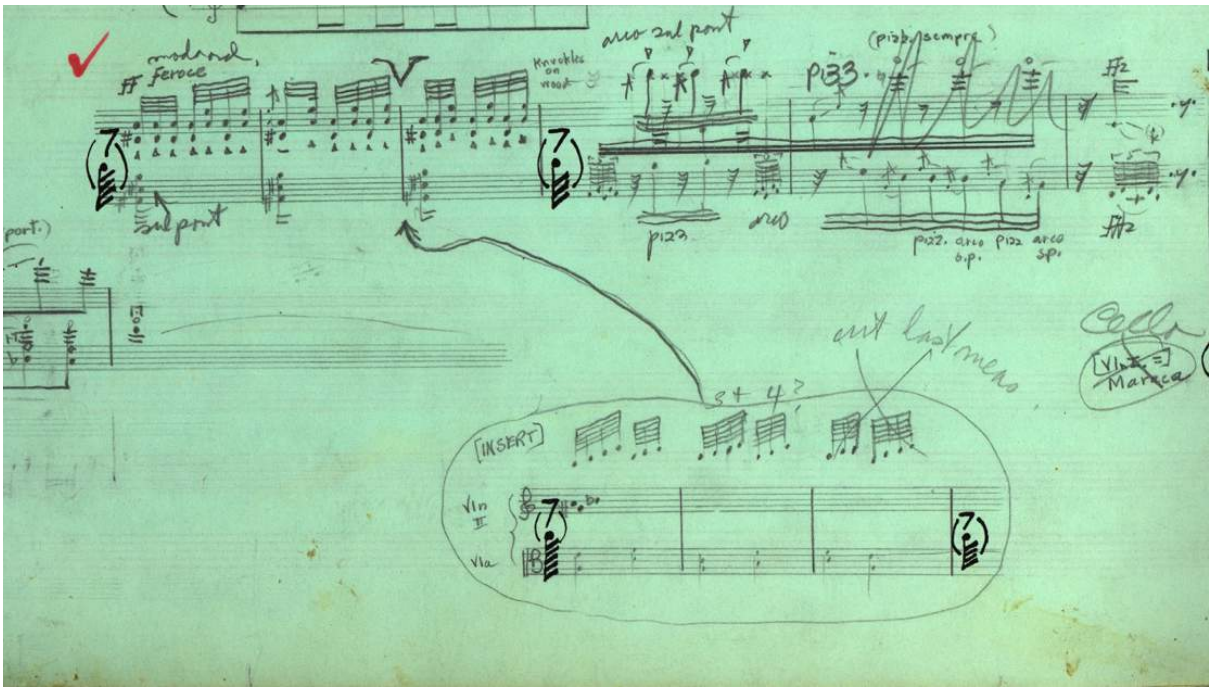


Figure 5.4 Bottom section of page 5 of Draft A, showing an insert Crumb added to the fifth movement "Danse Macabre"

5.6 Movement 6: Pavana Lachrymae (Der Tod und das Mädchen) (Solo obbligato: Insect Sounds)

The ending of "Pavana Lachrymae" is a solo violin (the "solo obbligato") playing 13 different pitches over the course of 13 seconds ("13 under 13"). Although there are no clear instances of 13 in the trio, the trio does have 91 (7 times 13) total notes, and the obbligato insect sound in the first violin has 13 notes (if you do not count any repeated notes, see Figure 5.5). Draft A shows Crumb considering adding two measures to the trio, for a total of 13, but he ultimately decided against it.

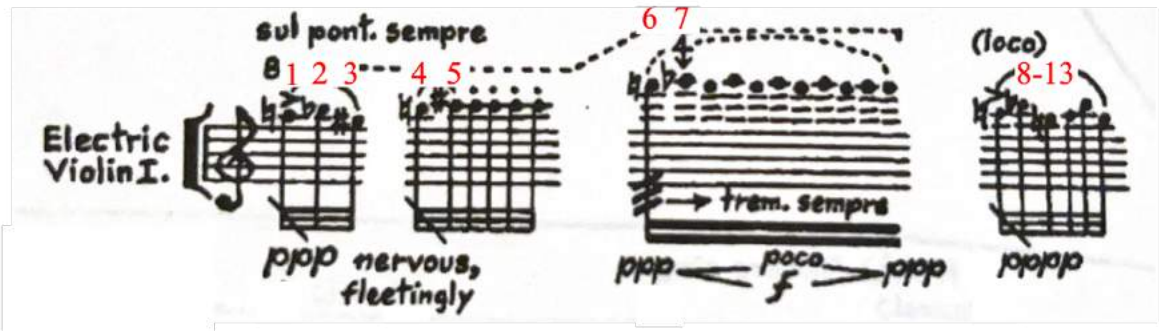


Figure 5.5 Finding 13 notes in the solo obbligato insect music in "Pavana Lachrymae"

5.7 Movement 7: THRENODY II: BLACK ANGELS!

The numerological motto of "7 times 7 and 13 times 13" for the second threnody is also labeled as "the numerological basis of the entire work." While any relationship between this motto and the other mottoes is unclear, outside of the continued use of 7 and 13, there are various approaches to understanding the realization of the motto within this movement.

Crumb's original organizational principle for this movement, as indicated in Draft A and other sketches, was to have 7 groups of 7 notes, such as the opening figure of the movement, and 169 (13 times 13) notes in the movement outside of those groups of 7. Figure 5.6 is a transcription of a form sketch for this movement. This sketch shows seven buttress points ("7 events of 7 repetitions") and 13 sets of 13 notes organized between and after those events.

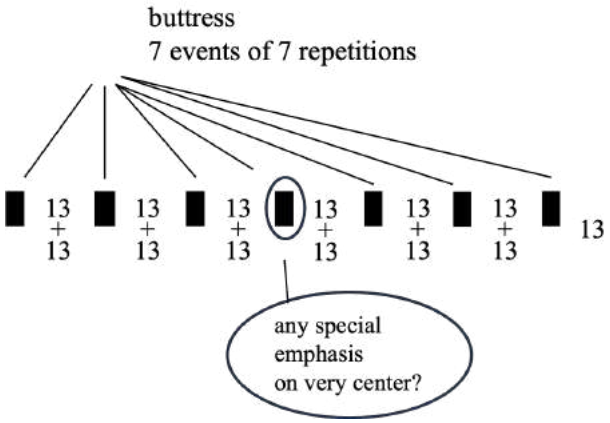


Figure 5.6 Transcription of a form sketch for movement 7

After attempting to draft a version of this movement twice, Crumb abandoned the complete application of the concept. Both drafts, one in Draft A and a second on two different leaves, include the first four buttress points but only scattered musical ideas after the climactic fourth group. Ultimately, the final work includes these first four groups of 7; the opening 7 notes, a group of 7 unison D#s in the violins and cello (2nd system), a group of 7 cumulative down-bow descending tritone gestures in the violins and viola (3rd system), and the 7 tremolo gestures between the shouted interjections (beginning with the final gesture of the 5th system). The groups of 13 notes between these remaining buttress points, supposedly totaling 169 for the movement, are unclear. In attempting to find these groups of thirteen, there are too many variables regarding which pitches "count:" should we include grace notes? Should we include the parenthesized notes indicating what pitches to trill to? If gestures are in unison, should they be counted once overall or once for each instrument? Some combination of these variables might make the math work, but Crumb's application of the motto in this movement, given the information in the sketches, is challenging to read.

Victoria Adamenko has presented a different analysis of the numerological motto; while the sketches do not show the application of the concept in this manner, it is certainly a more complete application than that shown in the sketches.

> The puzzling subtitle for this movement combines the numbers 7 and 13 in a repetitive manner: "7 times 7 and 13 times 13." The movement opens with a tritone in each of the parts repeated 7 times. In the context hinted at by the subtitle, the tritone is apparently represented by the number 7. The formula "13 times 13" applies to the number of utterances of the word "thirteen" pronounced in different languages – namely, it appears

3 times uttered by 3 performers (total 9 utterances) on page 5 of the score, and one time at the end of the movement by all four participants (9 + 4 = 13).[122]

Adamenko's reading of the motto in this movement relates to that of the fourth movement, where a tritone is representative of the number 7 due to the number of semitones in the interval. Whether this was a structure Crumb built into the movement on purpose is impossible to say.

5.8 Movement 8: Sarabanda de la Muerte Oscura (Solo obbligato: Insect Sounds)

In "Sarabanda de la Muerte Oscura," the placement of each 13 in the motto "13 over 13" corresponds with the division of instrumentation (trio and solo obbligato). The lower 13 relates to the trio labeled "like a consort of viols." This passage, the sarabanda from the title of the movement, is 13 measures long before the entrance of a bowed tam-tam signals the beginning of the ninth movement. The upper 13, both visually and in terms of pitch, occurs in the solo obbligato music in the second violin. The first entrance of the second violin is 13 pitches over the course of 13 seconds. The remaining three entrances of the violin total 26 notes, 10 notes, 13 notes, 3 notes. Outside of the number of notes—13 in the middle entrance and 2×13 overall—there is no clear way to find a group of 13 in these gestures, as the entrances have 11 or 12 different pitches (depending on enharmonic equivalency) occurring over six different gestures.

5.9 Movement 9: Lost Bells (Echo) (Duo alternativo: Sounds of Bones and Flutes)

The realization of the numerological motto "7 times 13" in "Lost Bells" is one of the clearest in any movement of *Black Angels*. Except for the bowed tam-tam harmonics and the first violinist's maraca passage, the entirety of the movement is seven groups of 13 notes. The first group of thirteen notes is the fading out of the trio from the previous movement; starting with the

[122] Adamenko, *Neo-mythologism in Music,* 199.

measure of the tam-tam entrance, the first violin has seven notes, the viola has five notes, and the cello has one note. From there, each entrance is delineated clearly by the notation. Crumb did not continue the staff lines between every entrance, so every separately notated figure has 13 notes; three entrances of the cello, two entrances in the second violin, and one entrance in the viola. These entrances, combined with the continuation of the trio from the previous movement, total seven different passages of thirteen notes in the movement.

5.10 Movement 10: God-music

Crumb's application of the motto "13 and 7" in "God-music" is also quite clear, with or without the help of the sketch material. On Draft A, Crumb wrote "[13 bars + 7 "coda"! also 13 (5/16) bars and 7 (5/32) bars!]" Although he mis-wrote the second time signature as 5/32 instead of 8, the application holds true. The first 13 measures end in a long fermata, leading into a shorter, 7-measure long coda. Although the time signatures change throughout the movement, there are a total of thirteen 5/16 measures and seven 5/8 measures.

5.11 Movement 11: Ancient Music

In "Ancient Music," the motto "7 over 13" is most immediately clear from the visual aspect of the score. The two violins, holding their instruments like mandolins, each use a different extended technique involving a glass rod. The first violin plays what Crumb calls the "bottle-neck" technique, where a rod depresses the strings and slides between pitches, and the second violin taps the strings with the rod at certain pitches. There are seven pizzicato "bottle-neck" events in the first violin that occur over thirteen 10-tuplet groupings of tapped notes in the second violin. Each event in the first violin is indicated by a downward arrow showing the metric alignment with the second violin. The roles are then flipped; after one unison beat with both

violins playing the 10-tuplet figure, the second violin has seven "bottle-neck" before the end of the movement and the first violin has 13 10-tuplet figures. With the shared central grouping, each violin plays a total of 14 10-tuplet figures.

5.12 Movement 12: Ancient Music (Echo)

The numerological motto for this movement, "13 in 7," is visually clear in the score, but the realization of "7" is challenging to hear because of the metric uncertainty for the listener. As an echo of the previous movement, the three upper strings all play their instruments with the "bottle-neck" technique. There are 13 different "bottle-neck" gestures in the movement that occur over the course of 7 measures.

5.13 Movement 13: THRENODY III: Night of the Electric Insects

In the final threnody, each half of the numerological motto "7 times 13 and 13 times 7" is realized in a separate manner. The first half, 7 times 13, completed in the first three systems; there are seven different instances of durations of 13 seconds (for instance, the first entrance of each instrument in the first system).

The realization of the second half, 13 times 7, is much less straightforward. "13 times 7" is realized as a combination of groups of seven beats, seven notes, and the spoken number seven. The first two instances occur in the second system, a *fortississimo* figured repeated 7 times by the tutti quartet and then a *pianississimo* figure repeated by the viola and cello seven times. The third and fourth instances occur in the cello and first violin, respectively, as both musicians count to seven in Japanese. The following five instances are groups of seven notes in a solo cello line, played underneath the trio's "thimble music." The tenth instance is a seven-second-long bowed tam-tam harmonic before the final gesture. The final three instances all occur in this final

gesture; it is a group of seven notes, during which "shichi," the number seven in Japanese, is whispered twice.

Similar to the second threnody, the sketches for this movement show a different original realization of this motto. More clear instances of seven, such as the maraca passages, are shown in this movement in Draft A along with an interjection of the *Dies Irae* sequence on bowed crystal glasses. Even in this draft, however, Crumb only labels 6 groups of 7 in the movement, not 13 groups. My reading of this movement is an attempt to find the numerological motto in the movement but realize it a stretch to do so.

Viewing the mottoes in the final work as compared to the sketches reveal a few movements where Crumb's original concept did not hold true to the end of the process, notably in the second and third threnodies. This is one of the many reasons why Crumb's "magical numerological mottoes" are difficult to hear; when they are present, they are underlying structural guidelines for the movement more than musical events to be noticed by the listener. Even when the original application of these mottoes was incomplete, however, they had clear influence on the structure of the movement, such as the fourth group of seven repeated figures being the climax of the second threnody or the two maraca passages in the third threnody. The remnants of the mottoes are present throughout these movements, saturating the work, or at least adding to the saturation of the work, with instances of the numbers 7 and 13.

Chapter 6 Some Brief Conclusions and Notes on Future Research

Since its premiere in 1970, George Crumb's *Black Angels* has remained immensely popular with performers, audiences, and the general public. Crumb believes it is his most performed work, yet, until this project, there has never been a large-scale study devoted to exploring the quartet.[123] Throughout this dissertation, I used archival artifacts to discuss the history, perform analyses of, and investigate performance practice issues of *Black Angels*. The research I presented will be of interest to those in the fields of sketch study and those interested in Crumb's music in general.

As the first project to explore the source material and other archival documents for *Black Angels*, I began with an examination of Crumb's sketching process in general using the many different types of documents found in the George Crumb Papers at the Library of Congress. My first chapter lays out the results of this work: a new understanding of the everchanging purpose of the first draft of *Black Angels*. My work shows that this draft document was particularly important throughout the entire process and that various layers of this document show the work at different stages of composition. The specifics of Crumb's sketching process I deciphered will provide a basis of understanding for future scholars entering his archive and examining his working materials.

Much of my research was led by the correspondence I found in the Library of Congress and in the Gilbert Ross Papers at the Bentley Historical Library at the University of Michigan. Using documents from these archives, as well as the Seymour Shifrin Papers at the Yale University Library and the Salvatore Martirano Music, Personal Papers, and Sal-Mar

[123] Author's interview with George Crumb.

Construction at the University of Illinois Libraries, I pieced together a history of the Stanley Quartet's commissioning practices and specifics around how they commissioned Crumb for *Black Angels*. This history was previously unclear; due to personnel changes, even the published score has the incorrect name for a member of the premiering quartet. After tracing the timeline through documents and the oral history I have collected, I provided a detailed account of before, during, and after the compositional process. This includes new information about the Stanley Quartet's deliberations around new commissions, Crumb's sketching timeline, and preparations for the premiere performance.

In addition to working with archival materials, throughout my research I have collected firsthand accounts through interviews, which were referenced throughout the dissertation, and pursued formerly missing archival artifacts. As a result, the bibliography I use is the most comprehensive collection of primary sources related to *Black Angels* to date. As part of this project, several documents have been re-discovered: recordings of the premiere performance by the Stanley Quartet and an early performance by the Bowling Green String Quartet were both found and digitized as part of this research. Previous studies have referenced Crumb sketches to varying degrees, but this is the most significant use of archival materials in Crumb research. These interviews and archival recordings are at the heart of my third chapter, which reviewed the Stanley Quartet's preparations for and collaborations around the premiere of the work. The amplification technology used in the premiere and other early performances raised a question of performance practice, which I put in the context of more recent recordings and performances.

In my two final chapters, I took a closer look at the final work through the context of the sketches. In a discussion of the form of the work in Chapter 4, I showed how two different temporal structures evolved out of the symmetrical organization of movements. In Chapter 5, I

explored the realization of the "magical numerological mottoes" Crumb claimed were key to each movement of *Black Angels*, showing both successful and abandoned attempts at structuring the form of various movements around these mottoes. Outside of the sketches, I considered *Black Angels* in the context of Vietnam War memoirs and the work of literary historian Paul Fussell. I provided an alternate reading on the interaction between the two forms within the work, and the temporality that results from that interaction, after discussing a similar temporality in Tim O'Brien's *The Things They Carried*. These analyses build on those from other scholars; the information in the sketches provides a new angle to understand the complex organization of the piece and each movement that otherwise would be difficult, or at times impossible, to see.

In my continuation of this research, I plan to first expand in directions I discussed in my dissertation proposal which were outside the scope of the final dissertation. Specifically, I would like to continue my work on issues of performance, performance practice, and the relationship of amplification technology and the cultural context of the composition. I plan to continue my research into the performance of the work in various ways: through continued research into archival recordings and older methods of amplification, through consideration of the work as it relates musicological research into acoustic violence, and through an examination of the timbre of the amplified string quartet in the context of the Vietnam War and the general societal upheaval in the United States in the late 1960s.

I also wish to take a more detailed look at the sketches for the works written before and after *Black Angels*. In expanding the scope of my archival research, I will look for patterns to further understand Crumb's compositional process. I hope to not only provide a detailed reference point for future studies on Crumb's sketches, but also explore connections between all

of Crumb's pieces and work to understand his musical language, style, and process throughout his career.

This dissertation provides the foundation for future archival study of Crumb's works. Although I look at *Black Angels* specifically, my process and research is applicable to many of Crumb's works. My analysis of his use of the documents applies at least to the works written in the near vicinity of *Black Angels*. Crumb's composition log shows he completed several of the steps I discuss in other works; the methods I presented can also be used for *Night of the Four Moons, Vox Balaenae,* and *Ancient Voices of Children*. While Crumb passed away in February 2022, his works continue to enchant researchers, performers, and listeners alike. It is through the continuous study and performance of his music that we work to honor him, his legacy, and his unique stamp on American culture.

Appendices

Appendix A: Collected Interviews with George Crumb

A.1 Introduction

I first met George Crumb in the summer of 2016, a few months before his 88th birthday. When we scheduled the interview, he insisted on picking me up at the local train station; my first glimpse into the celebrated composer's life was a roundabout, narrated tour of Media, PA, where he has lived since the early 1960s. We eventually arrived at his home and headed to his basement studio after greeting his wife Elizabeth and their dogs (Zeus, SmartyPants, Katie Dog, and a foster named Alice). I anticipated an hour, maybe two of his time. Regardless of anecdotes citing his generosity, I was forewarned of Crumb's reticence to discuss his own music or process, preferring to discuss the "great masters," Debussy, or Bartok. That first day, however, Crumb was profuse. He had me stay for lunch, dinner, and drinks - I spent about 10 hours with him and his family, nearly missing my return flight. In the ensuing years, Crumb has been equally unsparing with his time and thoughts. "Gin with George" is the product of dozens of hours of conversation. I have carefully and consciously curated selections from formal interviews in his basement studio, polite dinner conversations, quick phone calls, and banters over drinks on his porch.

These excerpts, combined to simulate a lengthy conversation, give an image not only of George Crumb as a composer, but also as a pedagogue, father, and gentleman. The text will be of interest to scholars, composers, performers, and enthusiasts; topics discussed range from musical – Crumb's own music, especially *Black Angels* and more recent works; the relationship between

notation and music; the music of other composers (Mozart, Beethoven, Mahler, Bartok, Chopin, and Debussy) – to general: literature, dogs, and drinks of choice (not in order of importance!). Towards the end of our final interview, we paused our discussion to listen to a recording of the premiere of *Black Angels* by the Stanley Quartet in 1970, with Crumb conducting. I recently had discovered and digitized the recording and was presenting it to him for the first time. This interview ends with his first impressions upon hearing that recording.

In preparing this document, I have tried to preserve the experience of being in the room with Crumb, including interjections from family members (canine and otherwise). Since Crumb encouraged me to record my time with him, the entire text is presented as spoken; comments, clarifications, corrections, and citations are unobtrusively placed throughout in footnotes. Crumb often speaks anecdotally about other composers; when necessary I provide clarification of mis-quotes and other historical comments. Our conversations often moved freely between talking, singing, and playing the keyboard; visual and aural musical examples are included as much as possible. In the text itself, my editorial apparatus was minimal; I eliminated false starts of sentences (where applicable – some clauses remain in the text). Crumb's verbal mannerisms, where not destructive of clarity, are included.

A.2 Interview

Joshua: Shall we start at the beginning? When you're composing, what comes first?

George: It's pretty fluid, and it takes a long time for me to get an idea of the whole structure of a piece. Especially a piece that has so many sections and has those divisions, you know. Sometimes, as far as the sequence of ideas, that can be anything almost. It can be a rhythmic idea, an actual motif, it can be an idea of a texture. Like the opening of *Black Angels* is not exactly melody. It's not exactly anything except just a ferocious

texture. It can be color, it can be timbre – all of those things could be separate little items. Who was it – it was Thomas Mann I was reading once. I guess it was in *Death in Venice* and the main character there was a poet. I forget his name in the book, but he said that creating literature is like having 10,000 separate tiny inspirations and putting it all together. Plus, the music, too, I think. Except for Mozart. I have a friend who says, "that Goddamn Mozart." That was near his favorite expression, because he couldn't tolerate Mozart's facility.

Joshua: I think we all wish we could work that quickly!

George: Yes! [laughs] Well, it's the opposite for me. It's torturous, really, composition. It's deadly slow, you know, it's painful.

Joshua: Is it because your works are so intricate?

George: Well it takes me so long to find what the structure is. I'm revising and toiling away all the time. I sketch a lot.

Joshua: I've noticed looking through the *Black Angels* sketches that a lot of the music wasn't written out until that first draft. Is that typical? It was especially prevalent in the shortest movements.

George: Well, in some cases, I'd had an idea of the quality of the music, the texture or the general sense of the music, and I hadn't found the notes quite yet. Do I want to say a movement that… it was suspended or has a certain quality. Some adjectives might describe the music, say "dream-like" or like the opening part is kind of furious…a strange furious!

Joshua: Do those adjectives affect your choosing of titles then?

George: Sometimes they can come together. You use titles…I don't know the sequence of things. Sometimes you have a title – I think I tried to draft out the sequence of titles for separate pieces as I recall – and then looking for music that would transition from one to another and make sense, you know.

Joshua: Do you find other connections between literature or poetry and music? Or do you draw lyrics and titles from it?

George: Yeah, a lot of my titles were kind of derived from Lorca. They might have been an image in Lorca or, you know. I think there's probably a couple of the titles in *Black Angels*, I don't remember exactly what...probably *angeles negros,* I guess.[124]

A fellow student that set some words of Lorca poems. Edward Chudacoff. I read Lorca poems, and I got kind of attracted to it. I went to a bookstore and found a book about Lorca, some of his poetry.

Joshua: What is it about Lorca that really hooked you?

George: I don't know. One thing I liked about it was the utter simplicity of the language. Even with my little Spanish, I could almost read and understand the Spanish versions. But it was so unusual. It wasn't the usual way poets handle language. It was so direct, you know? Yeah, I like that.

Joshua: So I have copies of all of your sketches for *Black Angels* here.

[124] The title of *Black Angels* came from Lorca's poem *Reyerta* ("The Flight): "Y angeles negros volaban/por el aire del poniente./Angeles de largas trenzas/y corazones de aceite." ("And black angels were flying through the air of the setting sun. Angels of long tresses and hearts of olive-oil.") In Crumb's copy of Lorca poetry from the 1960s and 70s — *Lorca: Selected and Translated by J.L. Gili* (Penguin, 1960) — the words "black angels" are circled lightly in pencil, with a line drawn to the word "Images" written in the bottom margin. I am very thankful to Steven Bruns for providing me with photos of this book.

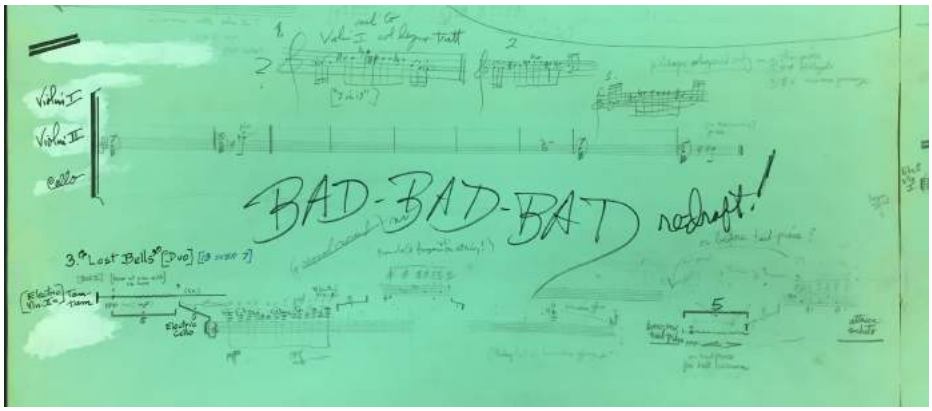
George: Oh, really? Wow. Wow! Oh, let's see here. Good Lord! I haven't seen these in decades. I forgot they even existed.

Joshua: Here's one where you're working out titles, it seems.

George: You know, titles are such a funny thing. I used to have nightmares, you know. I have to confess this: overhearing a couple of aficionados for new music and one says, "Oh, you know, that Crumb, he has some of the best titles." The other aficionado says, "I wish his music was as good as his titles," you know? [laughs]. That is a warning to me not to put too much into it. Don't rely just on the titles.

[Holding up a mostly blank page] That's a great sketch!

You have to look a lot further than this to really see what I was doing. That can happen in composition, as you know, I'm sure. You know, if you look at some of the Beethoven sketches, you see his first sketches. It looks almost like it's not a real composer. "What? Is this Beethoven? Really?" Look what he ended up with, you know? This is there. Some things are...some things are there. That ended up in the piece. Now this looks more like the piece. Yeah, this is a later sketch. Yeah, it's the whole first draft. It's right there. And I didn't write the…oh look. Bad, bad, bad!



Appendix Figure A.1 Page 3, second system from the first full draft of Black Angels[125]

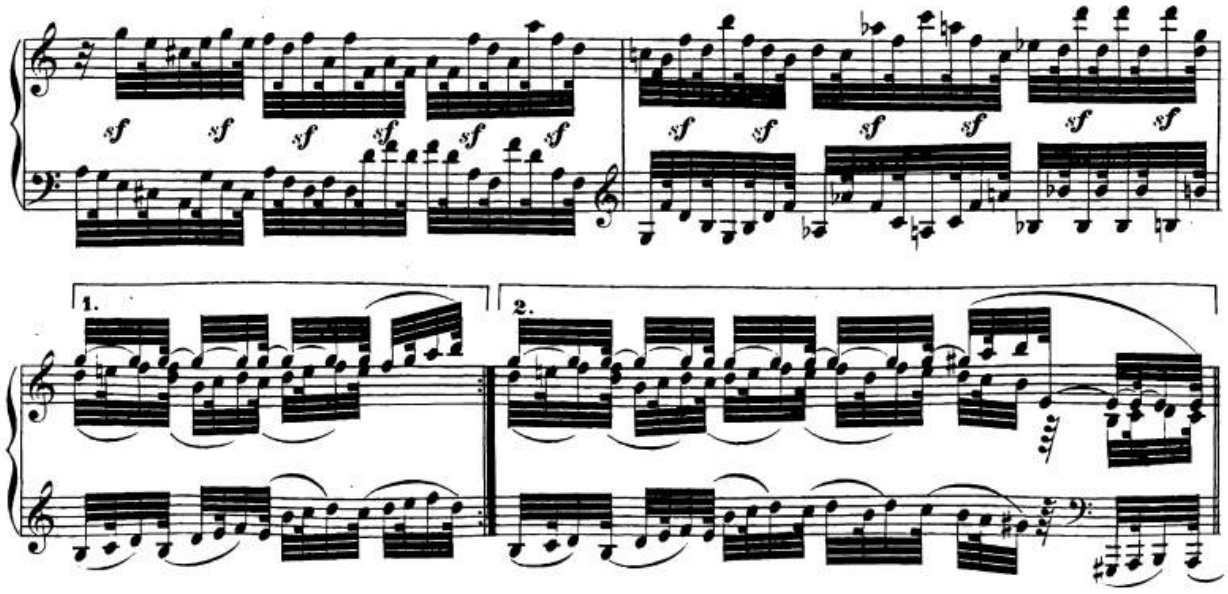
That's not very promising, is it? I'm very slow. I make lots of mistakes. *Danse macabre*. You know, a lot of that ended up in the quartet. The Schubert quotation. Yeah, some of it's there. But honestly, I'd forgotten I made that many sketches, even. Here I'm getting on a kind of a form for the whole thing.

Joshua: There's a lot of sketches like that, where you have the numbers one through thirteen and you're pairing and organizing them. There's also sketches where you're working on the stave organization. Notation is such a famously integral part of your compositions. What typically comes first in those pieces? Do you think of the music first and figure out the notation afterwards or vice versa?

George: You know, I wish I could answer that but I really don't know. Sometimes you have a kind of an idea what the notation might look like. And I had fun with that, especially in the piano pieces, you know, the *Makrokosmos*. That's somewhat special, notations of that kind. It seemed right to me but I can't say why. It could easily be written out too on the level, you know?

[125] ML31.C87, Box 1, Folder 1, George Crumb Papers, Library of Congress, Washington, D.C.

But, anyway, I've always loved notation, even if it's quite traditional. With all the traditional composers. And, I've noticed that if the music is good, the notation always looks beautiful, you know? Chopin, for example, does great, you know. And Beethoven, particularly in the third period, where he uses diminished note values, and you think of…well, here's Beethoven's third period piano sonatas. It's even better in the later quartets, you know, where the note values are so small and the pages are so black. But there's some of that here. Here's a Beethoven, Opus 111. Here it is right here. Look at that black notation. I just love it…look at that! [laughs]



Appendix Figure A.2 Beethoven, Piano Sonata No. 32, Op. 111, excerpt from II. Arietta

Joshua: You tend towards wanting very thick pages that have a lot of ink?

George: Yeah. I guess sometimes you want to. There! See, there are other pages that are much lighter. The eighth note is the fastest note there. But look here, again, the *Hammerklavier*. Look at those pages. Look. It's partly in the choice, I suppose, of the rhythmic values. And the speed and so forth. But his notation is beautiful. I've always

loved that, even Opus 1 and 2. It looks good on the page. This is the last volume so I can't pull out an earlier sample.

Joshua: You tend to use really small note values. Why choose to notate that in that way? It certainly is more difficult for you, since you do everything by hand.

George: I don't know. It's so subjective; I don't know that one could explain it. If it looks right to you, you know? Using smaller note values with that black on the page, creates a certain intensity. Maybe that's part of it, you know?

Some of the Chopin nocturnes, those black pages look so decorative on the page. Certain passages and the way he interlocks things, to bring out certain notes. There's a kind of a figuration going on but he stresses certain notes within that figuration by a separate stem. You've seen that. In the separate part, linked to another system.

I think if it looks right to you on the page emotionally…a slightly more complex notation suggests another aspect of the music. Whereas, a more open notation maybe is a happier mood or something, you know.

Joshua: That's why *Black Angels* is all so complexly notated? [laughs]

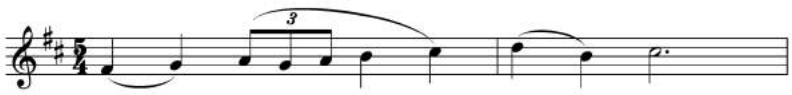
George: [laughs] Right. It could've been notated by spiders, you know.

Joshua: I've heard you say that the numbers seven and thirteen started to work their way into the piece. How does that happen? What was your process like?

George: Yup, yup, uh huh. And then I structured it in. Although, if you asked me how it carried out in each part I couldn't answer now. Because the piece is almost 50 years old!

But let me put it this way. I've been influenced by Bartók a lot. He loved the quadruplets or loved time signatures with five-something. I've taken it up to sevens. I've used sevens a lot with that...but, at times, signatures with 13-something or 11-something, you know? It came out of my early Bartók influence. I don't know if I can say anything more than that. They just open up the music in a way, you know?

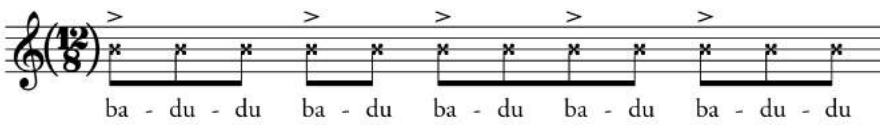
And you know, that's really so recent. Tchaikovsky's sixth symphony has one of the earliest movements entirely in a quintuple measure. Remember this? [playing piano, theme from Tchaikovsky Symphony No. 6 *Pathetique*, 2nd movement]



There's not much else like that. A couple of other Russian composers about that time did it. I think Rimsky-Korsakov has a couple of songs that are in weird meters, you know. But that then became part of the music of Bartók's time.

Joshua: And then went into yours as well.

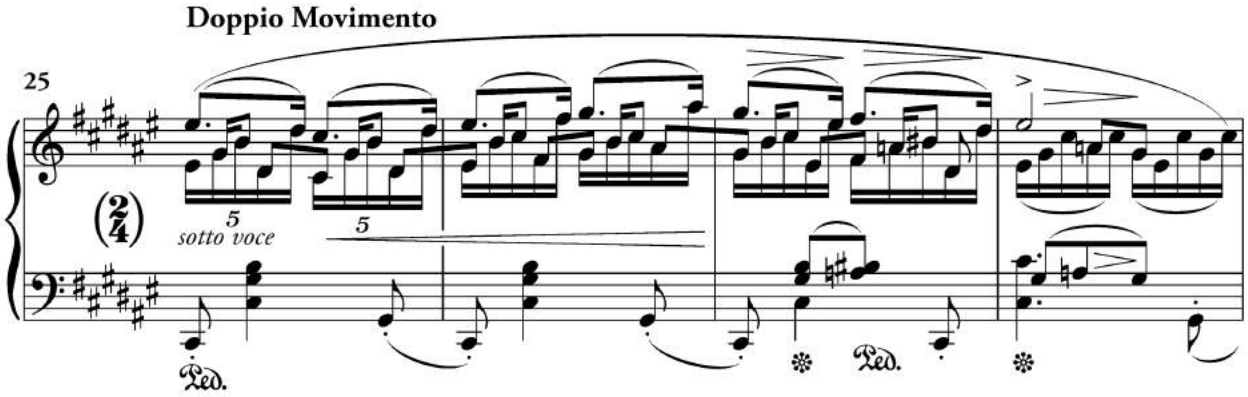
George: Yeah. I'm fascinated with rhythmic things anyway, you know. I love Bartók's micro divisions within a major. Like, three plus two plus four plus three over eight! [singing]



That was a particular invention I appreciated in Bartók. It just precepts the rhythm incredibly.

Joshua: Is it the unequal divisions of odd numbers that really attract you?

George: That's one part of it. It escapes the normal. You know, duple, triple, quadruple, dominates so much of music. Although Chopin is beginning to break that already. There are groups of five all over the place in Chopin. Like this. Do you remember this? Oh the seat's too low! I can't even hit the pedal! [playing piano, mm. 25-28 of Chopin's Nocturne Op. 15, No. 2]



One, two, there, four, five. One, two, there, four, five. That's wonderful. Oh, also Tristan has five-four!

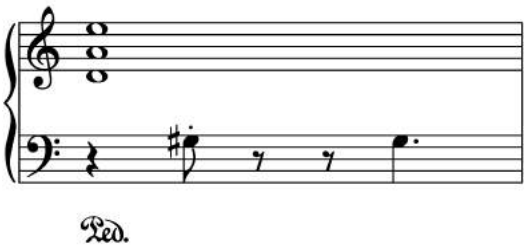
Joshua: What about the 13s in *Black Angels*? There are a lot of earlier examples of 5s, but 13 is a far way from that.

George: Yeah, the 13 movements were because I had written an earlier work, you know, *Eleven Echoes of Autumn*. I thought, "Maybe this will be a proper place for 13."

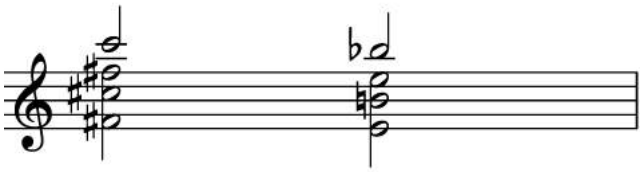
Joshua: How did the 7 come to combine with the 13? Like in the instance of the tritone in *Devil-music*?

George: You mean this one you mean? [playing piano]

George: Tritones are another thing I stole from Béla Bartók. And it's all over my music. The tritone complication in harmony. It could be just one, like: [playing piano]



Or it could be on the other side, you know? It could be something like: [playing piano]



I use structures like that a lot.

Joshua: Is that a common process of yours, to choose a harmony and then put a tritone in somewhere?

George: I just hear it. I hear it as a special chord, a separate chord.

Joshua: Do you hear your music in your head before writing it down?

George: Yeah, sometimes the harmony. A lot of it comes from improvisation, mainly. But, you know, your fingers are finding sounds that you like or that are special through language and that. It's all over my work, I have to say.

Joshua: What is your revision process like? It seems from the sketches that you often work out from a really small amount of heavily revised material.

George: It's true. I revise a lot. I expand, but sometimes it goes the other way. You know, I guess that's pretty normal for composers to do. The form is not always so obvious at the beginning. You have to discover what that's gonna be. But I believe composers like Mozart and Beethoven…I think a lot of their compositional writings came from improvisation which is rare, more rare.

Joshua: One thing about the sketches I find interesting is some movements are written almost entirely beforehand. But some of the movements, there's nothing until the first draft. Are there certain movements you just have and don't feel the need to write out until the draft?

George: Or maybe I haven't found it yet! [laughs] You're waiting, you know, for some kind of an inspiration. And, maybe, it doesn't always come out of sketch pages. Maybe something hits you and you sort of write it out in some version, as best you can.

It's sort of mysterious. I've often wondered how composers really work. How did Bartók really function? Again, I suspect, he was such a pianist. He probably found a lot of ideas through his fingers. I bet you. And, here with my swivel chair, I go between the desk and the piano. Sometimes I never turn around towards the piano, you know, you're on a way of thinking and you don't need it. And other times, maybe, it promotes the idea to play some.[126]

Joshua: You often speak about how you've steeped yourself in the classical tradition. Other than Bartók, are there specific composers which you think have affected you more or less?

George: Oh, many, many, I think. Bartók is especially important. The coloristic side of Bartók too. He invented so many things and really mined the whole possibility of glissando and of the Bartók pizzicato and all the special things like that. Influences can come from much older music too. The sense of poise in the composition in some of Beethoven's greatest works and you wonder how it works.

My music generally doesn't have much counterpoint as such. There's some of it in a couple later pieces but nothing like, you know...but yet, I love Bach. I played all the

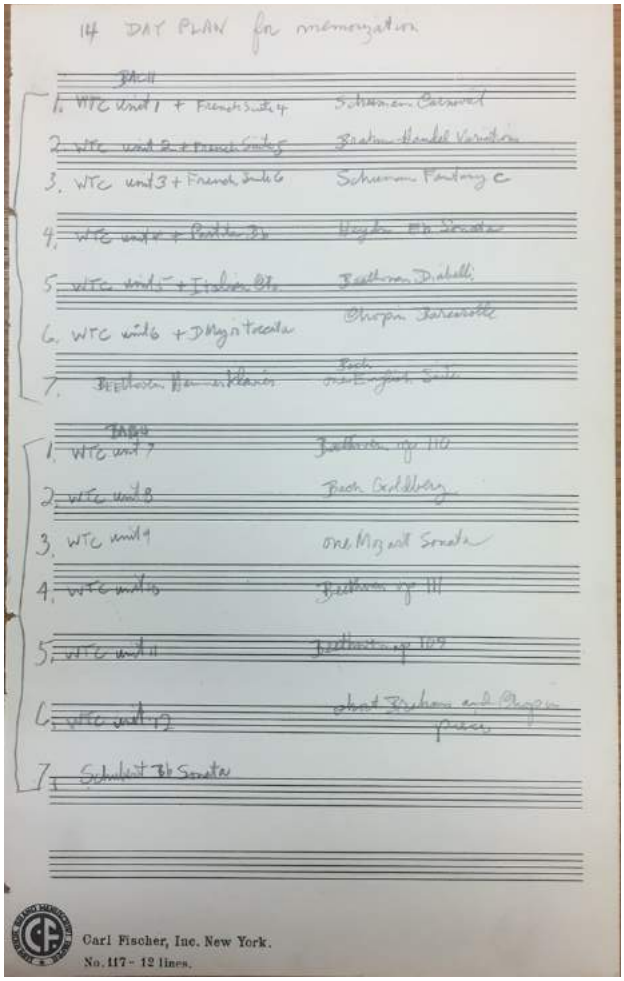
[126] Bartók and Crumb likely worked much in the same way. In 1925, Bartok said his composition occurred "[b]etween the desk and the piano." For a more detailed analysis of Bartók's process and sketches, see Somfai 2004.

Well-Tempered Clavichord when I was a kid.[127] But it didn't carry over the influence of counterpoint.

Appendix Figure A.3 Crumb's studio in his home in Media, PA in 1985 (top) and 2016 (bottom).[128]

[127] In Crumb's archive at the Library of Congress, there exists a "14 DAY PLAN for Memorization" on the back of a form sketch for *Vox Balaenae* (1971) which includes an entire book of the *Well-Tempered Clavier*. It is unclear whether this is Book 1 or 2 (or both). To say the list is formidable is an understatement; it is reproduced in Example 4.

[128] The photo from 1965 is from Scrapbooks, Volume I in the George Crumb Archives at the Library of Congress (ML31.C87, Box 29, George Crumb Papers, Library of Congress, Washington, D.C.). The photo from 2016 is from my first visit to Crumb's studio.



14 DAY PLAN for memorization

BACH
1. WTC unit 1 + French Suite 4 — Schumann Carnival
2. WTC unit 2 + French Suite 5 — Brahms Handel Variations
3. WTC unit 3 + French Suite 6 — Schumann Fantasy C
4. WTC unit 4 + Partita B♭ — Haydn E♭ Sonata
5. WTC unit 5 + Italian Cto. — Beethoven Diabelli
6. WTC unit 6 + D Major toccata — Chopin Barcarolle
7. BEEthoven Hammerklavier — Bach one English Suite

BACH
1. WTC unit 7 — Beethoven op 110
2. WTC unit 8 — Bach Goldberg
3. WTC unit 9 — one Mozart Sonata
4. WTC unit 10 — Beethoven op 111
5. WTC unit 11 — Beethoven op 109
6. WTC unit 12 — short Brahms and Chopin piece
7. Schubert B♭ Sonata

Appendix Figure A.4 Crumb's "14 DAY PLAN for memorization" and transcription (mentioned in footnote 127).[129]

Joshua: Is there a certain way you group your output? Do you think you went through certain phases, or can it all be categorized similarly?

George: I think from the 1960s, you know, it becomes, pretty much the same news. Sometimes the different elements come into it as you move along. I'm thinking *Five Pieces for Piano* was the first. There's a transitional work called *Variazioni* for

[129] ML31.C87, Box 5, Folder 4, George Crumb Papers, Library of Congress, Washington, D.C.

orchestra. I think it's one of my best pieces, but is not played very much [laughs], you know.

I was really influenced by Dallapicolla, you know, composers like that to a great extent. But, also, early on, when I was a student in Ann Arbor a lot of the composers were looking into exotic musics of India, Indonesia, North Africa, you know, anywhere. And our teachers weren't ever interested in that. It was before the great move towards world music. I think composers now are all in touch with that, to some extent or another.

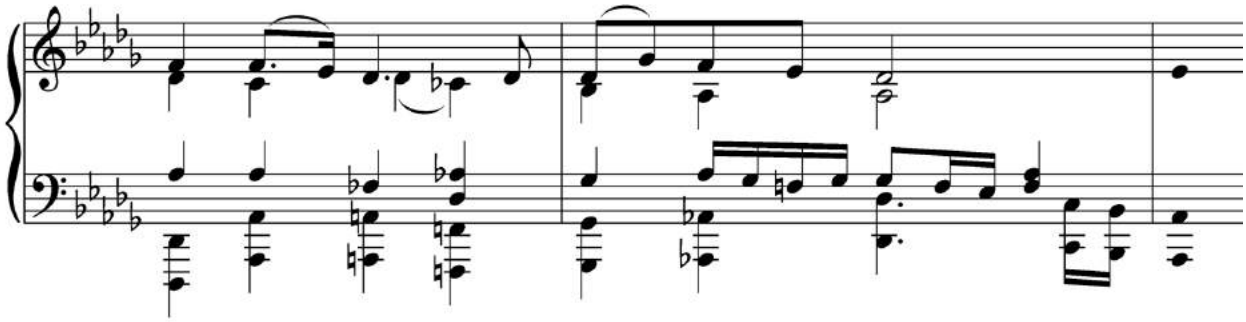
Joshua: Did that play a part in *Black Angels* at all?

George: I think so. I'm not sure how exactly, but there are things that are not traditionally Western in *Black Angels*. And some rough sounds like the pedal tones that players do. Or even with the super glissando. Well, some don't like it, the first piece, you know, was going way beyond Bartók's glissando. I think it's all kind of a pattern.

But no, I don't think I had phases of output. Whatever it is, it's all interrelated, I think. You know? I'm thinking Stravinsky sounds like Stravinsky, whatever period it's from. And John Cage probably sounds like John Cage, whatever he's doing. [laughs]. Even Beethoven, you know? When he's writing the Ninth Symphony, he's in his third period. He reaches back to, Ode to Joy. That was a student work of his. He got that way early! The famous tune.

Joshua: In the past, you've mentioned Bartók, Messiaen, Stravinsky, Mahler, and Beethoven to different extents – are there other composers that you feel have influenced your work?

George: Stravinsky less, but Mahler a lot. You know, I'd never written a passage that sounds exactly Mahlerian. But there's something about his music. The breath sometimes…it's like the adagios are more adagio than a lot of other composers. I'm thinking of the Ninth Symphony, you know, this one. [playing piano: Mahler, Symphony No. 9, IV. Adagio[130]]



Some marvelous stuff. My music…it's concentrated. It is very concentrated music. But as a kid I didn't even know Mahler. I didn't know Mahler until I was a student in Michigan. And I didn't get it from my teachers or my classmates. They said, "This is such long-winded music." And I couldn't explain it. I said, there's something in this music that I love. None of the teachers talked about Mahler. It wasn't many years after that when Bernstein played so much Mahler he made it almost like hearing Beethoven. It dominated the concert halls and it's never left the concert halls since then, you know.

[130] This is transcribed as Crumb played it but is not a fully accurate realization. Note the repeated Dbs in the melody line (Violin I/Violin II) and figuration in the second measure (originally in the Cello I/Cello II parts).

He read the scores and he took it literally. So when Mahler wrote the high clarinet parts, and Mahler would write a descriptive word, what they could sound like -- what's the German word for something like sassy? There's a special word. He wanted that shrill, particular sound you can get. You get it on any clarinet. An Eb xxx brings it out automatically if you're high up there. There's a word used for that, and now I can't think of it. But Mahler wrote out all those things, and sometimes the dynamics look crazy. There're pianissimos down here, and then an instrument up here is really stabbing notes!

It's funny how that goes. I didn't know much of Charles Ives either when I was younger. Not until in my 20s, it was. There were recordings.

Joshua: Are you a fan of Ives?

George: I like Ives, yeah, many of the pieces. Like the violin sonatas, and a couple of the orchestral pieces. And the songs. Jan DeGaetani was a big favorite of mine, and she did it with Gil Kalish. A lot of those songs, there were some wonderful songs there, you know? Yeah, so I liked that. I didn't used to like it. Even when I was out in Colorado. We had somebody on our faculty there who was always praising Ives and I couldn't understand what he was talking about. But when I got to know these pieces of Ives, I said, "You were right, you know? I was wrong. This guy is something." So that opened Ives up to me. It's funny the way that goes, you know. And when I was very young I didn't know there was composers after Mozart! I thought that was all the music there was. My parents played clarinet and cello. My brother played flute so, you know, we'd play a lot of those tunes.

That's why I quote the Mozart Clarinet Concerto in my new piano piece. Because of my father, I would hear that in the house. He was a wonderful clarinetist. I don't know how he learned that in a little town like Charleston. He was capable of doing it, playing in major orchestras. You know, my father moved to Charleston when he was fairly young. He was from Ohio and grew up in Cincinnati.

Liz: Why did he go to Charleston?

George: I don't know, Liz. He was a little shy. He was a tremendous clarinetist, and his talents were way beyond what playing in the Charleston orchestra, way beyond that. Because he was trained in Cincinnati, and then was offered a job at the Cincinnati orchestra. Which was not the New York Philharmonic, but still was quite a respectable orchestra. I think he liked small town living, so he came there, and my mother came there. Her father was in Alaska for a long time, and my mother was born in Spokane, Washington, way out there. But they came back East, and they ended up in Charleston. It's the American story. [laughs]

Liz: [laughs] George's mother was a cellist, you know. Well, she was second chair in the cello section, wasn't she?

George: Yeah, the little orchestra in Charleston.

Liz: And his dad played the clarinet. I played the guitar for a while. See, my dad liked country music, and he wanted me to play the Hawaiian guitar so he could accompany me with a Spanish guitar. So I started the Hawaiian guitar for a little while, and the

only thing I wanted to play was classical music, and he was devastated. They finally got me a piano for $50 or something.

George: That was probably back about 1940.

Liz: Now, wait a minute. That piano…they thought it was yours, and it's now in the West Virginia Hall of Fame. And it's mine. Oh, I'm serious; it was my piano!

George: That's what low standards they have in West Virginia! [laughs]

Liz: And my parents paid $50 for it, as I remember. Of course that was a lot of money, then. Probably like $200 now or something. It's still cheap. [laughs] You know, one of the funniest things was when we lived over in Berlin that year. Here I was with this five year old kid. I didn't know what to do with myself! So I took her to the park every day, and of course, she picked up German so fast.

George: At five years old!

Liz: Her German was just -

George: Impeccable.

Liz: She spoke exactly like a German. We were visiting somebody, and somebody came in, and said, "What are you doing with this German child?" So of course, when she got back to the United States, everybody said, "Oh, Ann, speak German for us." She was six years old by that time. She has this look on. She says, "I'm not in Germany

anymore." And that was that. A six year old! She wasn't in Germany anymore. Why should she speak German? [laughs]

Joshua: What was your time in Germany like?

George: Well, I studied piano. I had about two or three lessons with Boris Blacher. By that time, I was in my Doctoral program in Michigan. I didn't want any more composition lessons. But I had to study with somebody. Originally, I think I was supposed to go to Hamburg, and then a German friend we met at the University of Illinois said, "Oh, go to Berlin, It's a much more exciting town."

We found it an exciting town, too. It was the hub of the whole business! We'd go over in the Russian section; we were before the wall. We just took the S-bahn over. The opera was cheaper, and it was the best opera in Berlin, on the East Side. We saw *Wozzeck* there. We'd never seen *Wozzeck*. Everything was cheap. Everything was four times cheaper.

Liz: It was four times? Dear, aren't you exaggerating?

George: No, Liz, no I'm not at all.

Liz: That, that sounds like a lot.

George: I don't know how those things work, but this is a true story.

George: So, we would go over there. You could have a tremendous meal at a restaurant, or you could go to a bookstore, or we could go to the old Edition Peters of Germany and

buy music for 20 times less than in the United States, because German rate was 4:1 and the west German mark was roughly 5:1. It was a huge distance between what you'd pay for a score in New York. It was phenomenal. So I loaded up on all kinds of stuff. We brought back music of all kinds. From Peters Leipzig, the original Peters. I always knew the *Bartered Bride* overture, but Liz and I were in Hamburg and we saw the whole opera. Yeah. We came back and then ended up in Colorado.

Joshua: Why'd you leave Colorado, if you don't mind me asking?

George: Well, I had a job as a secondary piano teacher there. And the guy there, you know, I suppose he was a decent composer by his own rights, but he really didn't want anybody else in the department.

Liz: He wanted to be the composer.

George: You know, who wants to be a secondary piano teacher?

Liz: I loved Colorado.

George: Yeah, right. You know, and Liz was so blissful, and when she learned we were leaving...

Liz: Oh. [laughs]

George: Then we went to Buffalo for a year. There was a special program there. For composers and performers like Paul Zukofsky, and all these crazy people, you know? Paul was tremendous. He was the first one to record that *Black Angels*. Listen, Paul

was so, so strange but he was an incredible musician. Gil Kalish used to play with him all the time, and even Gil finally had to give up with Paul because he was such an irrational person, you know. He wanted to get along with Paul.

Liz: So where did he live, recently?

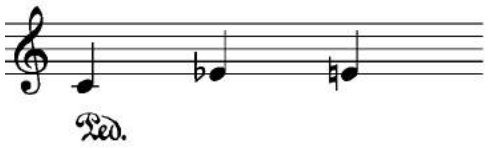
George: Well, he lived all over the world, Liz. He lived in Iceland for a real long time. He lived in Canada for a while. It was like he was looking for some place. His father was a rather famous writer, you know. One of the avant garde writers of his time. Paul came to our house when we lived Buffalo. Where we had all these people coming together. We had some crazy composers from all over the place. We had lots of performers that were everywhere. I played several concerts with Paul. I did the piano. We did my early piano/violin piece, *Night Music*. Well, Paul glued onto us. When I first went to Buffalo, I got to know Paul pretty soon. First he looked at me, "Who are you?" You know? And then he liked my *Night Music I* when he heard it, and wanted to play concerts with me. So we did several.

Joshua: What else did you play other than *Night Music*?

George: We did Ives. You know, those recordings that he made with Gil Kalish were wonderful recordings. But he put me onto Ives, and there were some other things. Who else? The guy in Chicago who was out there for a long time? Ralph Shapey. We did something of his. We did at least four or five concerts while we were there.

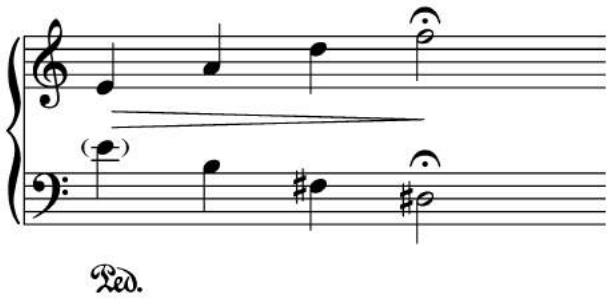
Joshua: Many theorists have analyzed your pieces as built off of just a couple small pitch cells.[131] For instance, seven and thirteen turning into the perfect fifth with a tri-tone in *Black Angels*. Is that an active part of your process?

George: I suspect with myself…I think most composers will have kind of a repertory of harmonic sounds you visit over and over. Look, I'm talking Webern – could you imagine a Webern piece without these three notes? [playing piano]



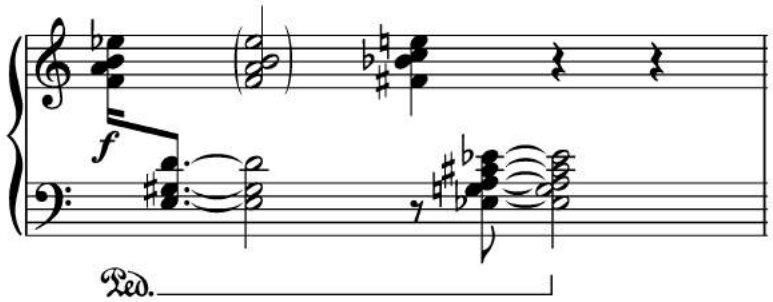
The whole of Webern is built around rows that extend the major/minor third. That's his whole life, you know.[132]

I go beyond that a little bit. I love certain things, some of them I've stolen from Bartók, who was a big influence when I was a younger student. I love symmetrical formations, like, say: [playing piano]



[131] For a few examples of these analyses, see Bass 1991, Bass 2005, and Johnston 2012.
[132] Crumb also briefly mentions it in his article "Music: Does it Have a Future?" (*The Kenyon Review,* Volume 2, No. 3, 1980): "An interesting practice in music since the atonal period of the Viennese composers has been the widespread use of a few tiny pitch cells. One such cell, which pervades the music of Anton Webern and Bartók, is the combined major-minor third: C-E-E-flat […]"

All fourths except on the outside of minor third, but moving from the center. I do it over and over. I love clashes of whole tone that even I don't think Debussy ever used. Mine are ones that sound simultaneously with the other set. [playing piano]



That's just one of the sounds that's in my music.

There will be melodic things I use over and over, probably people get tired of them, you know. They crop up in different pieces. But I think all composers are that way. They have little preferences that become their style. Creates their style. Even Mozart had his.

Joshua: Does that have any relation to the natural acoustic? From growing up in West Virginia?

George: Partly…partly.

I wrote once – I don't know where it was published – that the river valley where I grew up was an echoing acoustic.[133] Say it's a summer night, you hear sounds of

[133] Crumb is referring to Crumb 1980.

dogs barking or children playing on the other side of the river. The hills projected those sounds. And my music tends to have that echoing acoustic.

I've written very few movements for piano that are *secco* like Stravinsky. You know, without the pedal. My pedal would sometimes be clamped down. Maybe a Debussy influence, you know? Debussy gets pretty close to that in some of his pieces. You just have this web of sound that comes through the damper pedal. And I know that he probably wasn't familiar with the sostenuto pedal, but there're places in his music that are just crying for the sostenuto pedal.

Just in general, I think my music never loses touch with natural sound. I think that's the Debussy influence; I think that's the Bartók influence. Remember those movements in the late quartets? Where he goes into kind of a world music. Messiaen does that, too, reproduces sounds that are blending with nature or quasi-wind sounds, even. The sound of surf – I love that instrument called the surf drum, you know, and I've used it in a couple of the *American Songbooks*. Those were all sounds of nature.

Birds! Crows…especially crows. I love them. In my new piano work, *Metamorphoses*, kind of a latter-day *Pictures at an Exhibition*, and I'm using Van Gogh's *Crows Over the Wheat Field*. The pianist has to make crow sounds at a few points in that movement. That's why I have all of these art books down here. [laughs] The crow sound or the turtledove I've used in a couple of pieces. On the flute you can do an amazing turtledove. You can't tell it from the turtledove. The real one.

So those things. Mahler brings a lot of those things, good heavens. You know, sometimes his symphonies are loaded with birds at the top, you know. Or Alpine Bells, you know. He loved that sound. He loved sleigh bells, of course that's not animal but... [laughs] Could be I guess if the horse is pulling your sleigh! It could be that an animal is involved there. But, like Stravinsky said, you know, the composers that he likes don't borrow, they steal. So why shouldn't you steal from nature... [laughs]

Joshua: How does something like birdsong make its way into your process?

George: If you're setting a poem, the poem itself might call for a gesture like that, you know.

Of course, you know the story of, what's the big piece of Messiaen's, the whole bird sound. Was a whole string orchestra.[134] And he heard it and he said, "My God, it doesn't work does it?" You know, you can't hear anything. It's just a big mishmash. But in other places he did the birds beautifully, if they're more delicate.

Joshua: Right, if they're an effect more so than the entire piece.

George: There's a little, incidentally, a little Messiaen influence in God-music.

Joshua: From the *Quartet for the End of Time*.

George: But Messiaen came a long ways from those pathetic birds in Beethoven's *Pastoral Symphony*. I mean, they're nice in their own way, but it's very limited birds! [laughs]

[134] It appears Crumb is referencing either Messiaen's *Reveil des oiseaux* (solo piano with orchestra) or *Oiseaux exotiques* (solo piano, winds, and percussion). It is possible he is referencing the solo piano work *Catalogue d'oiseaux*.

You know a lot of the baroque composers use it. Remember, *The Hen* wasn't it? *The Hen*…was that Rameau? I think Rameau did some birds.[135] Sounds of nature have always kind of been one influence in music.

Joshua: In *Black Angels*, do you think nature comes through?

George: Maybe in that work maybe only the insect music…though there are some dense sounds that could be the voice of nature. There are a lot of glissandos in nature, you know. Some bird sounds are glissandos. Sometimes there are dogs make kind of a glissando. [laughs] Yeah. Those are all materials for composers to use.

Joshua: How do you go about developing those (or other) ideas?

George: Well, the music is developed a lot around a pure sound. Possibilities like the pedal tones, which are not exactly plentiful in most music. [laughs]

Techniques for viola, or something. You know, I experimented a little on the viola. I don't know…I think I came up with those, or the thimble on the strings. There were no models for some of those things. Maybe I invented the thimble on the strings, I don't know.

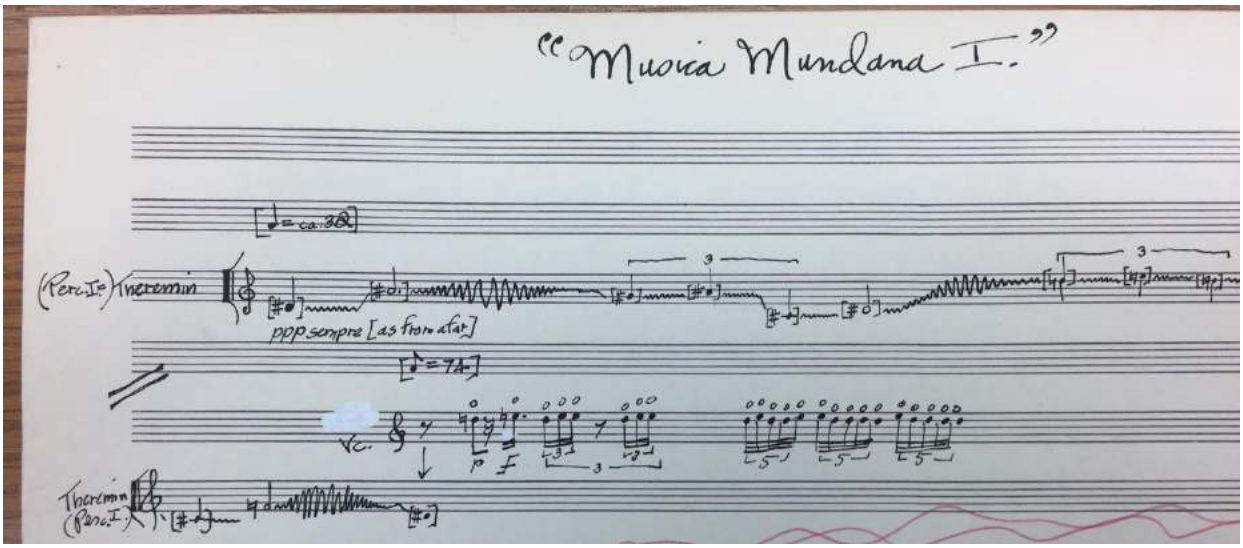
But Bartók was well on the way to reinventing stringed instruments in the later quartets. The glissando never had such importance in any earlier music. You know? There was that, you know, glissando with harmonics in the Bartók and something else. It is such an expressive device. An overpowering device.

[135] Here, Crumb is referencing *La Poule* (*The Hen*) from *Nouvelles Suites de Pièces de Clavecin.* I want to thank Nathan Martin for his help in identifying Crumb's reference.

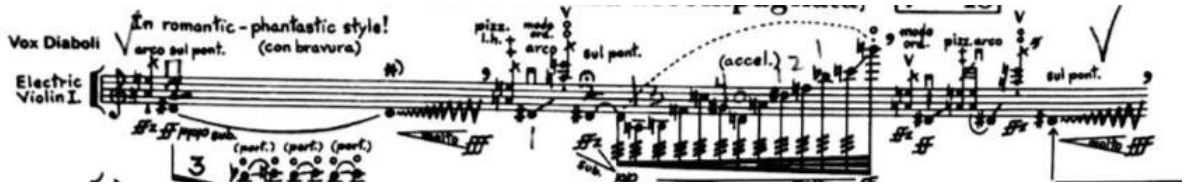
Joshua: You see that as early as the fourth quartet in experimentation with the entire muted movement and the entire pizzicato movement.

George: Yeah, that stuff. And I borrowed his, composers call it the Bartók pizzicato. The snap pizzicato. Which on a contrabass is *powerful!* Like a percussion section. You know, it's wonderful. But on the violin, even a high one, it's a special sound. That's a big part of my music. I'm not directly influenced by electronic music, but by parallel development for instruments, I think.

Joshua: Speaking of electronic music, I was interested in an early sketch of yours, actually, for theremin [see Ex. 5]. There's a notation in that piece, of a notehead followed by an expanding zigzag, that actually appears in *Black Angels* [see Fig. A.6]. Did these new instruments and electronic music affect you, your notation, or composition? Is there any influence or interest there?



Appendix Figure A.5 Sketch for "Musica Mundana I" from Night of the Four Moons, final movement[136]



Appendix Figure A.6 Movement 4, "Devil-music [Solo: cadenza accompagnata]" from Black Angels

George: Well, not directly. Although, all those sounds of course…our era changed right from the moment of the first recording. A lot of music today shows that. The Edison, old recordings…we're hearing a little different already.

And, you know, instruments have been pushed out further and further. Partly by recorded sound which does change the instruments in strange ways and enlarges them to the ear. It's incredible, the kind of connection there. Early examples I mentioned Bartók, but John Cage, like his use of the water gong, for example. You know, I stole

[136] ML31.C87, Box 7, Folder 5, George Crumb Papers, Library of Congress, Washington, D.C.

that from him because it's just a beautiful sound. I used it several times, in at least a dozen pieces.

Joshua: But you don't have any works that include electronics or prerecorded sounds.

George: No, only simple amplification. Although, a lot of the early performances of *Black Angels* used a high degree of reverberation, which intensified the sound of *Black Angels* quite a bit.

That's about the closest I came to any electronic music, because I think the natural instruments are…the one thing I've always missed in purely electronic music is the bravura. Performer's way of projecting a certain excitement by their total command of the technical aspects or musical aspects. A machine can't provide bravura, there's no way! I mean it's like a more mechanical instrument, like the organ, you know? It's so much space between the, touching the key and all these enormous pipes. But bravura…I love that aspect in music.

Honestly I've never felt the need for electronics because instruments can be expanded in a multitude of ways, you know. Which is happening all over, not, not just my music. Singing and playing that, I think it was a jazz idea before I even introduced it. There was some jazz flautist that used to do that. [laughs]

Joshua: Since we're talking about technology - Norman Fischer, cellist in the Concord Quartet, described a conversation he had with you in the early '70s where they were talking about how loud should the piece be. He said you described it as the "threshold

of pain." Do you think the amplification, nowadays, should still be that much or that's just what was necessary at the time?

George: No, I think it can be…part of it can be quite forceful. You know? I think that's built into the music. But, the quality once you know, you amp it up and so forth, it's so different now then it was then. It's done different ways now. Sometimes it's done just with air microphones. You know, that are pretty close to the player.

Joshua: Do you have a preference?

George: I've heard it good both ways. Although I'm guessing a little bit. I don't have a precise memory. I just know electronic equipment, generally, was breaking down all over the place in those days. A concert might last several hours because the equipment was falling apart, you know. I mean, so it's hard to compare. Not about *Black Angels*, just in general, just purely electronic pieces, you know? The music just suddenly stopped.

Joshua: The people in Concord Quartet said that they used to travel with two sets of contact mics, because odds are at least one set would be broken down at any time.

George: [laughs] Yeah, I know that's right!

Joshua: So, is the amplification just a means to get some of the effects heard?

George: Yeah, well…in some cases, some of the very delicate sounds it brings it out a little more, you know. The pianos, say, it clarifies those, but also there's something it adds to the sound or at least to the excitement of the fortes. You're just hearing the music, you know? It's higher than the expected level dynamically. That is part of it.

You know, really I think it works better now if there are just microphones that are positioned close to the performers. It eliminates a lot of undesirable sounds that kind of got into the speaker, you know, that wasn't intended. Some kind of sounds that didn't enter the piece at all.

Joshua: So, in a perfect world, you would like to have the pure instrument tone but louder.

George: Oh yeah. Yeah. I think I wrote some crazy notes in the scores that, one day, maybe we'll have perfect electrical instruments. We still don't have them, and I wouldn't want those now. They did that once...I heard one performance some place, forget where it was, they were these flat string instruments. They had no sound chamber. The color of was just like playing on pieces of wood, you know? They had no resonance. No real resonance.[137] So I would prefer, forget the contact mics. Nowadays, you know, they have super microphones that can catch everything.

Joshua: Would the stage setup could stay the same in that situation, where you just have the one microphone?

George: I think it's been done with separate mics for each instrument. That's what I was thinking of as more the usual thing. So they get a better balance between all the instruments, perhaps.

Joshua: I noticed on the Stanley Quartet recording you hear them putting the instruments down and picking them back up that through the contact mics.

[137] Although it is unclear whether Crumb is specifically referring to them, the Bowling Green String Quartet performed *Black Angels* with early electronic instruments in 1971, including the New York premiere.

George: You have to be careful. I have to be very careful with the same thing.

Joshua: It seems modern microphones would alleviate some of that.

George: I don't know how they handled the problem, if they were able to turn it off discretely at certain moments. I don't know how that works.

I didn't really even think about that very much, or at all, probably. I didn't have any earlier experience with…well, I did. I wrote a work called, *Songs, Drones, and Refrains of Death*, where the instruments are all electric. So I was already in that area a little bit. That was my first venture. Like, a harpsichord, and an amplified piano, and electric guitar. Electric contrabass…yeah, I love those sounds.

Joshua: And then you continued on with *Ancient Voices of Children* afterwards.

George: And other works. Very frequently, I use the amplified piano.

Joshua: It's kind of strange, because we have all these recordings from the '70s and '80s which really pump up the amplification.[138] And then we have these contemporary recordings which sound more like a normal string quartet with percussion instruments.[139]

George: Yeah. It gets terribly distorted, it's really warped, you know? I think that's expressed in the music. It doesn't need to be fortified by raucous sound, or something, you

[138] See, for instance, recordings by the New York String Quartet, Concord Quartet, and the famous Kronos Quartet recording.
[139] See, for instance, recent recordings by the Miró Quartet and Gaudeamus Quartet.

know? I mean, there should be powerful sound but it shouldn't be so distorted, it shouldn’t sound like sirens or something. [laughs]

Joshua: Do you have any thoughts on other performance aspects of the piece? I mean, such as lighting or, Kronos Quartet kind of has a thing where they hang their instruments.

George: I've seen a couple of their performances. It's very strange but in a crazy way, it kinda works. It's different, certainly! Symbolic. They're hanging cellos and violins and so forth, you know? And they backlight it, I think, all the stuff with the glasses. It's kinda nice, but actually, in terms of the projection of the music as I mentioned, I think the Miró Quartet is my favorite. Nicest humans, too. I have a special admiration for what they do with that skill.

Joshua: Did you work with them at all?

George: I was in on a recording session. They were very good. You know, just like any recording session, if something is not quite like you want it, you have a chance to do it over and over.

Joshua: Do you have any thoughts on the different lighting configurations used in performances?

George: I quite like the idea but, you know, I'm kind of open to also acoustical things. And I love the darkness. It's the darkness, the relative darkness in the hall. Ideally, music should be played in actual dark. Because it intensifies the hearing and anything. The eyes really subtracts away from the music, in a crazy way. As a kid, I used to love to

hear some of my father's recordings in a dark room. In a pitch-black room. The music was ultra-powerful when that happened. All focused on one sense, zoned in on the thing, you know?

Joshua: In a perfect world, your music would mostly be performed from memory, in darkness?

George: Yeah, yeah. Or different lighting effects if the piece calls for it. I can understand that. There's a light world in opera, you know, what they do in opera. Like in the *Vox Balaenae*, I like blue lighting, but I have to consider the practicalities sometimes! [laughs] The performers can't see their music! You know, it's a little unconventional. Players, sometimes, are not interested in doing that sort of thing.

Joshua: So, when we found the tape of the premiere, we also found a second tape of a recording session with the Stanley Quartet. It says that it was done earlier that morning of the premiere, around 10:00 A.M. Do you have any memories of recording with them?

George: Was it start and stop and there was discussion and so forth about different things?

Joshua: I think so; we only have the actual takes, unfortunately. Everything else has been edited out.

George: So you don’t have the discussion and all that?

Joshua: No, I wish we did! It was two full runs, one attempted full run but there's a note that says the viola battery died, which I assume is the contact mic. And then a couple different takes of the last seven notes.

George: It slipped my memory, you know? That would have been in 1970 or '71, I think is when the actual performance was. The piece dates from '70, it could've been the following spring or something. It probably was that same year. I can't remember anything at all about the rehearsal, and not about performance. In fact, I was really scared to death because the idea of conducting a string quartet seemed so monstrous! [laughs] You're exposed there, you know. Lose the orchestra, you know? Just four people there.

Joshua: What were your surroundings like in ‘69 and ‘70? You were teaching at Pennsylvania and you were living here?

George: Yeah, in this house, actually! Ever since we moved here from Boulder, Colorado, we lived in this same house.

Joshua: Were there events on the UPenn campus, or did you have students who were getting involved?

George: Yeah, there was some of that. As there was everywhere, you know. And yeah, it was just all over the country. The country was kind of, you know, infected by this strange sense of something going out of control! I guess my antenna [sic] were out, and any creative thing you do pulls in inspiration from outside! Music can do that readily. And literature, too of course.

Joshua: Were you trying to connect it to the Vietnam War? Or write an anti-war piece?

George: I wasn't…I started off just fulfilling a commission from the Quartet in Ann Arbor, you know, the Stanley Quartet. I got the idea of the three big divisions from Beethoven's Sonata.[140] Departure, Absence, and Return, and it's amazing. Probably fits with a lot of scenarios, you know. Or maybe there's another one, you go and see the horrible things that happen and get away from it. Or don't, or you stay, underground or something! But no. I didn't, I didn't…it was such a bad time. 1970, of course was the date of this piece, but all through especially the late 60s our country was in such a…kind of a terrible state of thinking about the war, you know? And the casualties were climbing so high, you know. For like a police action, it was incredible. So this feeling was all over the country and eventually it found its way into the piece. But I started not thinking about the Vietnam War at all. I kind of got drawn into it. I think I said some place once, in an interview, that composers, like everybody else, they're influenced by their surroundings, you know. Or events, like the Schoenberg Warsaw piece. And then Eroica Symphony is obviously reflective of all that French Revolution and everything that was changing, you know. So that's the way. With me it just happened. I found that the images I had in my mind about the music, the themes, the thematic side, was going more and more towards the Vietnam. So eventually, it did become in time of war.

Joshua: You've made comments in the past about how *Black Angels* might have something to say about the modern world, that it continues to be played because the things it

[140] The titles of the three sections of *Black Angels* – Departure, Absence, and Return – are the titles of the movements of Beethoven's Piano Sonata No. 26, Op. 81a, known as *Les Adieux*. The three movements of the sonata are titled "Lebewohl," "Abwesenheit," and "Weidersehen."

discusses are relevant.[141] Do you think that Black Angels will always have a place because of human nature? Or do you think it will always just be connected with Vietnam?

George: Well in a way you'd like to think so, but it seems invariable; I guess that wars will always reoccur again and again, you know. That's probably true. A lot of this piece survives and will become symbolically an anti-war piece. And when we write the piece, we don't know what its future will be. Maybe it won't have a future.

Joshua: Did you write it as an anti-war piece?

George: No, it kind of became that. I wrote it just as a form of self-expression during a really dark time. Even though I included "in time of war," you know, so people who tend to look at the score would know what the thinking was behind it.

There were, as I say, kinds of religious symbolism too. I think of the devil and the angel. The Devil- and the God-music, you know. Those things were there. Usually things get identity because of, maybe their setting of poetry or something, so it's impossible to avoid the sense of it, you know? The Ninth Symphony, you know, something like that.

But I think the idea's gotten around that *Black Angels* is a protest piece, but I wasn't, I didn't feel like I was protesting. I just thought it was a horrible situation...I guess it was a protest. Artistically, it was a protest. Though I never emphasized the resentment

[141] From David Weininger, "In Crumb's 'Angels,' fresh relevance" (Boston Globe, January 5, 2007): "Crumb says he understands why today's audiences might find "Black Angels" a moving commentary on what he terms 'this Iraq business.'"

it exaggerated, you know. I was well into the composition before I realized what it was potentially about. It was bad, going worse all the time.

Joshua: And even after you finished the piece, actually right after you sent it off to the Stanley Quartet, the shooting at Kent State, the Hard Hat Riot, and the big protest in D.C.

George: The US invaded Cambodia at that time, so it really wasn't going to get better. I think the piece was played at Kent State once. I was there, I seem to remember seeing that. I forget the quartet that played it, but it was a revisit of the whole idea, you know, that scene at Kent State with the students being shot and so forth. And it was done there. I don't recall who played it on that occasion.

Joshua: But, when you hear *Black Angels*, or when you think about it, what does it mean to you?

George: When I hear it, what I'm amazed by is kind of the dark imagery in the piece. I've never written a piece quite like that. I doubt if I ever will again, just like that.

But the piece almost scares me at times. My wife, Elizabeth, that's one of my pieces I think that scares her a little. She's not sure she likes the piece. And I say, "Well, Liz, this is probably my most played piece." [laughs] She can't quite accept that.

You know, it's so strange, but I've always been a little dubious about protest in general, political music that advances some politics. Because music speaks in more general terms. Normally, unless it's an opera or something. I have that feeling sometimes about *A Survivor from Warsaw*. I can understand why Schoenberg, my

God, that's his form of protest and so forth. But it verges on…music is better than the idea of being a protest piece somehow. I don't think of Beethoven's *Eroica* being a real protest piece, though I guess it implies that. But it can be heard on so many different levels. That they're funerals; they're not related to war.

Have you ever read about that strange time, in early 1800s in Vienna? There was almost a police state. Actually in several periods in Viennese history there was so much surveillance of poetry or stage works and so forth. And music was a little harder to get at, but you know, even there I guess they could find it if they were looking for it. If something disagreed with them. And I think Beethoven felt that. Didn't like it.

Take *Black Angels*. Because, once I realized the type of piece I was writing…it's centered, you know, and it's become known as the Vietnam quartet. It's like, what really was the meaning of the *Eroica* symphony? Because it's a symphony of protest of some kind, you know? And I think it is signifying the break from the old, you know, pre-French revolution, period to something more advanced. In that case. There are other pieces that I think I don't see the connection. Like Penderecki, the Hiroshima piece. I don't feel that the music…it's like he applied that title afterwards.

Joshua: I think he did, right? Wasn't it premiered just as *8'37"*?

George: That's right, I remember that now with, it was added afterwards, yeah. Well, how about the evolution of Shostakovich symphonies that came right out of the Second

World War? Even the Fifth is loaded with…I think it was written before the actual war, the Fifth. Oh, it's a wonderful piece. I love that piece.

But you know, there's another thing about music. Do you know of a piece by Bartók called Suite, Opus 14? For solo piano. The last movement of that, to my ear, is predicting World War I. It's like music can do that, you know? It can lay out what's going to happen. And I've always felt that way about that. The final movement…it's slow, very economical, not too long, but it is so desolate.

Joshua: Music can reflect or be prophetic, in a way?

George: Yeah. I think so. And it's tied into later, after the composer is long dead. I remember during the battle of Stalingrad, Hitler pulled out the funeral march from the *Eroica* and it was played over German radio, supposedly. Beethoven would have been enraged if his music was linked up with anything Hitler was concerned with. Because there was a quasi-Nazi government in Austria at that time. They were clamping down. That's why he wrote so many string quartets. He stayed away from symphonies for a while. More kind of private, personal music to escape the sensory, you know. Music that would have been played not so much in public as in private.

It's always a question. I'm thinking of Mahler, the third symphony. Originally all those seven movements had specific titles. Which he decided not to include, you know? He wanted the music to just represent itself, as pure music. It was like "what the rocks tell me," something about the animals…I don't know all those separate titles.

It's an eternal question about music. When Disney did *Fantasia*, you know, it became very literal. His treatment of Stravinsky and so forth. In a way, it's hard to hear that piece anymore. I still think of hippopotami with tutus! [laughs] There are a lot of those pieces, not by Stravinsky, one of the other pieces. I hear those hippopotami running around. *Fantasia*, all that stuff. Oh, that's funny.

Beethoven was worried about that even back then, he was worried about his titles in The *Pastoral* Symphony. "Singing by the Brook," and all the others. What was the last one called? "After the Storm." You know, the farmers were happy again. And the storm thing, of course, it sounded like a storm, it works on that level. That piece in a crazy way kind of works on that level. All the things really add up. It makes sense. Even those bird songs! Some of the themes are just beautiful, with symbolism or not. They're just great things. It's Beethoven!

I sometimes wonder about some Chopin. His octaves are so beautiful and expressive, did he have pictures in his mind for some of those? Some of those things…in some of them, time is really suspended. I used to use those as models for students, for exercises in writing, how to write for the piano for one thing, for all my composition students. We did a whole semester of imitation, Chopin Mazurkas and Nocturnes. Came up with some pretty good pieces sometimes. They get the feel of what it is to write, to have that basic thing.

Joshua: Looking at *Black Angels*, it obviously has a very particular and complex formal plan. How do you view the relationship between all of the movements?

George: I don't know how to answer that quite. There should be certain separations between movements. There are principle movements, and there's some theology involved with God Music and Devil Music. The three threnody type movements. There are other quotations, *Dies Irae*, *Death and the Maiden*. I don't think logically about how everything is interrelated. It's partly how it supports the big arch of the piece.

Joshua: Was that symmetry mainly from the instrumentation and the numerology? Or were there other aspects of the music that you were trying to line up?

George: I think that was important, since I go from full quartet down to solo. I was thinking about that as kind of a basic, logical sequence. Both the growing or reducing from 4 to 1. Accompanied one! You know, sometimes it's hard to pin these things down. As well it's been almost 50 years, and I can't bring it all back, you know. But my music, since those works, has always shown some of the same qualities. I believe one can quote from almost any period, just like you can borrow instruments or kinds of music from cultures other than Western, you know. The world's opened up that way. Now if it's a vocal work like *Ancient Voices of Children*, of course the logic of the poems themselves shaped the form, you know, helps to shape the piece. *Black Angels*, that's like a super laid-on-top of my ideas which I tried to make an instrumental piece out of that. I don't think there's any quartet quite like *Black Angels*, in the pictorial since. Combining medieval elements or ancient numerical things. Maybe there is, I don't know such a piece, but it's kind of in a vein! Crazy piece, let's face it. I think it's

probably my most played piece, actually. It turns up everywhere, in Asia, it's being played by so many quartets. Young quartets, usually.

Well you've probably heard the stories, but I conducted the premiere! I was asked to conduct because, they were wonderful musicians the Stanley players, but they opened the score and couldn't believe what they were seeing. They had no sense of how to keep it together. They asked me to conduct! I felt so silly, up there conducting a string quartet. I'm not a conductor, anyway. But it helped, they thought, to give them the basic tempos and to keep them together. With all those glissandos it's easy to lose your sense of where the beat is!

Joshua: And since it's unison all the time, you really have to be together.

George: You know I never was in on the Kronos recording? They recorded that and had no input from me. Except the score! Ah, I guess they wanted to find their own way into the piece.

Joshua: They have a more theatrical performance of it, right?

George: Yeah. I saw a live performance, and it was kind of compelling because it was so unconventional. And the tray, you know, violins hanging on ropes and that sort of thing. They would pick up one when they play that again, you know. That sort of thing. And it's a much freer performance. I like what they did theatrically and so forth. There was a certain freedom in it, elan.

I think probably the best, my favorite of all the recordings is the Miró quartet. It's just superb. I mean, in terms of fidelity to everything I had in the score they performed more faithfully than any quartet I've heard.

It's my favorite. You know, although, several other quartets put their own energy into it, you know. But this was just so great! The Miró, because everything they heard, some of those, particular ways of producing sound, like the thimbles of the end. Some quartets it just doesn't work! You wonder what they're doing up there and all you're getting is a bunch of clicks. But the Miró you hear the harmony of the earlier section coming out. You hear two events. You hear the little glissando over the top of the string, and then you hear the harmonies come out. They did that better than anybody.

Joshua: I've noticed that in recordings that's been a section with a lot of…different interpretations.

George: [laughs] In most it doesn't project, But they did it, they did it! I had worked that out myself. I'm the lousiest viola player in the whole world, you know. Piano's my instrument. But when I was about 20 years old I said, "Well, a lot of composers played viola, too." I don't know how well they play, of course Mozart played everything brilliantly. But his father said, "You know, Wolfgang you want to practice a little more, you could be the first violinist in Europe." He was already the first pianist! The first composer, you know. [laughs] That's so funny.

Joshua: Do you remember any other stories about particular performances?

George: Well, a lot of the earlier performances people were blown out of the halls because, you know, the amplification of the sound, they were blowing it up, you know? Where it almost went beyond…their ears hurt, you know? That shouldn't hurt their ears. It was too much for them.

Of course a lot of things then, in other areas too, you know amplify the piano or to use extended devices, extended techniques and piano writing, upset a lot of people who owned very expensive pianos and it offended piano tuners. And if you called on piano tuners, they came and checked the middle pedal, which I use a lot. Sometimes it doesn't function because they never get around to checking to see if it works. And I write it in the score, it's impossible to play certain pieces throughout the middle pedal.

Joshua: I mean, you would expect all three pedals on a piano to be functioning.

George: All three pedals, yeah. I use the *una chorda* less than Beethoven did but the other two pedals I use supremely, you know.

Joshua: How often to you do you have to get your piano tuned?

George: Well, sometimes I let it go long before it usually needs tuning, you know. David Burge once played something on my piano. Here, he's showing me something or another and he wrote later. He said, "He has the worst out of tune piano I've ever heard".

Yeah, of course, sometimes as a composer, too, you correct it even though you don't care whether it's a half-tone lower or something lower. You keep correcting it but you're too lazy to get it fixed, you know.

But boy, there used to be a lot of uproar about doing anything with any instrument. It's not new. When people first used to ask to tap the bow on the strings, most fiddle

players would bring an old torn up bow and substitute that bow when they had to play such a passage.

Joshua: People use carbon fiber bows for that now, typically.

George: The piano world was funny. Once, there was a big article in the Steinway Magazine, how this music is destroying out instruments. And then, later, they featured my picture on the front page, saying, “We provide good instruments for the most modern music, too!” [laughs] But to have the experience as a composer, you go to visit a college, they pull out their worst piano. Because it involves, you know, those sorts of things. It's many cases of that.

Joshua: At least in the quartet, there's not anything too violent. The pedal tones are hard to produce but don’t hurt the instrument.

George: The pedal tones sound like it's tearing the instrument apart, but it really isn't. But when those things come up, I experiment it myself. I'm not a real string player. I play a little viola. I like to try out certain things. Thimbles on the strings at the end-which is a piano technique, really. String players have a little trouble in articulating that. They won't do that. You know a trill is a one finger thing on a string instrument. One tone is pinched down. So that’s sometimes misfired. The way it really should sound, it's clear as a bell and I really hear that that way. The best way they can do it is just very rapid with one finger. If they try to do with two fingers, one finger kills the sound. One or other of the fingers kills the sound. It has to ring through, you know, like a piano trill.

Joshua: What advice do you have for quartets looking to learn the piece?

George: Specifically, it's hard to think of…trying to run over the piece in my mind. I can't think of anything special. That's just the one thing. The thimble technique. They also have to learn how to get the best sound out of the glasses they're playing the goblets. Takes a little practice, and it's better if they don't put too much water in the glass. If it's too full it kills the purity of the sound. That's another thing, to have perfectly tuned glasses, they have no water.

But you know the funniest thing about this, is that writing this piece was a little destructive. I had been asked several times to write a second string quartet. Actually, this is my second string quartet. I had a student work that was completely finished. Full length. A string quartet, which sounds more like Bartók than I would ever want to know. But you know the story about Ligeti? They pulled out an early quartet of his which they called Bartók No.7.

Joshua: So you were Bartók No.8?

George: No.8, yeah! [laughs] That's right. But I just, I wouldn't know where to start with a string quartet. Well, there'd been a lot of composers, Debussy and Ravel, only wrote one quartet each that, maybe, killed any more quartets. And when I went through the Beethoven quartets, my God! What an estate. Lifetime effort, you know? What a library he created, just in that one genre. Just incredible. Incredible. It was way beyond Haydn and Mozart, the different things he gets out of quartet.

Joshua: So what happened to that first string quartet?

George: Yeah! Steve [Bruns] was trying to track it down, because I lost the score myself. He was trying to recover it from parts that somebody had. It was played in the Midwest some place.

I only heard it probably only two or three times. And probably two of those performances were student performances. You know, young players in Ann Arbor. I guess I've been scared off every other time... I've been asked by Kronos and other groups, "Can't you write another quartet?" After *Black Angels* I wouldn't know what to do. I really wouldn't know what to do. You have to be the complete opposite. Well what's the opposite of *Black Angels*? I don't know.

Joshua: Mozart?

George: [laughs] Re-write Mozart? I guess! It still puzzles me, you know. I've toyed with the idea of doing it and never got beyond a thought, you know, just a thought there at all.

Joshua: Can you speak a little to what working back with the Stanley Quartet was like?

George: It was so long ago. It's not really a cop out. It really is long ago.

Joshua: Oh, yeah. It was almost 50 years.

George: So, I mean, we're talking about half a century, almost. What impressed me was, as old as they were, they hadn't played much of the “new” music at all, even at that time, you see? It was more traditional modern music they played. They played it very well, but they were not above trying something. They jumped in with it, you know? I think they thought it was something that might explode. Maybe not be successful [laughs]

because the way it was written, but they were gonna give it a try anyway. I admired them for that. They played Ross Lee Finney's pieces and other American composers but nothing that I remember much since, well, the '60s and '70s, when the music started getting much different.

Joshua: But they were willing to try new things?

George: Oh yeah! Sure were. But they wanted me to conduct and rehearse with them so I could tell them more exactly what I had in mind for certain things. They had to do all the speaking. These weren't conventional things. Quartet members just weren't expected to do them, you know. So they had…they were a little sweaty for one moment in the piece. I just threw that in for fun, you know? [laughs]

Joshua: All the different languages?

George: Yeah. Well, yeah. I wanted to give it kind of a, uh, kind of a sense of world kind of music so I used different languages. One time, it was played in the South of France and when it came to that place where they're shouting the German numerals, "*Eins! Zwei! Drei!"* the hall interrupted in a huge booing sound. It was a hangover from the Second World War, I guess. But they just hated to hear that. It's the way Schoenberg uses it in the *Survivor from Warsaw*, you know. He burst into the German, counting. And they didn't like that at all. I was there and I hid myself! [laughs] They're funny, the little quirks in that piece.

Joshua: Had you been thinking about writing a quartet for a while when the Stanley Quartet commissioned you?

George: Not that one. It just suddenly happened. I accepted the commission maybe because it was Ann Arbor and I had connections with the school but I hadn't…I don't remember having had the idea earlier on.

Joshua: It wasn't too long that you really worked on the piece after that, though. It was only a couple of months.

George: I'm a very slow composer and I wrote that plus *Ancient Voices of Children* in the same year. Which is, for me, a miraculous production. I'm the slowest of all composers.

Joshua: Do you typically work every day when you're working on something?

George: Most every day, yeah. Most every day.[142] Sometimes you skip. Something comes up and you're away from writing for a few days. But now, my next project has to do a second volume of that series, *Metamorphoses*. I have it mapped out here. The pictures are already chosen.

I have a lot of sketch books. I use those, or I have just music paper underneath. Sometimes I just work on single sheets, you know? But I do a lot of sketching. You've seen some of them, in the Library of Congress. Beethoven had many more pages. Like we mentioned, his early sketches are very primitive. It's like once he had those he worked to open his mind. I have a feeling that a lot of his composition was contrived from improvisation. He said that once. No, there's a story I remember.

[142] "Sketchbook A" in the George Crumb Papers at the Library of Congress (ML31.C87, Box 9, George Crumb Papers, Library of Congress, Washington, D.C.) includes a lengthy work schedule from 1969 and 1970. Crumb typically composed for several hours in the morning and early afternoon almost every day, only taking days off when he was out of town.

What's the big headliner sonata, you know? What's the name of it? You know, goes by the…*Appassionata*!

And he had written everything except for the last movement. He was to have a student with him, one of the students was supposed to come to his house. He said, "I can't see you today, I've just had an idea for the finale and I've gotta work it out. So I'll see you in a couple days". You know? He was gonna work it out in improvisation.

Joshua: Do you find that you work more in your head or at the piano?

George: Both, both, I think. I had to get a small grand piano and I have a swivel chair so I can go between the piano and the desk. Sometimes improvisation is a source of ideas, you know? You're also allowed to steal a little, but you know, you don't want to steal everything. It's strange. You know my son's a composer, David Crumb. He teaches at the University of Oregon, and I always joke with him about it. I would say, "Why would you want to become a composer? Don't complicate your life!" [laughs]

Liz: Our son was a cellist.

George: He went to school as a cellist, and then the head composition guy there at the time talked him over into going into composition, so David, after that, kind of neglected his cello. He teaches at the University of Oregon.

Joshua: Do you like your son's music?

George: Yeah. Thank God it's not like mine. It's his own way, you know. I think there's more Stravinsky in his music than there is in mine. Mine's more Bartók. His is a little bit more Stravinsky.

Joshua: Does he write out his own scores?

George: No. There ain't many people like me left that draw their own scores. All my students use computer notation, including my son [laughs]. But I still use the old methods.

Liz: [laughs] You're old fashioned George.

George: I guess, yeah.

Joshua: Can you talk a bit about your process of engraving or thoughts on notation?

George: I draw my own staves because I like different patterns on the page. My music requires different patterns. I do it by hand on one line at a time. I've always done my music this way. I don't like these computer notations. They all look the same to me. The only, and about the best I've seen in computer notation was a former student of mine. He rejected all those programs you buy. Did his own from scratch and based it on the most beautiful Leipzig Peters forms of the notes, from the 19th century. It looked glorious on the page, the way he does it. He had an incredible sense for space, you know. Which is a special gift. There's nothing mechanical about that at all.

For a half note in a 4/4 measure with two quarter notes, it's not exactly twice as long as those two quarters. It's not the same as two quarter notes. So there's some artistic work that comes in there.

Michigan was always a great school for this. The main thing I learned from Finney, believe it or not, was notation. If I did something he thought was wrong he would always say, "Your stems are running in the wrong direction." And I never thought about that as a kid, I just threw it on paper.

So since then I've learned to look very carefully at beautiful publications you know, where it's all right. He was very insistent on notation. But only those details that helped you get the ultimate clarity, the most you could get. So that if your score is set to Japan or someplace you can't be, you're confident that the score expresses everything they need to know.

Joshua: And the circular scores?

George: Oh, God. I almost broke my back with the Spiral Galaxy.[143] I think I wasted five days getting that to work. It's all done with my compass, you know. It sounds easy, but it's not to make all the things meet up where they should meet. When I finally got the pattern I could use, of course I had to adjust the notes so it would work out just right. That was the hardest to make. The straight circles with the compass are easy. Even recently, in some of the songbooks, there was some fancy notation too. So I haven't entirely given that up.

Joshua: Do you still use the large pieces of graph paper now?

George: No, I haven't used that since way back in the 70s or 60s.

[143] *Makrokosmos* Volume 1, XII. Spiral Galaxy [SYMBOL] (Aquarius) (1973)

Joshua: What do you use now to make sure everything's even?

George: I use a special paper, a coated paper. To me that's the greatest paper for working with pen. I love that paper. Some paper is too porous or something, and this has a nice coated quality. If you make a mistake you can even sometimes scratch it out with the pen. Because it has a coating it can take that. And if it goes beyond that, then you use a little white out.

But it takes time, you know, to make beautiful scores. I don't know why I spend the time. Beethoven was right, he said, "Life's too short to draw pretty pictures." You know, "To paint pretty notes." [laughs] Zu kurz um noten zu mahlen…I read it once in German.[144] I mean you don't get bored. You have to think that time doesn't exist anymore. You're like a medieval monk; you forget that the world exists.

Most composers would think that's monstrous. They say, "You spend half of your time ruling your own staves!" It's much easier on the computer, you know. It's faster on the computer. But it looks so uninteresting. I don't know if everybody sees it that way. It seems so impotent. Sometimes publications of Mozart include photographs of his manuscripts. What a pleasure that it, you know? But even engraved music doesn't look as soulless as computer music. Because engravers are different people, you know? They put their own personality in it, so it changes, you know?

[144] From Schindler 2014 (273): "He himself often joked about his almost illegible characters, and used to add, by way of excuse, 'Life is too short to paint letters or notes, and fairer notes would hardly rescue me from poverty' (punning upon the words *Noten* and *Nöthen*)."

Joshua: Has your notation changed much since you finished with Ross Lee Finney, or are there certain things you've realized after that that you wish you had known?

George: Well, some kinds of music I've written since that time probably require a little different notation. Experimenting with some different things. Like the visual, graphic scores that go a little beyond traditional. Bending the staves and so forth. I don't know how that came about but I just thought of it and figured out how to make it work. I made the curved staves with a compass. I used to have one that had an ink thing on the end. You could draw them pretty carefully and exactly. The hardest one, of course, to draw was the *Spiral Galaxy*. Because, you know, it's not just a perfect circle. It had to interlock and had to…I don't know how I ever drew that thing. [laughs].

Joshua: So you would never attempt to do anything like that again?

George: I mean, with a compass, can you imagine? Yeah. I mean that's just incredible. So it would probably be hard to do on a computer. I don't know. Maybe they could derive some system so that the computer could produce that. So that's my prized example. I should have given up right there and that's as good as it's gonna get. [laughs]

Joshua: It’s a pretty good place to peak!

George: Yeah, I know. I've seen that printed over and over again around. [laughs]

Joshua: Were you as strict on your students on notation as Finney was?

George: I always was, yeah. Anything I saw I would remark, if something seemed under notated. Or if there's ambivalence about the notation. It's always a question that you get, would you be satisfied if you weren't there to go through the score and see exactly what happens?

We had some fun in those classes. I used Mahler too, not as writing exercises but just analysis. He was always one of my favorite composers, I think I did about three or four of those over the years. All the symphonies and large vocal works.

Joshua: What did you find most important in your teaching? Were there certain things that Finney emphasized that you decided not to or vice versa? What was the information you really wanted to impart to younger composers?

George: Well in my case it was notation. And, I hate to confess it but, I even had my stems going in the wrong direction! In my earlier days. He pulled me out of that, right quickly, you know. He had an eye for what looked right on the page and got me thinking about notation as important as any other aspect in music. Because if you're sending a score to Japan and you can't be there, they're gonna have to derive everything about a piece from your notation. So it has to be precise. There's certain little things composers do. Like, to give every note an accidental. But that seems fussy to some people. But I've seen so many cases where it's paid off too. You read the accidental just immediately as part of the note anyway.

Joshua: What else did to try to impart to students?

George: Only encouraging the students to hear as much music as they can from all periods and all countries, and all over the world if they can. Because any of those might be influences, you know. I kind of retaught a lot of the things I got from Ross Lee Finney to my former students. I talked a lot about the notation. Although most of them were better than I was when I was young. [laughs]. Maybe they look at scores more, I don't know.

Joshua: I think most people probably would agree that you've upped the standard for notation, so it seems logical that you work with students on that.

George: Yeah. Well, I do all my own. This is all my own notation. First page of the new piece. It takes time, but I hate the computer notation because it all looks alike. Every composer looks the same.

Joshua: Are you working on more *American Songbooks*?

George: No, that series, there's seven of those things. I thought seven was enough of those. I hope to do two piano works on a large scale on the size of *Makrokosmos*, based on these paintings.

Two different ones. One's for Margaret Leng Tan. She plays around a lot and she actually did a DVD of both *Makrokosmos*.

The first book is done. Here's the *Black Prince* of Paul Klee. A little longer piece, slightly longer than say any of the *Makrokosmos* pieces. And here's *The Goldfish* of Paul Klee. Here's *Crows Over the Wheat Field*, that I mentioned to you. Here's the

crows part up here, the calling. She was out here in our front yard listening to our crows so she could get the right bird voice.

Here is The Fiddler. You know, it's actually the Fiddler on the Roof. That's a picture of that, and I say in a Jewish Russian folk style. I locked in the tuning of the violin with the sostenuto pedal, and otherwise it's played dry. So whenever it hits those pitches, or some harmonic fundamental, those notes come out so. I'll play just the first so you can hear that. Hope my sostenuto pedal works today. [laughs] Sometimes it doesn't, it gets stuck.

I'm going to put these keys down there. And it opens this way. Let's see if I can play just a little of it. So like that, and you can play it when it gets away from the actual tune. I play my own music, but I never practice it. Hear the sub-tones ringing? It's a little reminiscent of the Jewish movement in the Mussorgsky. [plays piano]

That's the idea there. For the last movement I decided, it's called the Blue Rider of Kandinsky. There was also an artistic group, a big group of painters called the Blue Riders.[145] It was known and influential in German speaking countries. I think Schoenberg was connected, he knew some of those people. He painted some.

So what I've done is asked the question, “I wonder if Kandinsky was thinking about the Earl King?” Or the writer's death—who eventually takes the child, you know—and I decided to base the musical piece on that. It starts this way. I should be

[145] Crumb is referring here to Der Blaue Reiter, the group of which Kandinsky was a founding member.

embarrassed to play this, I haven't practiced it. So this one opens it with these sounds. [plays piano]

If I can find the notes! Oops, lost it. And one more. And then it sets up a double five pattern there, let's see, I can't see very well. Something like this. And it goes through the whole piece like that. [plays piano]

Finally it ends with this huge movement here. Let's see if I can get a little of this. Let's see, it goes…let's see. Oh it's right here! It's on the keys this time! [plays piano]

I can't play it! Twelve-note chords! Ah! Then the pianist picks up a soft percussion stick, it plays on the strings below it. So these two things, you know, where they have to play, it's going to sound like all hell broke loose at that point. [laughs] I'm sorry I can't play this! I used to play it a little better. I played some of it for Margaret just to show her how it goes, but she comes here and plays each movement, works it out, plays it for me like it should be.

There's only one other thing, since you were asking about quotations. I won't play this, but I'll just show it to you. It's *The Persistence of Memory* by Salvadore Dali. And it's the Mozart clarinet concerto here, just the bare melody. And then it quotes the Beethoven, Ab Sonata, again, just a single line of the melody. And then finally the spirit of the tomb, the church tomb. I changed that to humming; she found that easier to do.

Joshua: Do you still play anything other than piano? You used to play the banjo, right?

George: No, I didn't ever play the banjo. I didn't really play the viola. I, of course, read that all the old composers played viola. Schubert did. Beethoven played a little fiddle. Mozart played great viola. Mozart played great. Anything he did was great!

That helped me, the little bit I learned about trying to play the viola. [laughs] I didn't start until I was about 19. That's much too late, you know. I studied for two or three years, and I didn't get far. My kids would laugh at me, because they played violin as a kid. And David played the cello. We try to do trios, you know, but they always would laugh at me.

Piano was my instrument. I wasn't a virtuoso, but I played all the Chopin etudes at one time or another, under tempo a little bit. But that's all right, you know? That's so important for a composer, to knowledge of an instrument.

George: Were there any other points that you wanted to talk about? Maybe we can go listen? Is the sound fairly good even though it's an old recording?

Joshua: It is. When they digitized it, they had no problems with it at all. So, yeah, let’s go listen.

George: We can go to another room.

[Listens to *Black Angels* premiere performance.]

George: [laughs] Certain things they did...Yeah, that was quite an experience!

Joshua: [laughs] Yeah, so they took, I mean, they handled things well.

George: Yeah, yeah, certain little passages came through! Normally, what you would expect to, you know, most of the spoken parts, some of that's really shouted, but didn't come out above, you know, a whisper! [laughs] That stuff, that dramatic part of it was not quite there, but that's something you don't have to do playing the C# minor quartet. You don't have to shout numbers! But they made a valiant effort, and, at the time, I thought "geez, this is pretty good."

But you know, it's sort of changed and more and more perfected over time. You know. Probably that, that happens with a lot of pieces. At first the question is, "How does it really go?" you know? Eventually they find ways of projecting those things.

String players, you know...some of those things, I would have thought that they would, uh, have early training in Bartók, you know. At times, he's extended written glissandos in his music. But anyway, it was fun to hear that brings back, good Lord, I can kinda remember the sort of general sense of it, and the giggling at first, you know, about certain things that were going on.

Joshua: Did that happen often in performances, that audiences were kind of thrown aback by it?

George: Oh, yeah, it did, yeah. And sometimes I remember where the amplifier just kinda exploded. I mean, the, it, the sound equipment exploded, you know, and [laughs] it was like the whole, the whole thing was blown up, you know, with TNT or something. It was like a big blast. Yeah. But when the first, mostly of course younger people, they weren't afraid to kinda do the things. It began to speak more on it's own.

George: But, I'm amazed that they did even this! But that's funny. I can't remember any of the time, rehearsal times we had and what we talked about or anything.

Joshua: Well, it's 50 years ago.

George: And I was getting it in my ear too, because hearing the final sound is different sometimes from what you hear internally. So I'm still getting used to the sounds and wondering if this was the worst piece ever, ever written, you know. [laughs] There's a lot as a composer...you hear the little things that don't reach their expressive point that you imagine. That they're just kinda hanging. You're like, you know, what? What's that doing here, you know?

But whether the Juilliard Quartet could make it sound any better than these guys, I, I don't know. [laughs] It's out of their league. Well, they played the Bartók! They played the hell out of the Bartók.

Joshua: They did. Yeah, and they did play the Carter quartets.

George: Yeah, yeah. Carter doesn't require anything beyond playing the string instruments He doesn't require vocal things. He doesn't require revolutionary ways of playing the stringed instruments. Pedal tones. It's, yeah, yeah, it's formidable, as a problem for, performances to project such a work.

But I'm happy when it works and the players really make it work, you know. Can have a kinda of a powerful statement, but it has to be so perfect in the performance. You couldn't expect that the first time with, you know, older players.

Joshua: Listening to this now, what's the effect of the piece? What does it project for you?

George: It's like projecting theater work, the theatrical aspect of the work, you know. Technically it has to...the intonation is wandering here a lot. It's wandering. The pitches that I wrote in some cases drift off. The actual pitches are important. You know. And, for example, all the glasses weren't tuned perfectly, you know? It was out of tune. [laughs] It's all those little points. The closest thing I can regard in olden times might be the Grosse Fuge, the Beethoven. Players didn't know what the hell was going on with the piece. They had no conception of it whatsoever. And I'm sure Beethoven really never heard it like a...well first of all, he didn't have any hearing anyway! [laughs] He couldn't know how they played it.

It should be a dramatic work. It should project terror, and hope, and all those basic emotions. There should be something very penetrating about each of the musical gestures. It has to do with tuning, you know, exact tuning. The unusual sounds have to be convincingly done, you know. The dynamics have to be followed. If it's screaming dynamics, you know, it has to come out.

This was kinda of, you know, kinda condensed to a smaller range. I want to say that's nothing against the players! It's dropped in their lap out of nowhere. But something, in all these years, has been a build up of a performance tradition. The best players, I have noticed, don't take it as a joke.

They think that there's expressive gestures in it they can perfect, you know. At least I hope there are! [laughs]. It's not an easy piece to make work. The dramatic sense has

to be very strong in the piece. The connection between all of the events...the timing has to be what the score says, you know?

But imagine - the performers of three last Bartók quartets had a lot of questions when they first played those pieces. How do they do these decrescendos, drifting off into nothing. How do we get the intensity, keep the intensity going, or the, whatever it is, the nobility of the phrase, or the whatever. Whatever the composer wants to express. And it's new with each generation.

Imagine the first person who had to do the Bartók pizzicato where you pull the string, and you let it bang against the fingerboard! [laughs] How about a drink? You're not driving, you can have one. Wet your whistle as we used to say.

Joshua: Oh, sure. That would be great.

George: Okay, well what do you like? We have plenty of white wine. We have vodka, which I prefer, and gin, which is for my wife. Well hi there, little doggy! That's Katie Dog. She's a beautiful little dog. They know you're a dog lover. You see, they're all coming up one at a time. [laughs] She's a beautiful dog.

Joshua: Do you guys have dogs since you guys got here?

George: Yeah, since we were married, Liz and I. The first dog was a little dachshund.

Appendix Figure A.7 Crumb in his studio with his son David and the family dachshund (1968).[146]

Joshua: So other than composing and spending time with the dogs, how do you usually fill your time nowadays?

George: Oh, I love to read. It's, you know, the sensibility…

Joshua: What have you been reading recently?

George: I go back and read my books over and over. So many things. The ancient Greek writings, you know, all the tragedies, and all that stuff. I like a lot of the 19th century works, but different countries, different things. And for easy reading, I love Sherlock

[146] ML31.C87, Box 29, George Crumb Papers, Library of Congress, Washington, D.C.)

Holmes and… Who's the British writer with the famous Belgium detective? Slips, the name.

Joshua: Do you listen to music very often?

George: Yes. Sometimes on our TV. Normally I don't pull out CD recordings, except to check over recording of my own to make sure that it sounds all right. But if I want to revisit anything, you know, *Fidelio*, or *Meistersinger*, whatever, you know, I tend to get the score and hear the sound in my head. Which we do as composers, normally. Becomes a little hard with some Schoenberg to do that, but tonal music, you know, you can hear it in your head. Do a marvelous performance in there!

It's like writing music too. You're kind of hearing it, it's not as vivid as to hear the actual thing, but it's still there.

Joshua: I'm assuming a lot of Beethoven and Chopin, from our discussion today!

George: [laughs] Oh yeah. I keep stacks of those books right down there on my side table. And in this room we just passed through. Like the Beethoven quartets. It's a big, fat volume, all of them.

Joshua: So I'm looking at publishing some of the conversations we've had.

George: Oh, I see. Okay.

Joshua: Before anything's published, I'll send you a copy so you can read through and approve it all.

George: Well, if I said any bad words, you can edit and slice things one way, you know?

Joshua: Absolutely. I'm thinking about calling it "Gin with George."

George: “Gin with George.” Shit, mine's vodka!

Appendix B: Interview with Henry Root

On April 8, 2019, I interviewed Henry Root, the creator of the "Crumb Boxes" used in the premiere of *Black Angels,* at his home in Ann Arbor, MI. Although Root left the University of Michigan a few years after the premiere, he remembered many specific details about the construction of the amplification equipment for, as well as the night of, the premiere concert in 1970.

Joshua: I've got some questions prepared, but if there are ever any stories or tangents that you would like to talk about, of course feel free to.

Henry: Well, a funny one, I think I did mention to you is being stopped by the police department the next morning. I was taking the stuff back into the school and, well, the speakers were just in the back of my car. Which could be seen openly. And this was like 9:30 in the morning!

Joshua: (laughs). All right. So just to start out with, could you tell me about your involvement in the premiere of Black Angels back in 1970?

Henry: Well, first I was the director of electronics and recording at the School of Music, which meant electronic music, video, recordings, the sound systems in the various classrooms. I don't know if we still have that or not.

Joshua: Yeah, we do!

Henry: So when George Wilson, whenever the Contemporary Directions Ensemble had anything to do, I was very involved in what they were doing. So, they wanted to do that. Initially George had just thought of using regular guitar amplifiers. And back then, guitar amplifiers were high school guitar amplifiers. I mean, they didn't... There wasn't much fidelity there at all.

In talking to both George Crumb and George Wilson. They wanted, as you know, as high quality as they could, because they were ... They actually wanted the sound of the bow against the strings to be amplified and be part of the music. You're not gonna do that with a Gibson guitar amplifier. I don't care how much you pay for it, it's not gonna be there. So what we ended up doing was buying KLH. I think there were four model sixes, which I don't think are made anymore, but it was a bookshelf speaker and we customized that…had the plant department carpentry shop make some hood…well let's just call it a hood that would fit over the top of the speaker. And we built into that a parametric equalizer and a 100-watt power amplifier. And a pre-amp. So you plugged the pick-up into that and then so it should feature the two violins, the viola, and the cello.

And we also were very picky about the pickups and I did a fair amount of research and found out that the best reputation for strings at that time was a company called FRAP. Which was out of San Francisco. And they made, or actually it was a stress, a string gauge. And so you put that on with a little beeswax, directly onto the bridge of the instrument. And you have to play around with it but each one was different. I mean even the two violins that the piece had

was different. But it was specific for that to get the best balance. And it worked out really well. They were, I think they were 250 bucks a piece.

Joshua: Wow. And that was just the pickups?

Henry: Just the pickup. Well, it was, uh, the pickup and a little box. There was next to no output coming out of the gauge itself. So to get that up to at least mic level there had to be some electronics involved in that. So there was a little, little metal box that set on a chair or under the chair of the performer. So they just plugged in that and the whole thing worked. We did it in Rackham. It worked really well.

Joshua: We have the recording now actually and, compared to most of the other performances from the '70's, which they typically used guitar amps and contact microphones, the quality is certainly much higher.

Henry: Oh, you know I didn't. I'm enough of a perfectionist that we wouldn't, I wouldn't, didn't wanna do it. A contact mic and guitar amplifiers, I knew just would sound like crap.

Joshua: (laughs). How was the FRAP different from contact microphones, and why did you prefer it?

Henry: Well, they detected what was going on the bridge, obviously. But then it's similar to a microphone, but it's a lot higher quality. And much more dynamic range. Most contact microphones have a very, very limited dynamic range. It was either too soft or too loud – and then when it gets too loud, it usually distorts. So we

used the strand agent. It worked really pretty well. The only problem was getting the dollars to pay for it. Fortunately, this came and there was ... I don't remember where the money came from. Whether it came from the School of Music or not, but there was a budget.

Joshua: Specifically for that commission?

Henry: Specifically for that.

Henry: I don't know if there was an endowment or… I just don't remember. It's been too long and, you know, I wasn't involved in that anyway. It could have cost as much as we needed.

Joshua: Were you working mainly on your own on this or did you have a team that was kind of helping you design this whole system?

Henry: Well, I had guys that actually did the fabrication or what happened to my design that actually worked for the School of Music, except for the carpenter shop. That was the plant department that did that. The university plant department did that. Maybe the tops were like 11 by 12 inches or something like that. They fit directly on it. It was stained and varnished to match the speakers so it looked really nice. And I know that they kept those boxes around. I left in ... '78 I think ... '78 or '79. But they were still using them on a regular basis for the Contemporary Directions Ensemble.

Joshua: I'm wondering now if I can find them.

Henry: I have no idea. I mean now it's been long enough that they may have been pitched.

Joshua: Possibly. A couple letters referenced to the Crumb boxes, which seem to be what you built.

Henry: Yeah, that's what we were doing. Named after George.

Joshua: Of course. Another name that I've had come up as someone who worked on these was Thomas Munsell?

Henry: Tom worked for me directly. And he was actually the one that did the fabrication of it, because we bought the pieces. There was another company in San Francisco called Op Amp Labs that made various circuit boards or things that plugged in. And we bought the equalizers from them and the power amplifier and the power supply and Tom did the fabrication. Tom had a very unfortunate accident on the Ohio turnpike several years ago and he's no longer with us.

Joshua: I'm sorry to hear that. Did you put together like a schematic for him and then order the parts?

Henry: Yup. And so we had the university carpentry shop. The plant department did the actual building of the box. And then we actually did a very nice front panel. We had the physics instrument shop do that and it was engraved and it had a little dial. I think it might have even said Crumb Box on it.

Joshua: I'm really going to have to hunt for these things now. No, that's interesting.

Henry: We did a nice job on it and it was designed specifically for the premiere of that piece, but we knew that the stuff was going to stick around for a while, so.

Joshua: So it was worth it to put it together to last.

Henry: So there were no wires running in-between. The only wire running in the, the power cord and the box from the, from the FRAP pickup. They heard of it. They recorded for their friends.

Joshua: What did you use them for after the premiere? Was it just amplification of strings?

Henry: Primarily for, well, not necessarily just strings, but we, we had the FRAP so that was used a lot. But there, we probably needed some stuff with a clarinet and they were trying some other things.

Joshua: Just whenever Contemporary Directions Ensemble needed?

Henry: Needed that, or if we needed a nice sounding box for an illustrious lecture or something like that. You know, 'cause sometimes they'll do things like, uh, I don't know if we still do it, but there used to be a teacher's conference every January.

Joshua: Okay. So these were used for something like that?

Henry: Yeah, there. That one. They were usually ... That stuff was usually done at the league. So, we'd carry him down there at the league. And then again, that was a nice sounding system to amplify anything that needed to be amplified.

Joshua: Okay. So, you built all of these and had this budget with the knowledge that they had to last.

Henry: Well, it was...you know it's a straight university. You don't have money to throw around.

Joshua: I know how funding goes, for sure.

Henry: It's always a fight.

Joshua: So what was the response of the quartet when you showed them the design? Or were they involved?

Henry: They weren't really involved in the design. I mean, they just ... Since they were carrying full loads of teaching- You know, getting them to rehearse was probably all George Wilson could do here. So, they weren't involved, and they... I knew them all. So they kind of, they trusted me. It wasn't like somebody walking in.

Joshua: "So, you can do this to your instrument."

Henry: Oh, totally, yeah. "Do you want me to do what on my instrument? I don't think so." (laughs)

Joshua: Some quartets don't use their main instruments for the piece.

Henry: That could be. They might not have told me.

Joshua: There's a lot of hitting the bow on things and other techniques.

Henry: There was, yeah. There were times when as I recall it now… good point. They would actually take the bow and invert it. Then strike the strings, and I think at one time, they actually were striking the side of the instrument.

Joshua: Yes, tapping on the wood of the instrument. There's that and there's bowing crystal glasses and -

Henry: Yeah. There were some glasses. That's right. I hadn't even thought of that. But that wasn't amplified.

Joshua: And neither was the speaking or the shouting in the piece?

Henry: Right. Yeah, the glasses were just would have been a glass harmonica-like type thing. Except they were using the bows and not wet fingers.

Henry: But they weren't too particular about their instruments. And I don't, I don't think any of them had a Stradivarius or anything that. But there were some still some fine instruments.

Joshua: I can imagine, especially at that time, when amplification wasn't really something string players were used to, even the idea of putting beeswax on the bridge might have been scary.

Henry: Yeah, well it was on the bridge and it was... Although I, you know, it was that fine line between having enough to hold it and having too much. And when you, when you had too much, then you'd lose the high frequencies.

Joshua: Were the FRAPs very heavy then? Did they dampen some?

Henry: No, they were light. They were about three-eighths of an inch in thickness and maybe just a tad over an inch long. And they were encased in plastic with the bottom being open. That's where you attached it to the bridge. Now I don't think I'm quite certain, but I'll bet Op Amp Labs is no longer in business. And I kind of doubt that FRAP is because I haven't seen an ad in years. Still get all the music magazines, even though I haven't worked in that there field in, in years. You wanna keep up.

Joshua: What have you been up to recently, if you don't mind me asking?

Henry: Oh, I officially retired, but for the last twenty years, I worked in broadcasting. And I was producing radio programs. And when it came time to retire, we started a company, Moe and I started a company to actually record conferences and make CD's on site. So people can actually go home with it and listen on the way home. It’s all related. Well, I read, you know, from the day I turned 16, it would have been in broadcasting or sound or something. I was at WUO1 for three years and then I was at school for seven or eight.

Joshua: So you would have just, probably have just arrived before this project.

Henry: It was really, really early into it, yeah.

Joshua: That's a heck of a project to take on right as you start!

Henry: Well, it wasn't, you know it wasn't ... I was used to building stuff, so that it was not, wasn't a real problem. And Tom was quite adept at building stuff. So, that was again not a problem... getting into a project and, and here. Do this. They might need it still, the FRAPs. I don't know if Roger -

Joshua: Would he be the person to ask?

Henry: He would be the person, yeah.

Joshua: Okay. I'll talk to him. He did help us find the reel-to-reel tape, which we think was put on the shelf after you were done with it and then not touched for all those years.

Henry: I wouldn't either. If there were any splices, it's guaranteed they're going to come apart.

Joshua: The quartet, were they happy with the results?

Henry: I think they were delighted. I mean. They went into it with much fear, in trepidation and afraid they would make fools of themselves. Uh, didn't happen. I mean, the audience was just eating it up. You probably heard the, the applause at the end. I mean it wasn't as smattering of twenty people in the audience that was probably two-thirds, three-quarters full. I mean, it holds about eleven hundred. So there were probably, you know, 800-ish, 700 to 800-ish people.

Joshua: Was there audience interest in like coming in and seeing the whole setup on stage afterwards you might-

Henry: I don't think they allowed that. At Rackham, you know Rackham? There are the two stairwells that can open up. But generally, for the performances, especially for this, the string quartets and the Burrough Trio and so forth, they closed those.

Henry: So for somebody to go around... They, they really couldn't get to the instruments unless they hopped over the edge of the stage. And that just- That's poor. At least at that time, that was cool to watch.

Joshua: Th probably be frowned upon today! Can you tell me more about the products from Op Amp Labs you used?

Henry: Well, it was the, uh, Up Amp Labs made several different... They made a lot of different tubes of things that would be equalizers, pre-amplifiers or… They made about four or five different power amplifiers. And one of them was a 100 watts. And that's the one we purchased and I knew it could have been a little tiny, but I think that the KLH6's didn't have that much power capability anyway.

Henry: They were operational amplifiers. They were all solid state operational amplifiers. So, the, the frequency response was not, not exactly DC to light but it'd be two or three hertz. I mean, we had to be careful and make sure that they were turn, the instruments were turned down, or the amp, the amplifiers were turned down when they put the clips to the amp, to the frets on the instruments. You can tell it's great. Because of the bass response, it was so great. And the high, the high frequency response went out to I think close to 40 kilohertz. Now, the tweeters

wouldn't do that. But the amplifiers would. And I didn't do any band passing. They were just all hanging out there.

Joshua: Was any reverb discussed or anything like that? Or was it just straight?

Henry: We didn't. I don't think we ever discussed reverb. And at that time... well it had to be springs. And plates. Now the school did own... We had a plate in the electronic music studio and we had a plate in like the 1260 School of Music. They were what the empty plates, but that was all. We didn't have any springs. And with the deal, electronic stuff really didn't you know, electronic reverbs really didn't come along until five to ten years after I left.

Joshua: So in that performance then?

Henry: It was just straight and any reverb was natural to the hall.

Joshua: Do you think the design was quite successful? Were you happy with the result?

Henry: Yeah. I mean, we would do... I wouldn't do that now.

Joshua: Of course, right. (laughs).

Henry: But, you know, the decades since then. I didn't want to get into ... let's just say messing up the, the mix. And that's why, you know, I made the, the violinist set their own levels. You know? In conjunction with, with the two Georges. Over there like walking around the hall. But then I don't think that they ever talked about amplifying the glasses.

Joshua: In addition to the performance, we have tapes above recording session of the piece that we have very little info on, except for the fact that these tapes exist. And it seems to have happened on the morning of the premiere? Do you possibly remember being involved with that at all?

Henry: That would be... We probably would have just really done scratch recordings. That would have been at the dress.

Henry: What our focus was, was all on getting a recording of the performance.

Henry: I don't remember if composer's recordings did a release of that or not. They may have.

Joshua: They didn't actually, not that I've been able to find.

Henry: We were doing a lot with them at that time. And maybe they didn't, they might not have been able to get funding for them. I mean that whole lot of that stuff is. They weren't self-funded. They went out and got funding for every record they released.

Joshua: We found the recording that was in one of the storage units here. And there's a couple people who requested dubs. I think they might have it still. In some of the letters I found, it seems the dubs that were sent out were actually of the recording session because some of the performers were uncomfortable with some of the mistakes that were made.

Henry: Could be.

Joshua: Do you remember any, any of that editing process, sending out dubs?

Henry: I don't. I don't remember. It could very well have happened. If it happened, it was probably the next morning. Because I don't think George Crumb stuck around. But he would have been, he would have had... I would have insisted that, that he was there for any editing. I don't remember that, and could, it could have happened, but if I did, it was probably a- I was probably editing a safety. Because again, I wouldn't.

Joshua: You would have handed it to him as you left and worked with him.

Henry: Yeah. Well see, I wouldn't have been the one to make the dubs anyway. So that would have been one of the guys who worked for me. I think three different people made dubs for people.

Joshua: So, this is a letter from, from you. It seems you probably had to head out of town so quickly that you couldn’t have them edited.

Henry: That's a signature. That could have been.

Henry: If I did it editing, I probably would have entered in a safety. That's the problem with a long tape.

Joshua: I saw music advisor of the USIA might have been interested?

Henry: Well with the United States Information Agency. And they might have been interested in it. I know they were the ones that, when one of the groups from

school went abroad, that was all worked through USIA. Like my wife was in the chamber choir when they went to Italy and sang in the best of two worlds. And that was all USIA people and I worked them, because we sent equipment with them. I didn't get to go. Well, not frequently, but the school was going to get more into doing things with the USIA and sending groups abroad. But not ... I never went. I would have been glad to if they paid my way. That happened since, but, you know, with other people. But yeah. I've never been to Europe when I paid my own way.

Joshua: That sounds nice! (laughs).

Henry: Been there a number of times, but never. It's always been for somebody else.

Joshua: So, of the requests for dubs was from David Bates, was a composer?

Henry: David Bates was a... I remember David. He was a doctoral student. I don't know if he finished or not. I don't remember, but he was a really good guy. He went West I think.

Joshua: Yeah, he finished and then he went out to Fresno State. He actually won the Prix de Rome, but he passed away during his time. He had to leave the American Academy in Rome and come back due to complications from cancer in 1974. So he passed away very young.

Henry: That was after I left here, but so that, that's a shock, 'cause David was just a really, you know, he was a gifted guy. And he was, you know what I mean. He knew

how to be around people. You can't say that about all composers. But he was a great guy. I liked him a lot.

There was another guy that David was actually in business with. A guy named Terry Kincaid. Now I haven't seen ... He and, he and his wife had lived here in town, and actually his wife had worked at the School of Music listening room. But I haven't seen or heard from them. Now they were two opposites. David was very personable and Terry would sit there and they made electronic music instruments. And Terry was much more into making stuff and David was the creator if.

Joshua: Did you work with him much?

Henry: Not really. I mean, I knew him and I worked with him because he was a DMA. But I didn't… we weren't buds. Now, I'd go out for a beer with David. I wouldn't do that with Terry. David was one of the people I really enjoyed... in terms of, 'cause a lot of the composition people were so introverted. I just couldn't get to know them anyway. So.

Joshua: Then what was George like? Do you remember his time there?

Henry: George Wilson?

Joshua: George Crumb.

Henry: Oh, George Crumb. I wasn't around him that long, but as I remember it, we got along just fine. And when I said something, he would listen. And if he had

something to say back, he'd say it back and he wouldn't worry about stepping on toes. He was the guy calling the shots. And I'd give the composers that due. I always did. You know, I don't know what they were thinking or what they wanted. Hopefully we can communicate well enough that I can get them what I do and meet what they were, what they wanna do. Yeah, yeah. Well, you can't always do things that they wanna do. Like Terry would want to record so that we were recording. The needle was at plus 10 as we did. You're going to erase the tape. It's gonna self-erase and you wouldn't you wouldn't insist on doing that at the time but don't try to play it.

Joshua: Right. (laughs). So what were what were the quartet members like?

Henry: The, the quartet was always ... I found it to be stand-offish. And the only ... I worked with them more when I worked at WUOM. Because we did like broadcasts of their performances. But at the school, I didn't ... I think the Crumb piece was about probably about the only thing I did as a group. Now I would work with them as individual instructors with that and we were recording the students. But I didn't, I don't recall working with them as a quartet.

Joshua: But in general, they were kind of standoff-ish.

Henry: They were standoffish, much different from the Burrough Trio. They used to refer to themselves as the Broken Down Trio. (laughs) Just a little illustration there. There it is. It's very different.

Joshua: How long did you end up working at UM for? Was Roger [Arnett] the person who followed you?

Henry: Roger followed me, actually there was some space in there, some time in there. Tom kind of took over. But Tom ... I mean, I don't claim to read music, but I can follow a score. So, when I was recording the orchestra, I was always following the score. Tom, was no. Got it. He was rock-n-roll. He was, you know. And then, I ran into Roger one day at the art fair I think. And said that, "I think they're hiring at the school of music." And I'd been talking to Tom or something after I had left. And he said, "I'm going to go down there." And last I heard, he was hired.

Joshua: Interesting. How did you know Roger before that?

Henry: We, there was a group, uh, that ... Oh, shoot. Who was it? The admissions director at that time and I remember even calling his name. Had a group called The Amazing Blues. And it was a group that was primarily to attract the donors to the university. And Roger had worked his way into being the sound guy of that group.

Henry: Initially they wanted to do, just do it themselves or having the, the admissions people. You can't do that. I mean, it was just ... I think there were, I think it was an octet plus other instruments.

Henry: So, you have got to have somebody running sound. They can't play high school rock-n-roll when you're doing that. That's my big put down is going to somebody's high school. So Roger worked his way into that and then how he got to know, it's how I got to know him.

Henry: And then, when I'd mentioned to him that school was hiring, I think he had just, either just got his baccalaureate or was just about to.

Joshua: So, he was very young at the time.

Henry: Yeah, yeah. He was, you know, 21, something like that.

Joshua: Yeah. He's been a fixture at the-

Henry: At the school ever since.

Joshua: Yes. I think he's been there longer than anyone on faculty at this point almost.

Henry: I wouldn't doubt it. Because I was, I was there eight, and I was out. I couldn't take the in-fighting. It's usually with faculty by stating at each other and ...

Joshua: Was it that tense?

Henry: Oh, yeah. It was that tense. You know, I can find another job. And I was you know, next ... That was probably on a Thursday or Friday, and the next Monday I had a job.

Joshua: Right. (laughs). How was that?

Henry: It wasn't at a university. But, that was just too petty. Listen. I didn't, I didn't even know because I didn't want to know. I'm going to handle my end of things and don't show me that. Don't need that. We're not here for that. So, I've always, you know, I'm always so close to the students I've worked with, to try to do what I can

do for them, but I don't need to put up with some of their stuff from the faculty members. It was just... wasn't necessary.

Joshua: So you had other options?

Henry: Oh, yeah. I mean, I had. Different times in my life I have people knocking on the door. (laughs). My interests were elsewhere by that time anyway. After eight years, I don't know how Roger can take it. I was just, you know, a little bored. If I had had constant stuff like the, like the Crumb boxes, I could make things, but I think too that the Contemporary Directions got a little stodgy.

Henry: And I was just, you know, or I was just not pulled into work with things. I mean, I like George. I went out with George a number of times, George Wilson. But I haven't seen him in years.

Joshua: Well I certainly have a wealth of information now, much more than I did.

Joshua: I've been working under the assumption that you had modified guitar amps and had contact mics.

Henry: No. That's what George had wanted to do, but ... And now with guitar amps like, I think might be a little bit better than what they were at that point. I don't know. There certainly are, are amplified boxes now. Except there weren't at that time.

Joshua: Great. Well I can, I cannot thank you enough for be willing to share all this.

Henry: I'm glad I could help you out, I mean. You know, that woulda been done ... A recording was done either with an AKG C-24. Or a Neumann SM2. We had both, and I don't remember which one we used, but…

Joshua: Well thank you, and I hope it's okay if I reach out again.

Henry: Just give me a shout.

Appendix C: Interview with Norman Fischer

As cellist of the Concord String Quartet, Norman Fischer performed *Black Angels* many times; the CSQ's recording of the work was one of the first to be commercially released. I interviewed him in his studio at the Shepherd School of Music at Rice University, where he is the Herbert S. Autrey Professor of Cello and director of chamber music, on February 18, 2017.

Norman: Well it [*Black Angels* project] sounds really, really interesting. Gathering the stuff while he's still alive, and all that stuff. But, you know, when we talked before, I went through my whole thing about this, as far as performance is concerned.

Joshua: No? We actually haven't discussed the work at all before.

Norman: Oh! Okay, well this is a performance practice issue in our own time, which I think is really interesting. When we look at issues about, you know, how did people play Bach, we don't really know. But we have treatises and we have other kinds of things to go on. And, of course, there would be as many individual performance practice things in one German city as another one, just on the taste of the people.

But, when we first did this, it was such [an] avant-garde, uh, pressing kind of a, um, issue, about what the piece had to say. And to come out strong. So the whole

thing about amplitude of the amplification was a big deal, and, so, when we – we were the first quartet to tour with this.

Joshua: Right, because the Stanley Quartet played it once.

Norman: Right, and then there was… We were the second to record it, because the New York…

Joshua: The New York String Quartet?

Norman: Yeah, the New York String Quartet did it, and we recorded it right after that. Or theirs came out before ours came out or something like that. Cause we recorded it in ’72.

Joshua: Yeah, I think theirs came out in ’71, if I remember correctly.

Norman: Right, right.

Joshua: And that was the recording session on Thanksgiving Day, or the night before Thanksgiving Day that went through the middle of the night, right?

Norman: No, it’s not. That’s Third Rochberg.

Joshua: Oh, okay. Jennings is mixing up stories, then.

Norman: Okay, right. So what actually happened is in 1972 – we recorded it in May of 1972. It was the last recording session of the three sessions that we had to do three vinyl records for Vox of the “Avant Garde String Quartets of the U.S.A.”

Joshua: Right, I have that collection, actually.

Norman: So, we recorded in that session: Third Kirschner, the Crumb, and Christian Wolff Summer, I think…or Feldman. No, we did Feldman the first, so it was one of the littler ones. And [it] was right after that that we picked, the next day, that we picked up the Peresson instruments that were made for us, down at Peresson's place. So I remember all of this sequence pretty well! But the Thanksgiving Day thing happened with the Third Rochberg. That was in November the following year. So [the Crumb] in May, then we did the Second Rochberg in October – it was like Halloween – and then Thanksgiving was the Third Quartet.

Joshua: And that [session went] through the night, and [Rochberg's] Swiss Army knife story and all of that?

Norman: Swiss Army knife story, okay, so…want to make sure that didn't confuse – what's the Swiss Army knife story?

Joshua: Jennings said that, because you guys were recording Crumb through the middle of the night, there was a point in the recording session where it seemed like you just weren't going to get it done. At that point, Crumb pulled out a Swiss Army knife and […] pulled out every single thing and told you what it was. It took 15 minutes, but it calmed everyone down and then you continued on.

Norman: [laughs] Yeah, that sounds about right! It was another one of those things, where we were at the session, and Joanna Nickrenz, who was our producer, was looking at the score and saying to George, "It's so beautiful – every notehead is so perfect. Could you make a notehead for me?" So right there he went, these really tiny perfect circles.

Joshua: When I visited him he told me that he started drawing his staves freehand.

Norman: Really?

Joshua: Yeah. In the past couple years he's just stopped using a ruler, apparently. And they're perfect, cause he's still composing every morning for six hours.

Norman: Anyway, when we went on tour with this, and of course this is originally contact microphones plugged into guitar amps, with the treble all the way up.

Joshua: Okay, gotcha.

Norman: And reverb. So that was the sound, I think that's in the instructions…

Joshua: If I remember correctly, in the published instructions, it's not in that. It's not that specific, it just says "amplified.

Norman: Amplified. Okay, so the…it's not in there, let's take a look.

Joshua: Okay, so it just says set the reverb on high, but says nothing about raising the treble.

Norman: Okay, so that must have been something that we did. So raising the treble, for more maximum penetration, and for it to be cranked up, y'know. So when we were going from different venue to different venue, we were having a terrible time with these contact mics. We'd travel with a whole extra set of contact mics because something wouldn't be working. And then, when we'd have four guitar amps, then we'd have to spend a lot of time trying to balance them.

Joshua: Especially when you're switching contact mics and all that. Everything shifts.

Norman: So we'd have to have somebody out in the hall and playing between different guitar amps to make sure that one wasn't balancing over or too little. So, the pivotal conversation I remember – this is right after we had played in, sort of a…at the PepsiCo Headquarters, in Purchase, New York.

Joshua: Seems like an interesting place to play *Black Angels*, but I like it.

Norman: Yeah, yeah. My dad was a vice president of PepsiCo. And so we did a "Mostly Modern" series at PepsiCo.

Joshua: Headquarters?

Norman: Yeah. So it was in kind of a…meeting room. Fairly dead. Low ceilings. And so we basically played all of our avant garde rep, with some other things. As a matter of fact, I might even have an old brochure from a…[rifles through drawer]. From this series, would have been an identical series that we did in Binghamton. Here, you can have one of these. This is our very first, sort of…

Joshua: Promotional brochure sort of thing?

Norman: Yeah.

Joshua: Wow. […time…] Jennings did have quite the hair!!

Norman: [laughs] Yeah, I think we all looked a lot different. Um…

Joshua: It was the '70s though, you're allowed.

Norman: Now I've seen this, so I know it's around. Oh, wait a minute, let's put this over…sorry to take the time here, I just…

Joshua: Oh, no problem. I appreciate it. A large portion of my research is based on what pieces of paper can we find from 1970.

Norman: [laughs] Okay, so anyway, so we're playing a 6-concert series, and the president of PepsiCo wanted to have an event, cause it was co-sponsored by SUNY Purchase, which had just been started. So SUNY Purchase, the President of SUNY Purchase at that time, came over. And Michael Hammond was the first Dean of Music at [SUNY Purchase], so Michael Hammond and my father…well, Michael Hammond's father-in-law hired my dad at Ford before he went to [PepsiCo]. So there's all this kind of funny stuff that, anyway…so Michael Hammond helped to engineer this connection between PepsiCo and SUNY Purchase. And then it became the PepsiCo Summer…I mean, it started spinning off into PepsiCo Summer Fair.

Joshua: This all started in the meeting room, playing avant garde music?

Norman: Right. And we tried different places. There were different rooms in the headquarters that could have them, but this one was inside, so they decided this was the concert where they were going to demonstrate this stuff, so they sat in the front row. You know, it's a little bit like the parents of the groom and the parents of the bride.

Joshua: Right, sit right there.

Norman: So that was the protocol. And we said, I said to my dad I said, "We really don't want them sitting in the front row, it's gonna be really loud." And he said, "No no, they have to do that." And I thought, "Oh my God…this is gonna be terrible."

So…and of course the Crumb was the last thing on the program. [still rifling through drawer] Well it might be at my house, I'm sorry to say.

Joshua: Oh, no problem. If you do come across it, if you'd be willing to send me a picture of it, I'd appreciate it.

Norman: Okay, good.

Joshua: Thanks!

Norman: Yep. Okay, so what happened is that, right after that, we had, we turned the volume down a little bit, cause we just couldn't.

Joshua: Yeah, you can't do that.

Norman: But even then, when we started the opening, *Night of the Electric Insects*, and you see them go [motions shock, deep breath]. But they couldn't show their own horror, right? They had to sort of stay, ties and everything all set. So after that we sort of said…I called George. And I said, "George, we're having some issues with the volume on this, and want your advice about what to do. How loud should it actually be?" He says, "Well, should be pretty loud." And I said, "Yeah, okay, well, could you help us a little more?" And he says, "Well, I don't know…think threshold of pain?" And, so, we said, "Really…okay…" So, anyway, so we were…it was like a rock concert. And we tried to let people know that this was gonna be...

Joshua: Threshold of pain, yeah.

Norman: So, what happens, in turns of this performance idea. Treble's up, reverb's up, everything, everything the instruments are doing is amplified. But tongue clicks, the glasses…

Joshua: None of that is.

Norman: None of that stuff is amplified. Okay? So that makes kind of a whole other kind of acoustical environment. So you got these things going back and forth, between what is and what isn't amplified. So its kind of a depth of field thing, a little bit? So then, I go to a performance that the Miro Quartet played here, at the Menil Collection. George was there. And this was right after they recorded it for the Crumb Collection, something like that. So, this is overhead mics, the amplification was a little more than the acoustic things. So you can still hear the acoustic sound, mixed in with this. I didn't hear that much reverb. And, certainly in terms of the amplification, it was not.

Joshua: Not threshold of pain?

Norman: Yeah. And it became a kind of a, a little bit I guess what we would think of, the avant garde experience, which is grab you by the collar and screaming in your face, and then, using the same words in casual conversation, with…everything's toned down, because we know what the discussion is. So, performances of Beethoven now, after this, after what they were really edgy experiences, you know? Doesn't mean that people don't try and do that, but…

Joshua: It's almost impossible…

Norman: With hundreds and hundreds of years of performance practice going through and doing that, and Crumb is certainly getting that many performances now…

Joshua: Yeah, there are a dozen recordings out there and the piece is 50 years old.

Norman: Yeah, yeah. And I just coached it in Singapore, also, and you know, with that. So it's also a wonderful work for creative dynamic. Anyway so the Miro performance is over, and there's a question and answer period. And I said, "So, George, when we played this, it was 'threshold of pain,' and the Vietnam War, and stuff, and now, there's this. This is so pleasant!" You know. And he says, "The world has so much pain now, we don't need to have any more pain." So, I don't know how many years ago that was. Maybe 5 or 6 years ago?

Joshua: Yeah, I think that recording came out 2011 or 2012.

Norman: Yeah, so it would have been right after that I think, that they came in and toured. Okay, so now you have this performance practice issue, right? So, what do you do? You know? The thrust of the thing, when the piece was written, is this in your face, really visceral, it shakes you up sonically, you know? It really is…it is what a rock concert is. It gets, goes into kind of a core base of your stomach, you know, and into your pit emotionally. And then, now you have this, which is enchanting musically, and still incredibly interesting, and dramatic, and all the things that are intrinsic to the piece are there. Except this other thing. And, you know, its…if…so you ask yourself, What…how do you council, how do you, as a performer…if you know that exists, what do you do? Do you take the elderly

composer's looking back on his life and saying, "He knows better now, looking at his work and seeing what it actually is"?

Joshua: Or do you take it as what it was when it was actually written?

Norman: Right. And so, I think that's a very interesting paradigm about…what do you do? And say you want to do it in the spirit in which the composer wrote it, which you hear all the time. But then the composer reflects on it and says something's different. So it's an open question.

Joshua: It's hard to argue that you should do it in the spirit that the composer wanted when the composer's sitting right next to you, telling you to do it a different way.

Norman: Right.

Joshua: It's interesting, cause I know he coached the Miro Quartet many times on it, and since then actually has said that he found that to be the most accurate recording, in terms of what he put on the page.

Norman: Mhm.

Joshua: But I'm wondering if a certain amount of accuracy had to have been lost, back in the '70s, with his specific performance instructions. The threshold of pain and all of that, you're not going to be exactly accurate, when you're going for that atmosphere.

Norman: But what's the point of the performance, you know? The point of the performance is to go for the…[gestures with hand] You know, if you're trying to be accurate, is that, you see what I mean? The…I'd be interested, for example, as he evaluates

our recording, or Crumb's recording, or you know, what was the nature of the inaccuracies? Because, if you sort of say, "The rhythms are wrong," that's not good. Or if its…or is it the silences are too long or too short? Or…exactly what would be the…

Joshua: Yeah. The Kronos also brings up a whole other wealth of questions with their more theatrical presentation of it, and, actually I heard this, that they've never worked with Crumb on it once. So that kind of provides a whole other thought process about approaching the piece, since he has not influenced them at all.

Norman: David Harrington was the second violin in Mark Sokol's high school quartet. And so, when…and was, you know, friends with Mark. So, according to David, when he heard our *Black Angels* performance, that was what got him into Kronos.

Joshua: Right, cause he heard a radio…I'm not sure if it was live radio performance or just your recording was playing on the radio. But that was kicked him into that.

Norman: Yeah, he said, "I gotta do this."

Joshua: I can see that.

Norman: Yeah, but also his connection with Mark was, was interesting. You didn't know that?

Joshua: No, I didn't know that. That's almost uncanny. And also the fact that, I believe it was Mark, is Anthony Elliott's…

Norman: Anthony Elliott's brother-in-law, right.

Joshua: Connections never end, it seems. This is probably getting a little technical, if you don't mind me asking: Do you remember, back when you were coaching with Crumb, what exactly did he mention, in terms of the playing of the gongs? Or, of the tam tams? Cause he…there are various ways that people have recorded it, some that worked with Crumb and some that didn't, so even the ones that worked with Crumb, they approach it in various ways.

Norman: Are you thinking of the bowing of the tam tams?

Joshua: Right.

Norman: Whether…what kind of harmonics you're…

Joshua: Yeah, what kind of harmonics and tone you're going for.

Norman: I don't remember specifically anything that he said. What I remember is that, as you would expect, the individual tam tams, to get them to speak at all, and to get the right angle of the bass bow, and where the thumb is so you can stabilize it so you can pull against it, and whether you put the counterpressure of the thumb closer to the…because many times, if it's hanging, if you do it too far away, it starts to flop. And, to get sort of…so many times, it was whatever came out. Sometimes it's a very low harmonic, and sometimes it's a screechy, high kind of harmonic. So I don't remember any particular…but that doesn't mean he didn't give it to us.

Joshua: I'm just curious because I found a letter at Michigan, in which he instructs the Stanley Quartet. The entire purpose of this letter was to tell them that he wanted the harmonics to change as you bowed it, so he instructed them to move their

finger back and forth. I haven't heard that in any recording except for Miro's, I believe. I was just wondering if he had brought that up with you guys at all.

Norman: I don't remember that. But that doesn't mean that he didn't say it.

Joshua: Of course, it was 45 years ago. As a cellist, obviously you have the God-Music movement. What specifically was your approach to that, and were there any kind of outside connotations, be they religious or related to the Vietnam War? What was your approach, both technically and kind of philosophically to that movement, given the importance of it in the 13 movements.

Norman: I'm a singer, as well as a cellist. So that was my first thing, I sang a lot, and have always come at my work as a singer. So that the notion of doing the God Music ended up being an aria to me. And so, when you say that I felt the color of the line and where it would go and how it would hang out and move in the same way that you would want something to be organically…an organic phrasing to it. So the notion about pulse and rhythm becomes a spatial dimension rather than a temporal dimension. Make sense to you?

Joshua: Absolutely. So is that your approach to any almost lyrical music?

Norman: Depends on the style, right? But I certainly felt that was appropriate for what this was. So the tricky part about that is the guys on the glasses have to have enough of a inner pulse so that they're able to release the glasses and start the next glasses in the right kind of rhythm, because it's, again, it's a technical thing they're not used to doing. So eliminate variables as much as possible. Some of this is really fresh in my mind because I've been coaching the Singapore guys on this, the

T'Ang Quartet. They're the quartet in residence at the Yong Siew Toh Conservatory in Singapore. And they studied here, at Shepherd School, and they were the first quartet in our program. And so, they contacted me, and sort of said, "We're about to do *Black Angels* – is there any way that we could interest you in coming to Singapore to coach us?" So I said, "Yeah! I'd be happy to do that." [laughs] And so we worked out, Gene and I, did a Fischer Duo recital plus, you know, some other things. But then I coached this, and it was great. They also did lighting and stuff like this, but the very coolest thing that they did was put the glasses on glass tables with light from underneath. Was just beautiful, because the lighting…first of all, it was possible to see the glasses. And since they were doing things sort of with dark – cause, you know, stand lights, so things were in the dark a lot – and then when the lights came on with the glasses and the water would break up the…it was quite beautiful, very very nice.

Joshua: And to have the lights change at that moment in the piece is very powerful.

Norman: But I would say that was the most…the way I would approach it was trying to find the right openness where I would feel the inevitability of where one note would roll into the other. [sings] It's kind of a…open, sounds a little like an Arabic singer or something, doesn't it? Did he say anything about what his inspiration was from that, or…?

Joshua: No, I haven't had the chance to talk to him specifically about it. It's interesting, actually, because with the majority of this piece, the sketches are fairly limited, compared to what you expect. I think I have 32 mostly blank pages of sketches, and then just a full draft of the piece. The majority of it was written out in his

head before he put anything on paper. But God Music he wrote out almost in it's entirety in the sketches before actually writing out the draft. So it seems like it came out of his head in just one fluid thing and just happened. Which seems to be how he writes half the time – he hears it in his head and puts it down and afterwards people like me try to put a theory to it. So how did you – you contacted Crumb of course, I think I sent you the letter I found at the Library of Congress from you – how did you hear about the piece before that?

Norman: Yeah, I was thinking about this. You know, I grew up in Plymouth, Michigan. So Ann Arbor's right there, and I was a student at Oberlin. And I heard from somebody who had been at the performance, or some word got to me somehow about this amazing piece, and I had to get my hands on it kind of thing. And I wish I could remember who I heard that from. But it was my senior year in college, so I said I have to get this, we should do this. This is a piece that should be heard, it sounded amazing. And, so, then I just – do you remember the date of the letter I sent to George?

Joshua: I believe it was a just a month or two after the premiere, November or December of 1970.

Norman: And then the idea, that there's a string quartet that had to be conducted, and I thought, "Come on…" [laughs]. But also I knew the Stanley Quartet a bit, I'd heard them as a kid, and I couldn't imagine them doing anything, doing any new music at all.

Joshua: Really?

Norman: Yeah, yeah. Cause of their age. These old guys…

Joshua: Yeah. While you were growing up they would have had their commissioning program, I think, right?

Norman: Something like this. I'm sorry, but doing a piece like this, Ross Lee Finney…and, you know, these guys were doing this stuff, and that's…

Joshua: [Gilbert Ross] actually retired two months before the premiere.

Norman: So it was Rosseels?

Joshua: A name I can't pronounce that starts with a G… Grzesnikowski? If I remember correctly, because Rosseels was in it before.

Norman: Oliver Edel was the cellist, though, right?

Joshua: Actually, it was Jerome Jelinek.

Norman: Oh, oh, oh. Jerome Jelinek.

Joshua: Yeah, he passed away just two summers ago.

Norman: So then, I can't remember who that was. I have a…I thought I had interesting books in this place here.

Joshua: Oh, I didn't know he had a book. [Gustave Rosseels]

Norman: I wonder if there's anything in there about the Crumb.

Joshua: I can't imagine that slipping by! A Remembering Journey. I'll look into that, I assume U-M will have a copy somewhere in their library system, since it was published by them.

Norman: Do you want to take a look at that? Let's see if there's something in there. Should be easy, if it's done chronologically.

Joshua: Let's see. Division of chapters…there's World War I…1927…1935, 1944. Getting there. Here's a couple chapters about the Paganini Quartet… Just saw the words "our practically brand new Chevrolet." Alright, here we go. So this is an announcement of being faculty at U-M. Here's 1959. Here we go, 1970. Talking about his travels to Europe, and…makes no comments about it, actually. The only comments about 1970 are the trip. Here's the comments from '69 about the Cooper Concert.

Norman: Paul Cooper?

Joshua: Yeah, 1968. The premiere concert was Penderecki *Stabat Mater* and *Threnody*, Schoenberg *De Profundis*, and the Cooper premiere. That's a program!

Norman: Wow!

Joshua: Regardless, I'll look this book up and see what I can find of it.

Norman: You want to take a picture of that?

Joshua: Yeah, that'd be good to have! So, then you just wrote the letter to George, and he sent you the four scores? At that time, was that the Concord Quartet that you had started rehearsing with?

Norman: Well, if he sent it to me then, I would have had the scores before the Concord started. Or maybe mentioning that, you know, that I got this piece. Because, the timeline of the Concord getting started…Andy and I had played together in the summer of 1970, in a quartet program in San Francisco. Mark Sokol and I met over Thanksgiving dinner at Oberlin in 1969. And, because his brother-in-law, in other words Margaret Sokol's, his first wife, was a year older than I at Oberlin, and was a trumpet player and a really great guy and we were friends. And he said, "I want you to meet my brother-in-law, he's the only guy who's as crazy about playing quartets as you." So then we met over Thanksgiving dinner, Mark was in the West Point string quartet, doing his Vietnam duty at West Point in a service band. We just hit it off right away. We had all the same loves and we played some chamber music together and really loved it. So the next summer I went to play with Andy and hit it off incredibly well. So we started talking about getting a quartet. But, you know, Andy was playing first violin. So I was thinking, "I really want a quartet, so I have to figure out which of these is going to work out." So, in the meantime, Mark…it was my senior year, and he wanted to start right away. And I said, "No, I want to graduate with some degree." So we said we'd use that year to get some people together. So we started to think about people who we might play with. And then, we finally gave up and called Robert Mann and said, "Can you send us two maniacs who want to start a quartet?" So he picked out two people who he thought would be really great. We went to Buffalo – Mark was in the creative associates at SUNY Buffalo, the Lukas Foss program that was run. My girlfriend at the time was living in Buffalo, so we decided to spend our

Christmas break in Buffalo for 10 days, doing first movement of 59/3, middle movements of 57/5, and the second movement of Bartok 3. Something like that. And just sort of working on this stuff in real detail and see how it would go. So at the end of that we played for some friends, and they said, "Wow you guys sound amazing this is really great." So, let's just do it. And I said, "You know, I think, this big decision, I think we should think about it." In the meantime I'm thinking, "What about Andy?" They said, "Okay, good, that's probably good. We should think about it." So, this is in January. Mark called me a couple weeks later and said, "What's really holding you up from just saying that this is okay?" And I said, "Well…" and told him about Andy. "How did you feel about the second violinist that Mann sent out to us?" and I said, "Well, honestly, I mean, I didn't have real clear, great communication with him." John [????] was the violist, so. And I don't…he went to high school with me at Interlochen, but was playing violin back then, you know.

Joshua: Ah, a convert!

Norman: [laughs] Right, all these things were happening. So, basically what happened was, it was a little painful. The guy that had come out to do the Buffalo thing got the plug pulled. Mark called Andy and asked if he'd be willing to play second violin. Andy was at CalArts in LA, working under Rafael. He said, "The point is to be in a quartet, not whether I play first or second violin. I just want to be in a great quartet."

Joshua: Sounds like Jennings.

Norman: Right, so we basically had this agreement to play in a quartet. He was in LA, Mark was in Buffalo, I was at Oberlin, John was in New York. So, at some point, there was a big earthquake in LA, that year. Early '71, February or something like that. Big one – knocked him out of bed, broke his glasses. And he said, "I'm out of here." And he and Gale packed all their things in a little VW squareback, you know, old stuff, and basically called him and said "I'm leaving." He drove – he's from the Buffalo area, East Aurora, New York. So he drove back up and then he met Mark. They played some Bartok duos and said, "This is great. This is going to work." So we basically had this kind of stuff happening. So then there was a Lejarin Hiller – you know this name?

Joshua: No, not at all.

Norman: He was one of the early computer music guys. So he wanted to know if we would be willing to record a serialized piece, a quarter tone work, so a 24 note row. 25 minutes long. And we said, "Sure!" [laughs] To get a recording, of anything. So, by the time that – this is what brings us back to the Crumb – by the time that Vox Records that was going to do this, which was originally going to be the Cage Quartet and the Hiller, basically said, "Do you think these guys could do three records of recent music? Program's up to them, they figure it out." So then, we said, let's just look at what's going on now, with all the different kinds of compositional things that are going on. So we…Earl Brown, you know with the Pollock-inspired notation, and Christian Wolff, who wrote instructions in little boxes. Of course the Kirchner with tape, Stefan Wolpe. You know that Vox?

Joshua: Yeah, it really runs the gamut.

Norman: So all these different styles, to see what the quartet's doing. The Crumb was actually the most recent piece in that set. Jacob Druckman Second Quartet from '66, and Feldman, and…

Joshua: There was a Rochberg in there, right?

Norman: No, not in that set. But anyway, so that was the whole thing. And so I had the music to the Crumb, so that was always gonna be in there. Then the question was when we would do it.

Joshua: So you just held onto it and brought it up at the right time?

Norman: Exactly. I have a class in here in 5 minutes, actually…

Bibliography

Archives

George Crumb Papers. Library of Congress Music Division, Washington, D.C.
Gilbert Ross Papers. Bentley Historical Library. University of Michigan, Ann Arbor, MI.
Ross Lee Finney Papers ca. 1960s-1980s. Bentley Historical Library. University of Michigan, Ann Arbor, MI.
Salvatore Martirano Music, Personal Papers, and Sal-Mar Construction, 1927-1999,. The Sousa Archives and Center for American Music. University of Illinois at Urbana-Champaign, Champaign, IL.
Shifrin (Seymour) Papers. Special Collections. Yale University. New Haven, CT.
Stanley Quartet Commission Papers. Bentley Historical Library. University of Michigan, Ann Arbor, MI.

Archival Discography

Bowling Green String Quartet. *George Crumb: Black Angels*. Live Recording from Bowling Green State University, 3 October, 1971, digitized reel-to-reel tape.
Stanley Quartet. *Black Angels (Recording Session)*. Session Produced by Henry Root. Ann Arbor, MI, 10:00 A.M., 23 October, 1970, digitized reel-to-reel tape.
———. "George Crumb: Black Angels (Live Premiere Recording)," track on *University of Michigan 1970 Festival of Contemporary Music, Program One*. Rackham Hall, 8:00 P.M. 23 October, 1970, digitized reel-to-reel tape.

Discography

Brodsky Quartet. *Schubert: Der Tod Und Das Mädchen; Crumb: Black Angels*. Teldec 9031-76260-2, 1993, compact disc.
Chamber Music Ensembles of the Royal Conservatory of Ghent. *Contemporary Chamber Music*. René Gailly Records CD81 118 (Belgium), 1996, compact disc.
Cikada Quartet. *Black Angels*. Cala Records 77001, 1995, compact disc.
Concord String Quartet. *American Music, 1950-1970*. VOXBOX CDX 5143, 1973, 33⅓ rpm.
Gaudeamus String Quartet. *Crumb/Raxach/De Leeuw*. Philips 6500 881, 1974, 33⅓ rpm.
———. "Threnody 1: Night of the Electric Insects," track # B1 on *Music Excerpts from The Exorcist*. Warner Brothers W 2274, 1973, 33⅓ rpm.
Kronos Quartet. *Black Angels*. Elektra 7559-79242-1, 1990, 33⅓ rpm.
———. *Kronos on Stage*. Image Entertainment, 2002, DVD.
Miró Quartet. *Complete Crumb Collection, Volume 7*. Bridge 9139, 2003, compact disc.
New York String Quartet. *George Crumb/Charles Jones, Black Angels for Electric String Quartet/String Quartet No. 6, Sonatina*. CRI SD 283, 1972, 33⅓ rpm.
Stanislas String Quartet. *Contemporary String Quartets*. Ogam 488020-2, 2002, Compact disc.

Interviews

Borroff, Edith. *Three American Composers.* Lanham, MD: University Press of America, 1986.
Crumb, George. Interview by Joshua DeVries, Media, PA, 2016-2019.
Dufallo, Richard. *Trackings: Composers Speak with Richard Duffalo.* New York: Oxford University Press, 1989.
Fischer, Norman. Interview by Joshua DeVries, Houston, TX, 18 February 2017.
Gagne, Cole, and Tracy Caras. *Soundpieces: Interviews with American Composers.* Metuchen, NJ: Scarecrow Press, 1981.
Henahan, Donal. "'One of the Gentle People'." In *The New York Times*. New York, 13 December 1970.
Liebman, Stuart. "Who Is George Crumb and Why Is He Telling All Those Stories?" *Boston Phoenix*, 12 November 1974.
Meyers, Mary Ann. "A Composer Who Doesn't Take Orders from the Musical Establishment." *Pennsylvania Gazette*, October 1968.
Root, Henry. Interview by Joshua DeVries, Ann Arbor, MI, 8 April 2019.
Shuffett, Robert. "Interview: Crumb/Shuffett." In *George Crumb: Profile of a Composer*, edited by Don Gillespie. New York: C. F. Peters Corporation, 1986.
Wilson, Donald. Interview by Joshua DeVries, Lambertville, MI, 18 April 2019.

Musical Scores

Crumb, George. "Ancient Voices of Children." New York: Edition Peters, 1970.
———. "Black Angels (Thirteen Images from the Dark Land) (Images I)." New York: Edition Peters, 1970.
———. "Lux Aeterna for Five Masked Musicias." New York: Edition Peters, 1971.
———. "Madrigals, Book 3." New York: Edition Peters, 1969.
———. "Madrigals, Book 4." New York: Edition Peters, 1969.
———. "Night of the Four Moons." New York: Edition Peters, 1969.
———. "Vox Balaenae for Three Masked Players." New York: Edition Peters, 1971.

Performance and Recording Reviews

"Anything You May Read in Program or Liner Notes About George Crumb's *Black Angels*." *Seattle Weekly* (Seattle), January 22 2014.
Barnes, Clive. "The Dance: Premiere of 'Black Angels'." *New York Times* (New York), 2 April 1973.
Bloomfield, Arthur. "Absorbing Music Program at Mills." *The San Francisco Examiner* (San Francisco), 1971/03/08/ 1971.
Borroff, Edith. "U Festival Shows Appreciation for 'New Music' Broadening." *The Ann Arbor News* (Ann Arbor, MI), 1970/10/29/ 1970.
Borwn, Mark. "Mozart Concert by Kronos Quartet Is Enjoyable for All." *Mustang Daily* (San Luis Obispo, CA), 8 February 1983.
Chion, Michael. "'Paris'." *Guide Musical*, March 1975.
Coleman, Tim. "Moderns." *Music and Musicians* (February 1974).
Commanday, Robert P. "Music and Game Plans at Big Mills Festival." *San Francisco Chronicle*, March 9 1971.
Felton, James. "Concert Spotlights Penn Teacher-Composers." *Philadelphia Evening Bulletin*, 9 March 1971.
———. "Judging Music's Meaning." *Philadelphia Bulletin*, 8 April 1971.
Finn, Robert. "Crumb Unveils Eerie Sound Effects." *Cleveland Plain Dealer*, 19 October 1971.

George, Collins. "Electric String Quartet a Lovely Shocker." *Detroit Free Press* (Detroit), October 19 1971.
Gray, Channing. "'Black Angels' Consort at Brown Quartet Will Conjure up Crumb's Work with Slide Violins, Humming Glasses." *Providence Journal* (Providence, RI), 1987/02/27/ 1987, Weekend, D-06.
Griffiths, Paul. "Gaudeamus Quartet." *Musical Times* (January 1971).
Gumberts, William. "Ohio Quartet Gives Music New Twist." *Evansville Press* (Evansville, IN), 3 November 1971.
Henahan, Donal. "A George Crumb Work Bows, and No Tone Is Left Unturned." *New York Times*, 16 November 1971.
Hughes, Allen. "Music: Hampshire Quartet." *New York Times*, 30 May 1985.
Lambert, John W. "Singing Strings." *The Spectator* (Duke University), 7 November 1985.
Lindsay, Noel. "Acoustics Deaden Sound." *The Daily Journal* (Caracas), 16 June 1973.
Littler, William. "Modern Music Workshop a Stimulating Experience." *Toronto Daily Star*, 2 August 1971.
Löhlein, Heinz-Harld. "Auf Der Suche Nach Dem Verlorene System." *Neue Musikzeitung* (Regensburg), April 1984.
Mila, Massimo di. "Da Varsavia." *Nuova Rivista Musicale Italiana*, July/September 1975.
"Musique. Depablo, Vaillant Et Crumb À L'itenéraire." *Le Monde*, 23 December 1974.
Pehrson, Joe. "A Little Here...A Little There." *The Michigan Daily* (Ann Arbor, MI), 1970/10/27/ 1970.
Putnam, Tom. "1971: Music at Home in Historic Chirch." *Buffalo Courier-Express*, 31 July 1971.
Rockwell, John. "Concord Quartet." *New York Times*, 13 June 1973.
Trotter, Herman. "'Angels' Dominates Ub Recital." *Buffalo Evening News*, 11 March 1972.
———. "Shaw Festival: Music of the Now in Setting of Past." *Buffalo Evening News*, 31 July 1971.
Vincent, Richard. "Philarte Quartet Displays Skills in Connoisseur Concert." *Alban Times-Union*, 2 August 1972.
Wagner, Richard. "Die Lehren Der Väter, Die Leere Er Söhne." *Hannoversche Allgemeine Zeitung*, 31 January 1985.
Ward, Mark. "Soul's Surrealistic Voyage." *Charleston Sunday Gazette-Mail*, 12 February 1984.
Webster, Daniel. "Music by Composer at Penn Has Rich Orchestral Palette." *Philadelphia Inquirer*, 28 October 1971.

Secondary Sources

Adamenko, Victoria. "George Crumb's Channels of Mythification." *American Music* 23, no. 3 (Autumn 2005): 324-54.
———. *Neo-Mythologism in Music: From Scriabin and Schoenberg to Schnittke and Crumb.* Interplay: Music in Interdisciplinary Dialogue. Edited by Siglind Bruhn and Magnar Breivik. Pendragron Press, 2007.
"Arnie Lazarus." National Association of Music Merchants Oral History Project. 7 July 2013, accessed 1 June 2023, https://www.namm.org/library/oral-history/arnie-lazarus.
Bass, Richard. "The Case of the Silent G: Pitch Structure and Proportions in the Theme of George Crumb's *Gnomic Variations*." In *George Crumb & the Alchemy of Sound: Essays on His Music*, edited by Steven Bruns, Ofer Ben-Amots and Michael D. Grace. Colorado Springs, Colorado: Colorado College Music Press, 2005.

———. "Octatonic and Whole-Tone Interaction: George Crumb and His Predecessors." *Journal of Music Theory* 38, no. 1 (1994): 155-86.
———. *Pitch Structure in George Crumb's Makrokosmo, Volumes I and Ii.* Ph.D Dissertation, The University of Texas, 1987.
———. "Sets, Scales and Symmetries: The Pitch-Structural Basis of George Crumb's Makrokosmos I and Ii." *Music Theory Spectrum* 13, no. 1 (1991): 1-20.
Benary, Peter. "Skizze — Entwurf — Fragment." In *Die Musik in Geschichte Und Gegenwart: Allgemeine Enzykopädie Der Musik, Sachteil*, edited by L. Finscher, 1508. Kassel: Bärenreiter—Metzler, 1994.
Bernard, Jonathan W. "Rules and Regulation: Lessons from Ligeti's Compositional Sketches." In *György Ligeti: Of Foreign Lands and Strange Sounds*, edited by Louise Duchesneau and Wolfgang Marx. Woodbrige, Suffolk: Boydell Press, 2011.
Bruns, Steven. "*Les Adieux:* Haydn, Mahler, and George Crumb's *Night of the Four Moons*." In *George Crumb & the Alchemy of Sound: Essays on His Music*, edited by Steven Bruns, Ofer Ben-Amots and Michael D. Grace. Colorado Springs, Colorado: Colorado College Music Press, 2005.
Bruns, Steven, and Ofer Ben-Amots, eds. *George Crumb & the Alchemy of Sound: Essays on His Music*. Edited by Michael D. Grace. Colorado Springs, Colorado: Colorado College Music Press, 2005.
Bryan, C. D. B. "Barely Suppressed Screams: Getting a Bead on the Vietnam War Literature." *Harpers* (June 1984): 67-72.
Caputo, Philip, James Fallows, Robert Muller, Dean K. Phillips, Lucian Truscott IV, James Webb, and John P. Wheeler III. "A Symposium." In *The Wounded Generation: America after Vietnam*, edited by A.D. Horne. Englewood Cliffs, New Jersey: Prentice-Hall, 1981.
Castanet, Pierre Albert. "Pour Une Histoire Sociale De La Musique De George Crumb Dans Les Années 1970." [In French]. *Canadian Journal of Music* 29, no. 1 (2009): 17-131. https://search-proquest-com.proxy.lib.umich.edu/docview/212364777/fulltext/8C6F6FEFCC424E05PQ/1?accountid=14667#center.
Chatman, Stephen. "The Element of Sound in *Night of the Four Moons*." In *George Crumb: Profile of a Composer*, edited by Don Gillespie. New York: C. F. Peters Corporation, 1986.
Cobussen, Marcel. "Music and Spirituality: 13 Meditations around George Crumb's Black Angels." [In English]. *The New Centennial Review* 7, no. 1 (Spring 2007): 181-21.
Cope, David. "Biography." In *George Crumb: Profile of a Composer*, edited by Don Gillespie. New York: C. F. Peters Corporation, 1986.
Crumb, George. "Music: Does It Have a Future?". *The Kenyon Review* 2, no. 3 (Summer 1980): 115-22. https://www.jstor.org/stable/4335131.
Cusick, Suzanne G. "Music as Torture / Music as Weapon." *Trans: Revista Transcultural de Música* 10 (2006).
———. "Musicology, Torture, Repair." *Radical Musicology* 3 (2008).
———. "Re-Soundings: Hearing Worlds from the Global War on Terror." Sawyer Seminar, Harvard University, November 2013.
———. "“You Are in a Place That Is out of the World…”: Music in the Detention Camps of the “Global War on Terror”." *Journal of the Society for American Music* 2:1 (2008): 1-26.
Daughtry, J. Martin. "Thanatosonics: Ontologies of Acoustic Violence." *Social Text* 32: 2 (Summer 2014).

Duchesneau, Louise, and Wolfgang Marx, eds. *György Ligeti: Of Foreign Lands and Strange Sounds*. Woodbrige, Suffolk: Boydell Press, 2011.

Elman, Linda L. "George Crumb and Federico García Lorca: Transposing a Poetic Pastiche into a Musical Mosaic." In *George Crumb & the Alchemy of Sound: Essays on His Music*, edited by Steven Bruns, Ofer Ben-Amots and Michael D. Grace. Colorado Springs, Colorado: Colorado College Music Press, 2005.

Fussell, Paul. *The Great War and Modern Memory.* New York: Oxford University Press, 1975. 1979-2.

———. *Wartime: Understanding and Behavior in the Second World War.* First ed. New York: Oxford University Press, 1989.

Gillespie, Don, ed. *George Crumb: Profile of a Composer*. New York: C. F. Peters Corporation, 1986.

Hall, Patricia. *Berg's Wozzeck.* Studies in Musical Genesis, Structure, and Interpretation. New York: Oxford University Press, 2011.

———. *A Vew of Berg's Lulu through the Autograph Sketches.* Berkeley: University of California Press, 1996.

Hall, Patricia, and Friedemann Sallis, eds. *A Handbook to Twentieth-Centry Musical Sketches*. New York: Cambridge University Press, 2004.

Hallin, Daniel C. *The "Uncensored War": The Media and Vietnam.* Berkeley: University of California Press, 1986.

Headlam, Dave. "Integrating Analytical Approaches to George Crumb's *Madrigals, Book I*, No. 3." In *George Crumb & the Alchemy of Sound: Essays on His Music*, edited by Steven Bruns, Ofer Ben-Amots and Michael D. Grace. Colorado Springs, Colorado: Colorado College Music Press, 2005.

Hellman, John. *American Myth and the Legacy of Vietnam.* New York: Columbia University Press, 1986.

Herr, Michael. "Vietnam Nights." In *The Wounded Generation: America after Vietnam*, edited by A.D. Horne. Englewood Cliffs, New Jersey: Prentice-Hall, 1981.

Hyde, Martha M. "The Format and Function of Schoenberg's Twelve-Tone Sketches." *Journal of the American Musicological Society* 36, no. 3 (1983): 453-80. https://doi.org/10.2307/831235. http://www.jstor.org/stable/831235.

Johnston, Blair. "Between Romanticism and Modernism and Postmodernism: George Crumb's *Black Angels*." *Music Theory Online* 18, no. 2 (June 2012).

Lake, William E. "Form and Temporal Proportions in George Crumb's *Ancient Voices of Children*." In *George Crumb & the Alchemy of Sound: Essays on His Music*, edited by Steven Bruns, Ofer Ben-Amots and Michael D. Grace. Colorado Springs, Colorado: Colorado College Music Press, 2005.

Lea, Peter. "Functional Transformations and Octatonality in Selected Works by George Crumb." PhD Diss., University of Western Ontario, 2014.

Leydon, Rebecca. "Clean as a Whistle, Timbral Trajectories and the Modern Musical Sublime." [In English]. *Music Theory Online* 18, no. 2 (June 2012). http://mtosmt.org/issues/mto.12.18.2/mto.12.18.2.leydon.html.

Mandelbaum, Michael. "Vietnam: The Television War." *Daedalus* 111, no. 4 (1982): 12.

Marx, Wolfgang. "'Make Room for the Grand Macabre!': The Concept of Death in György Ligeti's Œuvre." In *György Ligeti: Of Foreign Lands and Strange Sounds*, edited by Louise Duchesneau and Wolfgang Marx. Woodbrige, Suffolk: Boydell Press, 2011.

O'Brien, Tim. "We've Adjusted Too Well." In *The Wounded Generation: America after Vietnam*, edited by A.D. Horne. Englewood Cliffs, New Jersey: Prentice-Hall, 1981.

Pearsall, Edward. "Dialectical Relations among Pitch Structures in the Music of George Crumb." In *George Crumb & the Alchemy of Sound: Essays on His Music*, edited by Steven Bruns, Ofer Ben-Amots and Michael D. Grace. Colorado Springs, Colorado: Colorado College Music Press, 2005.

Powers, Thomas. *The War at Home: Vietnam and the American People.* New York: Grossman, 1973.

Schmidt, Tracey. "Debussy, Crumb, and Musical Borrowing in *an Idyll for the Misbegotten*." In *George Crumb & the Alchemy of Sound: Essays on His Music*, edited by Steven Bruns, Ofer Ben-Amots and Michael D. Grace. Colorado Springs, Colorado: Colorado College Music Press, 2005.

Somfai, László. "'"Written between the Desk and the Piano": Dating Béla Bartók's Sketches." In *A Handbook to Twentieth-Century Musical Sketches*, edited by Patricia Hall and Friedemann Sallis, 114-30. New York: Cambridge University Press, 2004.

Steinberg, Russell. "'"Meta-Counterpoint" in George Crumb's Music: Exploring Surface and Dpeths in *Vox Balaenae (Voice of the Whale)*." In *George Crumb & the Alchemy of Sound: Essays on His Music*, edited by Steven Bruns, Ofer Ben-Amots and Michael D. Grace. Colorado Springs, Colorado: Colorado College Music Press, 2005.

Stiller, Andrew. "Where's That Sound Coming From? John Cage, George Crumb, and the World of Timbre." In *George Crumb & the Alchemy of Sound: Essays on His Music*, edited by Steven Bruns, Ofer Ben-Amots and Michael D. Grace. Colorado Springs, Colorado: Colorado College Music Press, 2005.

Sykes, Jim. "Ontologies of Acoustic Endurance: Rethinking Wartime Sound and Listening." *Sound Studies* 4:1 (2018): 35-69. https://doi.org/10.1080/20551940.2018.1461049.

Uehling, Edward. "Truth Telling, Medieval and Modern." *The Cresset* (May 1994).

Wernick, Richard. "George Crumb: Friend and Musical Colleague." In *George Crumb: Profile of a Composer*, edited by Don Gillespie. New York: C. F. Peters Corporation, 1986.

Wilkinson, Christopher. "*Makrokosmos I* and *Ii*: A Case Study of George Crumb's Compositional Process." In *George Crumb: Profile of a Composer*, edited by Don Gillespie. New York: C. F. Peters Corporation, 1986.

Zaroulis, Nancy, and Gerald Sulliva. *Who Spoke Up? American Protest against the War in Vietnam 1963-1975.* New York: Holt, Rhinehart and Winston, 1984.