Nowhere Landscape, for Clarinets, Trombones, Percussion, Violins, and Electronics

and

“The Map and the Territory: Documenting David Dunn’s Sky Drift”

by

D. Edward Davis

Department of Music
Duke University

Date: __________________________

Approved:

___________________________
Scott Lindroth, Supervisor

___________________________
John Supko

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Louise Meintjes

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Matthew Burtner

Dissertation submitted in partial fulfillment of
the requirements for the degree of
Doctor of Philosophy in the Department of Music
in the Graduate School of Duke University

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ABSTRACT

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Abstract

1. nowhere landscape, for clarinets, trombones, percussion, violins, and electronics

   nowhere landscape is an eighty-minute work for nine performers, composed of acoustic and electronic sounds. Its fifteen movements invoke a variety of listening strategies, using slow change, stasis, layering, coincidence, and silence to draw attention to the sonic effects of the environment—inside the concert hall as well as the world outside of it. The work incorporates a unique stage set-up: the audience sits in close proximity to the instruments, facing in one of four different directions, while the musicians play from a number of constantly-shifting locations, including in front of, next to, and behind the audience.

   Much of nowhere landscape’s material is derived from a collection of field recordings made by the composer during a road trip from Springfield, MA to Douglas, WY along US-20, a cross-country route made effectively obsolete by the completion of I-90 in the mid-20th century. In an homage to artist Ed Ruscha’s 1963 book Twentysix Gasoline Stations, the composer made twenty-six recordings at gas stations along US-20. Many of the movements of nowhere landscape examine the musical potential of these captured soundscapes: familiar and anonymous, yet filled with poignancy and poetic possibility.

2. “The Map and the Territory: Documenting David Dunn’s Sky Drift”

   In 1977, David Dunn recruited twenty-six musicians to play his work Sky Drift in the Anza-Borrego Desert in Southern California. This outdoor performance was documented with photos and recorded with four stationary microphones to tape. A year later, Dunn presented the work in New York City as a “performance/documentation,” playing back the audio recording and projecting slides. In this paper I examine the consequences of this kind of act: what does it mean for a recording of an outdoor work to be shared at an indoor
concert event? Can such a complex and interactive experience be successfully flattened into some kind of re-playable documentation? What can a recording capture and what must it exclude?

This paper engages with these questions as they relate to David Dunn’s *Sky Drift* and to similar works by Karlheinz Stockhausen and John Luther Adams. These case-studies demonstrate different solutions to the difficulty of documenting outdoor performances. Because this music is often heard from a variety of equally-valid perspectives—and because any single microphone only captures sound from one of these perspectives—the physical set-up of these kind of pieces complicate what it means to even “hear the music” at all. To this end, I discuss issues around the “work itself” and “aura” as well as “transparency” and “liveness” in recorded sound, bringing in thoughts and ideas from Walter Benjamin, Howard Becker, Joshua Glasgow, and others. In addition, the artist Robert Irwin and the composer Barry Truax have written about the conceptual distinctions between “the work” and “not-the-work”; these distinctions are complicated by documentation and recording. Without the context, the being-there, the music is stripped of much of its ability to communicate meaning.
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Acknowledgments

This document is the outcome of thousands of conversations and interactions, hundreds of questions large and small, dozens of shared beers and burritos—discussions that stretched across early mornings, late nights, and long afternoons. It represents one side of a continuing exchange, a running dialogue with the many people who have shared their ideas and themselves with me. I dedicate this work:

to my committee: Scott Lindroth, for always pushing me to better explain myself and to better understand myself; Louise Meintjes, for listening—in every sense of the word—and for leading by example; John Supko, for constant support and endless words of wisdom, both on- and off- campus; Matthew Burtner, for reminding me about adventure, that you have to do something;

to those who lent their ideas: David Font, for an enthusiasm as quiet as it is intense; Will Robin and Kerry O’Brien, for inspiring me and engaging with me and always making me think; Joella Bitter and Darren Mueller, for never letting me forget that music is made of sound; Lisa McCarty, for trusting in me and for believing in my work;

to my former teachers: Antoine Beuger, David Grubbs, Michael Pisaro, and Amnon Wolman, for helping me to hear the world with new ears;

to my cohort: Sarah Bereza, Kirsten Santos Rutschman, and Paul Sommerfeld, for always pulling me up and keeping me pointed in the right direction;

to my Durham friends: Erin Biggerstaff, Mary Caton Lingold & Eric Olsten, Amy McDonald, Spencer Orey, Kelley Tatro, Phil Torres & Whitney Trettien, for letting me talk about music sometimes but mostly for reminding me that a whole world exists outside of music;
to my non-Durham friends: Seth Fischer, Madeleine Gallagher, Megan Ihnen, Garrett Johnson, Andy Lee, Beth McDonald, Elizabeth McLagan, for lending their ears and hearts to my creative projects, including this one;

to the composers and soundmakers whose work and friendship have given me direction: Bill Baird, Randy Gibson, Steve Gisby, John Hastings, Eric Honour, Chris Kallmyer, CR Kasprzyck, Otto Muller, Philip von Zweck, Jennifer Walshe, Lee Weisert, and Eric Wubbels, for making my own creative ideas so much stronger and for showing me—by example—the paths to follow;

to the composers at Duke: David Kirkland Garner, Tim Hambourger, Dan Ruccia, Jamie Keesecker (for anxiously pushing that crosswalk button with me), Kenneth Stewart, Bryan Christian, Vladimir Smirnov, Ben Daniels, Scott Lee, and Sid Richardson, for inspiring me with music and words, and for posing thoughtful questions that led me to ask still more questions;

to members of the Duke community inside and outside Biddle: Cameron Britt, Aaron Greenwald and Eric Oberstein of Duke Performances, Rick Nelson, Christy Reuss, and Laura Williams, for working on my behalf to make this document possible;

to the residency programs that supported this project: Elizabeth Stehling and the Kimmel Harding Nelson Center for the Arts, and Ruthie Salvatore and the Ucross Foundation, for offering me the space—mental and physical—to work through these ideas;

to the musicians who contributed to nowhere landscape: Lauren Cauley, Jen Guzman, Casey McLellan, Nick Meryhew, and Stephanie Richards, for sharing the creativity and expertise that allowed me to convert ideas into sounds;

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to my family: Wendy, Joe, Katie, Christine, and Rob, for defining and redefining “support,”
for instilling in me (and then nurturing) my life-long obsessions with art and music, and for
providing the unending love that I needed to bring this document into the world;

to my deepest friend and closest collaborator Erik Carlson, for always reminding me—
every time I forgot, sometimes nearly every day—that not all music sounds bad, and for
somehow managing to embed an unimpeachable generosity of spirit into the tone of a
vibrating string; #ftg;

and finally to Rosemary, for knowing when to listen for a metaphor and when to just listen,
for a true kindness and a guiding strength unmatched in this world, for challenging me and
for understanding me, for every landscape explored together and every landscape yet to be
explored, for reminding me in each moment how truly lucky I am to be alive;
nowhere landscape

for clarinets, trombones, percussion, violins, and electronics
**duration**

around eighty minutes

**instrumentation**

clarinet in Bb 1 + 2
trumpet 1 + 2
percussion 1 + 2
violin 1 + 2
electronics

**overview**

nowhere landscape is a large work for nine performers, composed of acoustic and electronic sounds. It incorporates a unique stage set-up: the audience sits in close proximity to the instruments, facing in one of four different directions, while the musicians play from a number of shifting locations, including in front of, next to, and behind the audience.

**structure**

nowhere landscape is made up of 15 movements. The spacing of this chart indicates which movements are performed continuously without a break (attacca) and which movements are separated by pauses.

<table>
<thead>
<tr>
<th></th>
<th>Title</th>
<th>Instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>being inside this moment</td>
<td>clarinets</td>
</tr>
<tr>
<td>II.</td>
<td>construction in metal</td>
<td>clarinets trombones</td>
</tr>
<tr>
<td>III.</td>
<td>essentially rational</td>
<td>clarinets trombones percussion violins</td>
</tr>
<tr>
<td>IV.</td>
<td>stoppages</td>
<td>clarinets</td>
</tr>
<tr>
<td>V.</td>
<td>cloud reservoir (rising)</td>
<td>trombones</td>
</tr>
<tr>
<td>VI.</td>
<td>leaning triangle</td>
<td>trombones</td>
</tr>
<tr>
<td>VII.</td>
<td>for 7, 8 or 9 people</td>
<td>clarinets trombones</td>
</tr>
<tr>
<td>VIII.</td>
<td>attended/suspended</td>
<td>clarinets trombones</td>
</tr>
<tr>
<td>IX.</td>
<td>twentysix gasoline stations</td>
<td>clarinets trombones</td>
</tr>
<tr>
<td>X.</td>
<td>a clear day</td>
<td>percussion violins</td>
</tr>
<tr>
<td>XI.</td>
<td>ecstatic diagonal</td>
<td>violins</td>
</tr>
<tr>
<td>XII.</td>
<td>cuts and equivalents</td>
<td>clarinets trombones</td>
</tr>
<tr>
<td>XIII.</td>
<td>still light</td>
<td>clarinets trombones</td>
</tr>
<tr>
<td>XIV.</td>
<td>ruins in reverse</td>
<td>clarinets violins</td>
</tr>
<tr>
<td>XV.</td>
<td>untitled (definite space)</td>
<td>percussion</td>
</tr>
</tbody>
</table>
indications

Each movement incorporates a different subset of performers. When you do not play in a particular movement, your role shifts from a performer to a listener. Maintain an internal stillness and give your full attention to the music in progress. Keeping a calm and focused demeanor for the full duration of the piece is crucial to its success.

The shifting of performers from location to location is indicated in the notes at the start of each movement. Move as slowly, as quietly, and as unobtrusively as possible, especially when you are required to move while other performers are making sound. It will be necessary to rehearse this performer-choreography alongside the music to achieve the proper effect.

Many of the movements are very flexible with respect to time. Timings indicated in seconds are always approximations; count carefully, but never use a timer or stopwatch to ensure accuracy. (The exceptions to this rule are the movements with electronics that are fixed in time: II, IX, X, and XV. In these cases, performers must follow the dotted lines in the parts/scores in order to stay aligned with the electronics.) It should not be necessary to employ a separate conductor, though in certain movements the performers may wish to plan out in advance certain cueing or conducting strategies in order to stay together.

The clarinet parts are transposed throughout.

notation

The notation strategies vary throughout the piece. Each movement has an instruction page that details the specific notations used.

Throughout:

A = all electronics triggers are represented by circled letters. Press the appropriate laptop key at the indicated moment.

A = all sections ("rehearsal letters") are indicated by boxed letters. In some movements, all performers shift from section to section together (e.g., III, IV, IX, and XIV). In other movements, however, performers move from section to section independently or do not change together in clearly audible ways (e.g., II and XIII). Follow the instructions at the start of each movement to understand how to interpret the section letters.

materials

furniture

one large table (for laptop/electronics set-up)
two small tables, preferably identical (for radios and mallets)
one very small table or stand (for log drum)
13 chairs (for performers)
56 chairs (for audience)
at least 27 music stands (perhaps more, depending on the performers’ needs)

tb.1

pie plate mute (at S1), stemless harmon mute (at P5), straight mute (at C2->C6)
[it may be easier to borrow tb.2’s straight mute at C2 rather than moving your own]

tb.2

pie plate mute (at S3), stemless harmon mute (at P1), straight mute (at C2)
materials (continued)

pr.1 + pr.2

instruments:
- two suspended cymbals
- two snare drums with wire snares (mounted on stands with the snares facing towards the ceiling [“upside down”])
- two triangles of different sizes (hung from music stand with two clips each, with the open corner facing down)
- two vibraphones
- two disposable aluminum foil pie plates (preset with a thin layer of rice at the bottom of each one)
- one concert bass drum (mounted flat)
- one log drum (always utilize the lowest possible sound on this instrument)
- one sheet of tracing paper (pre-crumpled into a loose ball)
- one crotales (Db from the low octave, sounds two octaves higher than notated)

implements:
- two plastic containers of short-grain rice (Each container needs a lid and a spout. Fill each container with around four cups of rice.)
- two pairs of wire brushes (always fully open)
- two pairs of soft yarn mallets
- two pairs of medium vibraphone mallets
- one pair of bass drum beaters (pr.1)
- one pair of soft timpani mallets (pr.2)
- one bow (pr.1)

vn.1 + vn.2

one standard mute (each)

electronics

- laptop running custom Max patch (contact eddie@warmsilence.org)
- audio interface with 7 outs and 4 ins
- two stereo- (or four mono-) condenser microphones + cables to connect to interface
- four loudspeakers (mounted on stands) + cables to connect to interface
- two small “boombox” radios with aux inputs + cables/adapters to connect to interface
- subwoofer (positioned offstage) + cables to connect to interface

electronics performer

The electronics performer must follow along with the parts/score, triggering the Max patch by pressing the indicated laptop keys at the indicated times. The patch advances automatically from movement to movement. At attacca transitions, the trigger that ends one movement also begins the next movement. (In these cases, the trigger that starts the movement is labeled “rehearsal only.”) Take cues from the performers as necessary, and give cues where indicated.

subwoofer drone

In addition to the material printed in the parts/score, nowhere landscape has an additional sound component: a low drone plays from a subwoofer positioned offstage. This drone is played as the audience enters, and it continues through the entire first half of the piece, also returning as a brief coda at the very end. Ideally this drone is quickly ignored, perhaps perceived as a part of the hall’s HVAC system, or perhaps not heard at all. In movement VIII, the drone turns off abruptly and the resulting silence is unlike anything heard in the piece before. Place the subwoofer as far away from the performance location as practical. It can be controlled from the Max patch, or from another source if necessary. Experiment to find the best solution for the specific sonic environment of the performance.
set-up

nowhere landscape requires a 37.5’ x 37.5’ performing space, with the audience seated in four groups, facing the center of the space. Set up chairs, tables, percussion, and electronic equipment according to the diagram on the following page. Avoid setting up too close to walls or other barriers; the audience should be able to access the symmetrical seating area from all sides.

The dotted boxes on the diagram indicate the 26 locations that performers play from at various points in the piece. (The stationary electronics performer represents a 27th location.) Each performance location is labeled with a number and a letter: P ("percussion"), E ("edge"), S ("stage"), or C ("chair"). Performers stand while playing at the E, S, and P locations, and sit while playing at the C locations. (The E locations have chairs for performers to sit while tacet, but they should always stand while playing at E locations.)

Each performance location requires one or more music stands. (See the chart on pages viii and ix for information on how to distribute the necessary parts to each of these stands.)

Set up the four loudspeakers at the corners of the performance space, pointing inwards. Place the two radios on the small tables next to the vibraphones. Set up the four microphones in a cluster at the center of the performance space, pointing towards the four loudspeakers. (Use one or more stands to elevate the microphones to a height of around 5-6’.) Finally, place the subwoofer far offstage (see “subwoofer drone” instructions.) Connect these devices according to the following list:

laptop outputs
1 “front left” loudspeaker (located near E1)
2 “front right” loudspeaker (located near E2)
3 “rear right” loudspeaker (located near E3)
4 “rear left” loudspeaker (located near E4)
5 radio 1 aux input (located near S1 and S6)
6 radio 2 aux input (located near S3 and S7)
7 subwoofer

laptop inputs
1 microphone pointing towards loudspeaker near E1
2 microphone pointing towards loudspeaker near E2
3 microphone pointing towards loudspeaker near E3
4 microphone pointing towards loudspeaker near E4

performance

The subwoofer drone begins before the house opens. As the audience enters, the nine performers are silently seated, according to the “initial seating arrangement” diagram on page vii. After the audience is seated, the house lighting changes at a silent cue, and the performers move to their first locations for the start of the piece.

At the end of the piece, the performers gradually leave the stage as they finish their material: trombones leave at the start of movement XIV, clarinets and violins leave at the start of movement XV, and percussionists leave near the end of movement XV, as indicated in the score. As soon as the subwoofer cuts off at the very end of movement XV, the house lighting should return to its original setting, indicating the end of the performance. Performers may return to the stage to receive applause. Alternatively, they may remain offstage, and the audience may be asked to refrain from applause and to leave the performance space quietly.
The total stage area (outer dark line) is 37.5' by 37.5'. This plot is reduced 60x. (0.2" = 12")
initial seating arrangement

As the house opens, the nine performers sit silently according to this diagram. After the audience is seated, the house lighting changes at a silent cue and the performers move to their first locations. (See the instructions page of movement I for details.)
**page distribution (by performer)**

Each of the 27 performing locations must be preset with the appropriate parts and scores before the piece begins. This chart indicates how the pages are to be distributed.

<table>
<thead>
<tr>
<th>cl.1</th>
<th>cl.2</th>
<th>tb.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.3</td>
<td>E1</td>
<td>I.3</td>
</tr>
<tr>
<td>III.3</td>
<td>P1</td>
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<td>IV.3-4</td>
<td>S5</td>
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<td>VII.3-6</td>
<td>C1</td>
<td>VII.3-6</td>
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<tr>
<td>IX.3-9</td>
<td>C1</td>
<td>IX.3-9</td>
</tr>
<tr>
<td>XIII.3-7</td>
<td>P6</td>
<td>XII.3-7</td>
</tr>
<tr>
<td>XIII.3-5</td>
<td>C7</td>
<td>XIII.3-7</td>
</tr>
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<td>XIV.3</td>
<td>E1</td>
<td>XIV.4</td>
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<table>
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<tr>
<th>tb.2</th>
<th>pr.1</th>
<th>pr.2</th>
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<tbody>
<tr>
<td>II.4</td>
<td>S3</td>
<td>II.5-7</td>
</tr>
<tr>
<td>III.6</td>
<td>P5</td>
<td>III.4</td>
</tr>
<tr>
<td>V.3-6</td>
<td>E2</td>
<td>IV.5-6</td>
</tr>
<tr>
<td>VI.3</td>
<td>E2</td>
<td>VII.3-6</td>
</tr>
<tr>
<td>VII.3-6</td>
<td>C2</td>
<td>IX.3-9</td>
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<td>XII.3-7</td>
<td>P1</td>
<td>XIII.11,12,14</td>
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<td>XIII.11-13</td>
<td>C1</td>
<td>XV.3-7</td>
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<table>
<thead>
<tr>
<th>vn.1</th>
<th>vn.2</th>
<th>elec</th>
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<tbody>
<tr>
<td>III.6</td>
<td>P4</td>
<td>III.3</td>
</tr>
<tr>
<td>VI.3</td>
<td>E3</td>
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<td>VII.3-6</td>
<td>C4</td>
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<td>IX.3-9</td>
<td>C4</td>
<td>IX.3-9</td>
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<td>X.3-4</td>
<td>S1</td>
<td>X.3-4</td>
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<td>XI.3-4</td>
<td>S5</td>
<td>XI.5-6</td>
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<td>XIII.7,8,10</td>
<td>C2</td>
<td>XIII.15,16,18</td>
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<td>XIV.5</td>
<td>C2</td>
<td>XIV.6</td>
</tr>
</tbody>
</table>
### page distribution (by music stand)

Each of the 27 performing locations must be preset with the appropriate parts and scores before the piece begins. This chart indicates how the pages are to be distributed.

| E1 | I.3; VI.3; XIV.3 |
| E2 | V.3-6; VI.3 |
| E3 | I.3; VI.3; XIV.4 |
| E4 | V.3-6; VI.3 |
| P1 | III.3; XII.3-7 |
| P2 | XV.3-7 |
| P3 | XV.3-7 |
| P4 | II.5-7; III.6; XII.3-7 |
| P5 | III.6; XII.3-7 |
| P6 | II.5-7; III.3; XII.3-7 |
| S1 | II.3; X.3-4 |
| S2 | X.3-4 |
| S3 | II.4; X.3-4 |
| S4 | X.3-4 |
| S5 | IV.3-4; XI.3-4 |
| S6 | IV.3-6; XIII.11,12,14 |
| S7 | IV.7-8; XIII.15-17 |
| S8 | IV.3-4; XI.5-6 |
| C1 | VII.3-6; IX.3-9; XIII.11-13 |
| C2 | III.5; VII.3-6; IX.3-9; XIII.7,8,10; XIV.5 |
| C3 | III.5; VII.3-6; IX.3-9; XIII.7-9 |
| C4 | VII.3-6; IX.3-9 |
| C5 | VII.3-6; IX.3-9; XIII.15,16,18; XIV.6 |
| C6 | III.4; VII.3-6; IX.3-9; XIII.3,4,6 |
| C7 | III.4; VII.3-6; IX.3-9; XIII.3-5 |
| C8 | VII.3-6; IX.3-9 |
| elec | I.3; II.5-7; III.7; IV.3-4; V.3-6; VI.3; VII.3-6; VIII.3; IX.3-9; X.3-4; XI.5-6; XIII.19; XIV.7; XV.3-7 |
This diagram illustrates the overall structure of nowhere landscape.

I. being inside this moment

- dyads

II. construction in metal

- pie plate gestures
- cymbal rolls

III. essentially rational

- tremolos
- bowed crotale
- log drum pulses

- white noise from radios + low field recs
- pulses
- tremolos

IV. stoppages

- melodic fragments
- vibratones - accel/decel

V. cloud reservoir (rising)

- stretched field recs
- unison tones
plan (2/4)

VI. leaning triangle
- TTA
- field rec imitations

VII. for 7, 8, or 9 people
- TTA
- field rec imitations

A. aggressive dyads + glisses

B. high and low field recs + radio drones

C. subwoofer drone

VI. attended/suspended
- TTA
- field rec imitations

II. twenty six gasoline stations
- TTA
- field rec imitations

- CCA
- field recs
**plan (3/4)**

<table>
<thead>
<tr>
<th></th>
<th>X. clear day</th>
<th>XI. ecstatic diagonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>cl.1</td>
<td></td>
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<tr>
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<tr>
<td>vn.1</td>
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<tr>
<td>vn.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>elec</td>
<td></td>
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</tbody>
</table>

- **40'**
  - **cl.1**
  - **cl.2**
  - **tb.1**
  - **tb.2**
  - **vn.1**
  - **vn.2**
  - **elec**

- **45'**
  - **snare drums - scrapes/rolls**
  - **sweeps/tremolos**
  - **skittering noises**
  - **fast alternations**
  - **drones**

---

<table>
<thead>
<tr>
<th></th>
<th>XII. cuts and equivalents</th>
<th>XIII. still light</th>
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<tbody>
<tr>
<td>cl.1</td>
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<tr>
<td>elec</td>
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- **50'**
  - **tones + tremolos + melodies**
  - **stretched field recs**

- **55'**
  - **tones + tremolos + melodies**
  - **stretched field recs**
### Plan (4/4)

<table>
<thead>
<tr>
<th>cl.1</th>
<th>cl.2</th>
<th>60'</th>
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<tbody>
<tr>
<td><strong>pulses + improvised melodies</strong></td>
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<tr>
<th>tb.1</th>
<th>tb.2</th>
<th>65'</th>
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<tbody>
<tr>
<td><strong>wavering long tones + improvised melodies</strong></td>
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<tr>
<th>elec</th>
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<tr>
<td><strong>buffer playback</strong></td>
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#### XIV.
- ruins in reverse
- slap tongue gestures

#### XV.
- untitled (definite space)
- bass drum rolls + triangle rolls
- pizz gestures
- chopped up field recs + pitched events
- high field recs + low field recs + drones
I.

*being inside this moment*

clarinets
**duration**

around two minutes and thirty seconds

**attacca**

I moves directly into II. At the double bar, the electronics performer gives a cue to signal the change between movements.

**electronics**

Trigger the letters as indicated in the score, following cues from the clarinets. The final trigger begins the next movement.

**instructions**

Each measure is 6 to 10 seconds.

Carefully coordinate attacks and cutoffs, breathing together.

Use gentle articulations. The notes should emerge from and return to silence.

Use a breathy, warm tone. Some instability in the sound is acceptable.

Always very focused and still.

---

**stage locations**

before =  (at a silent cue) cls stand at E1/E3, tbs to S1/S3, and prs to P4/P6

during =  none

after =  cls sit at E1/E3
Each measure is 6 to 10 seconds.
Breathe together.

ATTACCA
II.

construction in metal

trombones + percussion
duration

around five minutes and eighteen seconds

attacca

I moves directly into II. Percussionists begin immediately at the cue from the electronics performer. Pause after this movement to reset for III.

electronics

Trigger the double bar at the end of the movement, following the percussionists.

instructions

There is no full score, only parts. The percussionists and electronics performer read from a partial score, while the trombones each read from an individual part.

The two radios play isolated events throughout this movement. (These 15" events, separated by silence, are triggered automatically by the laptop patch.) The trombones are closely linked to the activity of the radio; each trombone part is divided into eight unequal and unaligned sections (labeled $A1-H1$ and $A2-H2$), and each entrance of sound from a radio indicates the beginning of one of these sections, with tb.1's radio cueing $A1-H1$ and tb.2's radio cueing $A2-H2$. (Each trombone follows only his/her own radio.) The trombones slowly rotate the radios at the start of certain indicated sections, taking the full 15" duration of the radio event for each rotation. They then play the independent written gestures at any point after the radio event ends (but before the next one begins).

The trombones face away from each other, with their backs to the center of the performance space. Arrows in the trombone parts indicate the starting and ending direction of the radios in each section as well as the direction of the trombone bell (left or right) for each of the written gestures. All directions are given from each trombone's individual perspective.

The trombones play with pie plate mutes. Create an unpredictable buzzy or distorted sound, using timbre and dynamic to maximize the effects of the mute. You may occasionally add some vocalization-while-playing (as desired) to create noisy multiphonic effects. The general dynamic of the trombone gestures may be quite loud. Play always with great energy, phrasing each gesture as a continuous idea (in one breath).

The percussionists play together in tempo, following the notated radio events to stay aligned with the electronics. Vertical dotted lines indicate moments of coordination. Always roll steadily and evenly with wire brushes (fully open). Each gesture is marked with a circular symbol that indicates the placement/movement of the brushes:

- An arrow indicates a continuous movement from one edge of the cymbal to the other.
- Play in a straight line with the brushes always together. Move steadily over the complete duration of each gesture, navigating around the bell as necessary.
- Dots indicate a stationary and continuous roll, with brushes located at the marked positions near the edge or bell.

stage locations

before = none
during = cls sit at E1/E3
after = cls to P1/C6, tbs to C2/P5, prs to C3/C7, and vns to P4/P6
Slowly rotate the radio from the starting-arrow direction to the ending-arrow direction over the full duration of each radio event, around 15 seconds. At any time after the radio event ends (but before the next one begins), play the written gesture once. Point your bell in the indicated direction.

After the movement ends, reset the radios to face “forwards” (away from your body and towards the edge of the performance space).
Slowly rotate the radio from the starting-arrow direction to the ending-arrow direction over the full duration of each radio event, around 15 seconds. At any time after the radio event ends (but before the next one begins), play the written gesture once. Point your bell in the indicated direction.

After the movement ends, reset the radios to face “forwards” (away from your body and towards the edge of the performance space).
\[ q = \pi \sum \alpha \sigma \beta \gamma \delta \epsilon \]
pr.1 + pr.2 + elec II.6

(pr.1 + pr.2 + elec II.6)

(pr.1 + pr.2 + elec II.6)

(pr.1 + pr.2 + elec II.6)

(pr.1 + pr.2 + elec II.6)

(quiet sine tones fade in)
III.

*essentially rational*

clarinets + trombones + percussion + violins
duration
around four minutes

electronics
Trigger the letters as indicated in your part, following cues from the performers. Since the laptop records the ensemble with the microphones at the center of the stage and then plays back the recording in overlapping layers, it is essential to precisely anticipate each of the cues given by the performers at the start of each section, in order to “catch” each change in the texture. Give a cue to cut off the entire ensemble after 60” of O. (Watch the counter in the patch to estimate this length. It is not important to give the cue at a precise moment.)

instructions
There is no full score, only parts. This movement features duos, and each duo shares a part. The movement is divided into 15 sections, labeled A-O, ranging in length from 10 seconds to 60 seconds. Each section begins with a cue given by one of the performers, indicated next to the section letter.

Performers are instructed either to “play” or “rest” during each of the 15 sections. Dark gray bars in the part (see below) indicate a section where you and your duo partner play. Horizontal boxes in the part (see below) indicate that a cue to start a section is given by either you or your duo partner. The 15 sections are laid out in two columns.

During a section where you play, repeat the written material as needed. When playing for multiple consecutive sections, continue without pause across the cues. End abruptly at a cue that begins a rest, interrupting your sound with precision regardless of where you are in your material.

stage locations
before = cls to P1/C6, tbs to C2/P5, prs to C3/C7, and vns to P4/P6
during = none
after = cls to S5/S8, tbs sit at E2/E4, prs to S6/S7, and vns sit at E1/E3
Repeat these figures during the sections marked PLAY, following the durations in the chart below. Coordinate with your duo partner, interlacing and crossfading your parts to create an overlapping dialogue. Cut-off abruptly at the cues marked REST. Horizontal boxes indicate cues given by one member of this duo.

very even, foggy

3-7" 4-6"

3-7"

very fast and even

4-6"


gives cue to start section

\[
\begin{array}{cccc}
A & \text{vn.1} & 15" & \text{REST} \\
B & \text{pr.1} & 15" & \text{REST} \\
C & \text{tb.1} & 15" & \text{REST} \\
D & \text{cl.1} & 15" & \text{PLAY} \\
E & \text{tb.2} & 10" & \text{REST} \\
F & \text{pr.2} & 10" & \text{REST} \\
G & \text{cl.1} & 10" & \text{PLAY} \\
H & \text{pr.1} & 10" & \text{REST} \\
I & \text{cl.1} & 10" & \text{PLAY} \\
J & \text{tb.1} & 10" & \text{PLAY} \\
K & \text{vn.1} & 15" & \text{REST} \\
L & \text{cl.1} & 15" & \text{PLAY} \\
M & \text{pr.2} & 15" & \text{PLAY} \\
N & \text{pr.1} & 15" & \text{PLAY} \\
O & \text{tb.2} & 60" & \text{PLAY} \\
elec & \text{(cues the end)} \\
\end{array}
\]
Repeat these figures during the sections marked PLAY, following the durations in the chart below. Coordinate with your duo partner, interlacing and crossfading your parts to create an overlapping dialogue. Cut-off abruptly at the cues marked REST. Horizontal boxes indicate cues given by one member of this duo.

pure, ghostly

(crotale (bow))

(gives cue to start section)

A vn.1 15" REST

B pr.1 15" PLAY

C tb.1 15" REST

D cl.1 15" REST

E tb.2 10" PLAY

F pr.2 10" REST

G cl.1 10" REST

H pr.1 10" PLAY

I cl.1 10" PLAY

J tb.1 10" REST

K vn.1 15" PLAY

L cl.1 15" PLAY

M pr.2 15" REST

N pr.1 15" PLAY

O tb.2 60" PLAY

elec (cues the end)
Repeat these figures independently during the sections marked PLAY, following the durations in the chart below. Make the tempo changes as even and gradual as possible. (tb.1: Insert quarter-note rests for breathing as necessary, always respecting the shifting pulse.) Cut-off abruptly at the cues marked REST. Horizontal boxes indicate cues given by one member of this duo.
Repeat these figures independently during the sections marked PLAY, following the durations in the chart below. Make the tempo changes as even and gradual as possible. (tb.2: Insert quarter-note rests for breathing as necessary, always respecting the shifting pulse.) Cut-off abruptly at the cues marked REST. Horizontal boxes indicate cues given by one member of this duo.

Repeat these figures independently during the sections marked PLAY, following the durations in the chart below. Make the tempo changes as even and gradual as possible. (tb.2: Insert quarter-note rests for breathing as necessary, always respecting the shifting pulse.) Cut-off abruptly at the cues marked REST. Horizontal boxes indicate cues given by one member of this duo.

III.6

gives cue to start section

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<td>A</td>
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<td>pr.1</td>
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<td>C</td>
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<td>D</td>
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<td>M</td>
<td>pr.2</td>
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<td>N</td>
<td>pr.1</td>
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<tr>
<td>O</td>
<td>tb.2</td>
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elec (cues the end)
Each system is one minute.

(Trigger just before each duo begins)

(give cue to entire ensemble)

(Trigger just before each duo begins)

(check patch to see that 60" have elapsed)

(check patch to see that 60" have elapsed)
IV. stoppages

clarinets + percussion
**duration**

around five minutes

**attacca**

IV moves directly into V. At the double bar, cl.1 gives a cue to signal the change between movements.

**electronics**

Trigger the letters as indicated in your part. Give a cue to the percussionists to start the movement so that they enter at the same time as the electronics. The final trigger, cued by cl.1, begins the next movement.

**instructions**

There is no full score, only parts. The clarinets and electronics read from a partial score, while the percussionists each read from an individual part.

The clarinets play together, following a the indicated meter and tempo, while the percussionists repeat their patterns at independent tempos, always gradually accelerating or decelerating as indicated. The movement is unevenly divided into eight sections, labeled A-H. The percussionists listen to the clarinets for cues to advance to the next section/system. Each clarinet entrance marks the start of a new section (except H which has two clarinet gestures). Percussionists stop abruptly (but l.v.) at the end of the second clarinet gesture in H.

**percussion notes**

The vibraphones’ sustain pedals remain depressed for the entire movement.

Always accelerate or decelerate continuously for the duration of the entire section (through all the repeats). At each of the section changes, continue from your current position in the pattern at the same tempo; simply “reverse the direction” of the acceleration/deceleration.

Play very quietly throughout. Small irregular variations in the dynamics, resulting perhaps from the different mallets or shifting tempo, are to be expected.

Use a four-mallet technique, with a soft yarn mallet and wire brush in each hand:

- Standard noteheads are played with soft yarn mallets.
- Triangular noteheads are played with wire brushes (fully open).

**stage locations**

before = cls to S5/S8, tbs sit at E2/E4, prs to S6/S7, and vns sit at E1/E3

during = tbs stand at E2/E4

after = cls to C1/C5 and prs to C3/C7
vibraphone
(two soft yarn mallets
+ two wire brushes)
Listen to the clarinets for cues to advance to the next system.
Continue in the next system from your current position in the pattern.

A
16"

B
50"

C
38"

D
43"

Take cue from elec

Gradually accel (through all repeats)

Gradually decel

Gradually accel

Gradually decel
This last system has two clarinet gestures. Stop playing (but 1.v.)
at the end of the second gesture, wherever you are in the pattern.
Lift the sustain pedal only after the sound has faded completely.
Listen to the clarinets for cues to advance to the next system.
Continue in the next system from your current position in the pattern.

Take cue from elec

Gradually decel (through all repeats)

Standard notehead = soft yarn mallet
Triangular notehead = wire brush

Gradually accel

Gradually decel

Gradually accel
This last system has two clarinet gestures. Stop playing (but i.v.) at the end of the second gesture, wherever you are in the pattern. Lift the sustain pedal only after the sound has faded completely.

ATTACCA
V.

*cloud reservoir (rising)*

trombones
duration
around eight minutes

attacca
IV moves directly into V. Begin immediately at the cl.1 cue that ends IV.
V moves directly into VI. At the double bar, the electronics performer gives a cue to signal
the change between movements.

electronics
Trigger the letters as indicated in the score, following cues from the trombones. At the
final trigger (O), around one minute after the last trombone gesture, give a cue to the
violins so that they enter precisely as the electronics change.

instructions
Each system represents a single phrase followed by a pause.
Each system lasts between 20 and 40 seconds.

Play each phrase in one breath. The durations are free, but generally long.
Always very soft and delicate. Inward. Never grand. Blend with the electronics.

Dotted slurs indicate a “paired phrase”: as indicated, one performer begins with a note,
and then the other performer contributes a note. These two notes may overlap and may be of
any duration (still in one breath).

tuning
Always match your pitch to the electronics.
The deviations above and below equal temperament are indicated in cents in the score.

cents from
equal temp: 0 -12 +2 +11 +4 -8 +6 +16 +8 -4 +10 +20 +12 0

stage locations
before = tbs stand at E2/E4
during = cls to C1/C5 and prs to C3/C7, vns stand at E1/E3
after = none
Each system is between 20 and 40 seconds. Always very soft and delicate. Never grand. Durations are free, but generally long.

"paired phrase": these two notes may overlap and may be of any duration (one breath)
score V.6

tb.1

+20 +12 +20

tb.2

elec

M

M

tb.1

+20 +12 +20

tb.2

elec

N

N

tb.1

give cue to vn.1 + vn.2

give cue to vn.1 + vn.2

elec

(fading tones continue into the next movement)

(fading tones continue into the next movement)

ATTACCA
VI.
leaning triangle
trombones + violins
duration

around three minutes

attacca

V moves directly into VI. Begin immediately at the electronics cue that ends V. (Some electronic sound from V continues into VI.) Pause after this movement to reset for VII.

electronics

Trigger the letters as indicated in the score, following cues from the violins and trombones.

instructions

The time-chart on the following pages indicates the pitch-level and duration of the gestures described below. Each box represents 3”; each system represents 45”. Move together as an ensemble from box to box, performing the indicated activity. Use eye-contact to remain aligned. (It may be necessary to work out some cueing decisions in rehearsal.)

Always blend; neither the instruments or electronics should dominate.

trombone

Play only on (or between) the pitches A1 and Bb1.

When indicated, play the given pitch continuously and aggressively. Use a dark growling tone that is always threatening to become loud (but never is).

Take quick breaths as necessary, adding a sharp accent at each re-attack. Do not attempt to coordinate breathing between the trombones; the attacks should naturally stagger.

violin

Play only on (or between) the pitches Bb7 and B7.

When indicated, play the given pitch continuously and aggressively. Use a piercing unstable tone that is always threatening to become loud (but never is).

Change bows as necessary, adding a sharp accent at each change. Do not attempt to coordinate bow changes between the violins; the attacks should naturally stagger.

stage locations

before = vns stand at E1/E3

during = none

after = tbs to C2/C6 and vns to C4/C8
Each box is 3 seconds. Play aggressively, accenting every re-attack.

- **tb.1**
- **tb.2**
- **vn.1**
- **vn.2**
- **elec**

**Notes:**
- *Take cue from elec*
- (high and low field recs)
- (low field recs end)
- (pitched sound from radios)
- (low field recs fade in, high field recs fade out)
- (high and low field recs)
- (rehearsal only)
- (pitched sound ends)
- (high field recs begin)
- (pitched sound ends)
- (high field recs begin)
VII.

for 7, 8 or 9 people

clarinets + trombones + percussion + violins
duration
around four minutes and thirty-three seconds

attacca
VII moves directly into VIII. At the double bar, the end of cl.1’s final gesture marks the start of next movement. There is no audible change in the electronics.

electronics
Trigger the letters as indicated in the score, following cues from the performers. Coordinate carefully to fill the silences, taking care never to overlap the electronic sound with the instruments. The final trigger (G) begins a timer for the following movement, but has no audible result.

instructions
Each section/system represents a series of coordinated events between two, three, or four performers.

Time is horizontally proportional in the score, and is loosely indicated in seconds above each gesture. Vertical dotted lines indicate moments of coordination between performers.

percussion notes
When playing the “rice” gesture in rehearsal letter K, balance the pie plate in your lap.

stage locations
before = tbs to C2/C6 and vns to C4/C8
during = none
after = none
score VII.6

M 15"

c1.1

c1.2

elec G

(timer begins — no sound)

ATTACCA
VIII.

attended/suspended
duration

exactly two minutes

attacca

VII moves directly into VIII, which begins at the end of cl.1’s final gesture in VII. VIII moves directly into IX. Two minutes after VIII begins, the electronics for IX begin automatically, signalling the start of the next movement.

electronics

No action is necessary. This movement continues automatically into the next movement, which begins without a cue or trigger.

instructions

Tacet. Be still. Listen.

stage locations

before = none
during = none
after = none
The next movement begins without a cue or trigger.
IX.

twentysix gasoline stations

clarinets + trombones + percussion + violins
duration

exactly eight minutes and fifty-eight seconds

attacca

VIII moves directly into IX. Two minutes after VIII begins, the electronics for IX begin automatically. After the field recordings begin, cl.1 should be prepared to enter after around four seconds of rest. Pause after this movement to reset for X.

electronics

No action is necessary. This movement begins automatically following the previous movement, and ends on its own after section Z.

instructions

Each section/system represents the playback of a field recording lasting 13", 20", or 26". Time is horizontally proportional in the score, and is loosely indicated (in elapsed seconds) by the bracket below each system. Audible events in each recording (trucks, brakes, birds, etc) are indicated, along with their approximate timings. Vertical dotted lines indicate moments of coordination between performers or between a performer and an event on the field recording.

Listen carefully to the field recordings and merge your sound with them as much as possible. The field recordings are not a background to the activities of the performers.

percussion notes

When playing the “rice” gestures in F and P, balance the pie plate in your lap.

stage locations

before = none
during = none
after = cls to C1/C8, tb.2 to C1, prs to S2/S4, and vns to S1/S3
The bracket below each system indicates elapsed seconds. Merge your sound with the field recordings.

score IX.3

A 26"

cl.1

cl.2

(rehearsal only)

0:08 honk
0:16 door
0:19 engine

B 13"

0:11 crow

sharon springs, ny

C 20"

0:07 trailer
0:10 brake
0:15 squeak

cazenovia, ny

D 26"

0:05 ignition
0:18 signal
0:21 signal
0:24 signal

geneva, ny
E 20"
log drum
(fingers)
pr.2

\[ \text{pp} \]
\[ \text{p} \]
\[ 0:05 \] truck
\[ 0:12 \] truck
\[ 0:19 \] child

alden, ny

F 26"
tb.2

\[ \text{p} \]
pie plate
(rice grains)
pr.1

\[ 0:01 \] door
\[ 0:06 \] door
\[ 0:08 \] ignition
\[ 0:22 \] truck

brocton, ny

G 13"


mentor, oh

H 20"
cl.2

\[ \text{pp} \]
\[ 0:02 \] tires
\[ 0:14 \] flagpole

wakeman, oh
\textbf{score IX.8}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{score IX.8.png}
\end{figure}

\begin{enumerate}
\item \textbf{U} 20"
\item \textbf{tb. 2}
\item \textbf{vn. 2}
\item \textbf{randolph, ne}
\item \textbf{V} 13"
\item \textbf{0:10 brake}
\item \textbf{O'neill, ne}
\item \textbf{W} 26"
\item \textbf{cl. 1}
\item \textbf{0:08 car}
\item \textbf{0:21 door}
\item \textbf{valentine, ne}
\item \textbf{X} 20"
\item \textbf{cl. 1}
\item \textbf{pppp barely audible}
\item \textbf{cl. 2}
\item \textbf{ppp}
\item \textbf{0:14 pump}
\item \textbf{gordon, ne}
\end{enumerate}
x.
a clear day

percussion + violins
duration

around four minutes

attacca

X moves directly into IX. At the double bar, the electronics performer cues the violins.

electronics

Trigger the letters as indicated in the score. This movement continues automatically into the next movement, which begins without a trigger. At the double bar, give a cue to the violins to begin the next movement. (See the patch for a visual “countdown” for this cue.)

instructions

The time-chart on the following pages indicates three kinds of gestures, described below. Each box represents 2”; each system represents 30°. Move together as an ensemble from box to box, performing the indicated activity. Use eye-contact to remain aligned. (It may be necessary to work out some cueing decisions in rehearsal.)

Vary the dynamics, imitating the unpredictable swells and skittering energy of the electronics. Always blend; neither the instruments or electronics should dominate.

Sometime between 2’54” and 3’08”, violins slowly rotate the radios nearest to them by 180°.

percussion

With brushes “across” (perpendicular to) the snares, sweep up and down the snares, creating arrhythmic washes of uneven noise. Vary the speed of the brushes up and down the snares.

Create frantic and uneven rolls along the edges of the drumhead, varying the speed, dynamic, and contact location freely and irregularly.

violin

With the left hand in either of the following positions, sweep the bow “vertically” along the length of the III and IV strings between the bridge and fingerboard, creating arrhythmic washes of uneven noise. Vary the bow speed.

With the left hand muting all the strings (half-pressure) near the nut, create frantic and uneven tremolos, moving the bow in a generally circular motion and changing the bow angle irregularly. This technique will result in a near constant variation of both the strings and contact point. This gesture has no clear pitch.

stage locations

before = cls to C3/C8, tb.2 to C1, prs to S2/S4, and vns to S1/S3
during = vns to S5/S8
after = prs to C4/C7
Each box is 2 seconds.

(Clicking noises begin)

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slowly rotate radio 1 so that it faces towards you
slowly rotate radio 2 so that it faces towards you

*elec: give cue to vn.1 + vn.2*

move quickly to S8
move quickly to S5

(skittering noises gradually align and move in unison)

ATTACCA
XI.

ecstatic diagonal

violins
duration

around seven minutes and twenty seconds

attacca

X moves directly into XI. Violins begin immediately at the electronics cue that ends X. XI moves directly into XII. At the double bar, vn.1 gives a cue to signal the change between movements.

electronics

Trigger the double bar at the end of the movement, following the cue from vn.1.

instructions

There is no full score, only parts.

The violins play continuously throughout the movement, without a pause. Each performer maintains the written tempo, though it is not necessary for the violins to lock together into a perfect shared quarter-note pulse at all times.

Repeat each gesture the indicated number of times. (The number of repetitions is always divisible by 4; some performers may find it easier to “count in 4/4”.) Repeat the last measure of each system until you hear the harmony change in the electronics, then move immediately to the next system.

Play always molto sul ponticello, with a shimmery, grainy, and unstable tone. Use long slow bows, incorporating many repetitions of each pattern into each bow; change as necessary. The dynamics should gradually rise and fall in very slow crescendos and decrescendos between pianissimo and forte, with each swell lasting 20 to 40 seconds.

During the final measure, vn.1 counts every repeat and then gives a cue to the others to end the movement and advance to the next movement.

tuning

Always match your pitch to the electronics, which deviate slightly from equal temperament. The deviations above and below equal temperament are indicated in cents in the parts.

cents from equal temp: 0 +12 -2 -11 -4 +8 -6 -16 -8 +4 -10 -20 -12 0

stage locations

before = vn. to S5/S8
during = immediately: prs to C4/C7, then five minutes later: cls to P4/P6, tbs to P1/P5
after = vn. to C2/C5
Repeat each gesture the indicated number of times. Repeat the last measure of each system until you hear the harmony change in the electronics, then move immediately to the next system. Create slow swells from pp to f and back (20-40" per swell).
Repeat each gesture the indicated number of times. Repeat the last measure of each system until you hear the harmony change in the electronics, then move immediately to the next system. Create slow swells from \textit{pp} to \textit{f} and back (20-40\textdegree per swell).
vn.2 + elec  

\begin{verbatim}
\begin{tikzpicture}
\draw (0,0) -- (10,0) -- (10,-2) -- (0,-2) -- cycle;
\draw (0,0) -- (10,0);
\draw (0,-2) -- (10,-2);
\draw (5,0) -- (5,-2);
\draw (0,0) -- (0,-1);
\draw (10,0) -- (10,-1);
\draw (0,-2) -- (0,-3);
\draw (10,-2) -- (10,-3);
\draw (5,-2) -- (5,-3);
\draw (0,0) -- (5,0);
\draw (0,-1) -- (5,-1);
\draw (0,-2) -- (5,-2);
\draw (0,-3) -- (5,-3);
\fill (0,0) circle (0.05);
\fill (10,0) circle (0.05);
\fill (0,-2) circle (0.05);
\fill (10,-2) circle (0.05);
\fill (5,0) circle (0.05);
\fill (5,-2) circle (0.05);
\end{tikzpicture}
\end{verbatim}

XII.

cuts and equivalents

clarinets + trombones
duration
around five minutes

attacca
XI moves directly into XII. This movement begins immediately at the vn.1 cue that ends XI. Following the moment that the violin drones end and the stretched field recordings begin, all performers should be prepared to enter after 11 beats of rest. Pause after this movement to reset for XIII.

electronics
Trigger the letters as indicated in the score, following cues from the performers. Coordinate carefully to fill the silences, taking care to never overlap the electronic sound with the instruments. The final trigger (H) begins a sound that ends automatically after fourteen seconds, signalling the end of the movement.

instructions
All performers read from the score.
Carefully coordinate attacks and cutoffs, always breathing together.
Use gentle articulations. The notes should emerge from and return to the atmospheric electronic sounds in a kind of dialogue.
In general, play always very soft, but let melodic lines emerge from the texture on occasion.
Melodic lines should always be very free with respect to time (molto rubato); obscure any sense of a regular pulse.
Tremolo gestures are to remain consistent and “smooth,” with no rearticulations. The notated rhythmic durations are simply a counting aid and do not indicate audible re-attacks.

stage locations
before = cls to P4/P6, tbs to P1/P5
during = vns to C2/C5
after = cls to C3/C7, tbs to C1/C6, prs to S6/S7, and vns to C2/C5
Always hushed and delicate.
(Let melodic lines emerge from the texture.)

\[ \text{Let melodic lines emerge from the texture.} \]

\[ \text{Cl.1} \]

\[ \text{Cl.2} \]

\[ \text{TB.1} \]

\[ \text{TB.2} \]

\[ \text{Elec} \]

\[ \text{Sempre molto rubato} \]

\[ \text{Listen for end of vn drones} \]
score XII.6

cl.1

cl.2

tb.1

tb.2

elec
XIII.

*still light*

clarinets + trombones + percussion + violins
duration

around twelve minutes

electronics

Trigg the start of the movement, just before the first duo begins to play. There will be no sound from this trigger, though it begins the laptop recording the ensemble with the stereo microphones at the center of the stage. After two minutes, the patch automatically plays back this recording in overlapping layers. The electronics end automatically after a long fade-out, and the performers end shortly afterwards.

instructions

There is no full score, only parts. The first section (A) features duos, and each duo shares a part. In the second section (B), duos dissolve and each performer reads from a unique part.

In A, each duo plays nine or ten “units” of material (labeled A1-A10), carefully coordinating attacks and cut-offs in each unit. Each duo’s playing must not overlap with any other duo’s playing; after one duo stops, at least 3" must elapse before another duo enters. (If two duos end up starting at the same moment, they may both continue without shame.) No duo may play twice in a row; at least one other duo must play in between. (Exception to this rule: the last group to finish may end up playing their final units in a row.) Any duo may begin.

Upon finishing the A material, each duo moves immediately to B, dissolving their partnership and playing independently until the end of the movement.

In B, create material by pairing a gesture from the top chart with the appropriate number of consecutive pitches from the bottom chart. Move in order from 1 to 28, and always begin at a different point on the bottom chart. Play independently, overlapping freely with the gestures of the other instruments. Each gesture is a single phrase with varied durations, sempre legatissimo. The dynamic range is from ppp to f. Leave a pause of 12" or longer between each gesture. If you reach Gesture 28 before the electronics fade, repeat from Gesture 25, selecting new pitches each time. End sometime after the electronics fade out completely, wherever you are in the material.

Balance your sound with the electronics and the other musicians. There will be a natural increase in the overall dynamic as the movement progresses.

After the last note of the movement ends, all performers freeze for twenty seconds before relocating. Clarinets and percussionists move to new positions on the stage, while the trombones quickly and quietly exit the stage.

tuning

In A, violins and trombones use an audible slow vibrato to create unstable pitch interferences. Experiment to find an appropriate interval to deviate above and below the notated pitch. (It may be a quarter tone or even more.) Vary the speed of the vibrato; it may be quite slow.

In B, tune your melodies to standard temperament.

stage locations

before = cls to C3/C7, tbs to C1/C6, prs to S6/S7, and vns to C2/C5
during = none
after = cls stand at E1/E3, tbs EXIT STAGE, and prs to P2/P3
Play these nine units in order. Always coordinate precisely with the other member of your duo.

Your duo’s playing must not overlap with any other duo’s playing; wait at least three seconds after another duo has stopped before entering. Utilize eye contact and awareness to settle on the right moment to begin each unit. (If two duos end up starting at the same moment, they may both continue without shame.)

Never play twice in a row; at least one other duo must play a unit in between. (Exception to this rule: the last group to finish may end up playing their final units in a row.)

Any duo may begin.
Move to B any time after you play A9.
(Duos dissolve; each performer plays independently until the end.)
Moving in order from 1 to 28, create material by pairing a gesture from the top chart with the appropriate number of consecutive pitches from the bottom chart. (Always begin at a different point on the bottom chart.) Play independently, overlapping freely with the gestures of the other instruments. Play each gesture in a single breath, sempre legatissimo. Vary the durations. The dynamic range is from ppp to f.

Leave a pause of 12" or longer between each gesture.

End sometime soon after the electronics fade out completely, wherever you are in the material.

Freeze for 20" before moving for the next section.
Moving in order from 1 to 28, create material by pairing a gesture from the top chart with the appropriate number of consecutive pitches from the bottom chart. (Always begin at a different point on the bottom chart.) Play independently, overlapping freely with the gestures of the other instruments. Play each gesture in a single breath, sempre legatissimo. Vary the durations. The dynamic range is from ppp to f.

 Leave a pause of 12" or longer between each gesture.

1.  
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27.  
28.  

End sometime soon after the electronics fade out completely, wherever you are in the material.

Freeze for 20" then quietly exit the stage.
Play these ten units in order. Always coordinate precisely with the other member of your duo.

Your duo’s playing must not overlap with any other duo’s playing; wait at least three seconds after another duo has stopped before entering. Utilize eye contact and awareness to settle on the right moment to begin each unit. (If two duos end up starting at the same moment, they may both continue without shame.)

Never play twice in a row; at least one other duo must play a unit in between. (Exception to this rule: the last group to finish may end up playing their final units in a row.)

Any duo may begin.
Move to \( B \) any time after you play \( A10 \).
(Duos dissolve; each performer plays independently until the end.)
Moving in order from 1 to 28, create material by pairing a gesture from the top chart with the appropriate number of consecutive pitches from the bottom chart. (Always begin at a different point on the bottom chart.) Play independently, overlapping freely with the gestures of the other instruments. Play each gesture in a single breath, sempre legatissimo.

Vary the durations. The dynamic range is from $ppp$ to $f$.

Leave a pause of 12" or longer between each gesture.

1. \( \circ \)
2. \( \circ \)
3. \( \circ \circ \)
4. \( \circ \)
5. \( \circ \circ \)
6. \( \circ \circ \)
7. \( \circ \)
8. \( \circ \circ \)
9. \( \circ \circ \)
10. \( \circ \circ \circ \)
11. \( \circ \circ \) 15. \( \circ \circ \circ \)
16. \( \circ \circ \)
17. \( \circ \circ \circ \)
18. \( \circ \circ \)
19. \( \circ \circ \circ \)
20. \( \circ \circ \circ \)
21. \( \circ \circ \)
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24. \( \circ \circ \circ \circ \circ \)
25. \( \circ \circ \circ \)
26. \( \circ \circ \circ \circ \circ \)
27. \( \circ \circ \circ \)
28. \( \circ \circ \circ \circ \)
Moving in order from 1 to 28, create material by pairing a
gesture from the top chart with the appropriate number of
consecutive pitches from the bottom chart. (Always begin at
a different point on the bottom chart.) Play independently,
overlapping freely with the gestures of the other instruments.
Play each gesture in a single bow, *sempre legatissimo.*
Vary the durations. The dynamic range is from *ppp* to *f.*

Leave a pause of 12" or longer between each gesture.

1. o  
2. o  
3. oo  
4. o  
5. oo  
6. oo  
7. o  
8. oo  
9. oo  
10. oo  
11. oo  
12. oo  
13. oo  
14. oo  
15. ooo  
16. ooo  
17. ooo  
18. ooo  
19. ooo  
20. ooo  
21. ooo  
22. ooo  
23. ooo  
24. ooooo  
25. ooooo  
26. ooooo  
27. ooooo  
28. ooooo  

End sometime soon after the electronics fade out completely, wherever you are in the material.

Freeze for 20".
Play these ten units in order. Always coordinate precisely with the other member of your duo.

Your duo’s playing must not overlap with any other duo’s playing; wait at least three seconds after another duo has stopped before entering. Utilize eye contact and awareness to settle on the right moment to begin each unit. (If two duos end up starting at the same moment, they may both continue without shame.)

Never play twice in a row; at least one other duo must play a unit in between. (Exception to this rule: the last group to finish may end up playing their final units in a row.)

Any duo may begin.
Move to \( B \) any time after you play \( A10 \). (Duos dissolve; each performer plays independently until the end.)
Moving in order from 1 to 28, create material by pairing a gesture from the top chart with the appropriate number of consecutive pitches from the bottom chart. (Always begin at a different point on the bottom chart.) Play independently, overlapping freely with the gestures of the other instruments. Play each gesture in a single breath, *sempre legatissimo.* Vary the durations. The dynamic range is from *ppp* to *f.*

Leave a pause of 12" or longer between each gesture.

| 1.  | 2.  | 3.  | 4.  | 5.  | 6.  | 7.  | 8.  | 9.  | 10. | 11. | 12. | 13. | 14. | 15. | 16. | 17. | 18. | 19. | 20. | 21. | 22. | 23. | 24. | 25. | 26. | 27. | 28. |
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End sometime soon after the electronics fade out completely, wherever you are in the material.

Freeze for 20" then quietly exit the stage.
Moving in order from 1 to 28, create material by pairing a
gesture from the top chart with the appropriate number of
consecutive pitches from the bottom chart. (Always begin at
a different point on the bottom chart.) Play independently,
overlapping freely with the gestures of the other instruments.
Play each gesture sempre legatissimo, always letting the notes
ring. Vary the durations. The dynamic range is from ppp to f.

Leave a pause of 12" or longer between each gesture.

1. ○ (l.v. sempre)  15. ○○○
2. ○  16. ○○○
3. ○○  17. ○○○○
4. ○  18. ○○○
5. ○○  19. ○○○○
6. ○○  20. ○○○○
7. ○  21. ○○○
8. ○○  22. ○○○○
9. ○○  23. ○○○○
10. ○○○  24. ○○○○○
11. ○○  25. ○○○○
13. ○○○  27. ○○○○○
14. ○○  28. ○○○○

End sometime soon
after the electronics
fade out completely,
wherever you are in
the material.

Freeze for 20"
before moving for
the next section.
Play these nine units in order. Always coordinate precisely with the other member of your duo.

Your duo’s playing must not overlap with any other duo’s playing; wait at least three seconds after another duo has stopped before entering.

Utilize eye contact and awareness to settle on the right moment to begin each unit. (If two duos end up starting at the same moment, they may both continue without shame.)

Never play twice in a row; at least one other duo must play a unit in between. (Exception to this rule: the last group to finish may end up playing their final units in a row.)

Any duo may begin.
Move to [B] any time after you play A9. 
(Duos dissolve; each performer plays independently until the end.)
Moving in order from 1 to 28, create material by pairing a gesture from the top chart with the appropriate number of consecutive pitches from the bottom chart. (Always begin at a different point on the bottom chart.) Play independently, overlapping freely with the gestures of the other instruments. Play each gesture *sempre legatissimo*, always letting the notes ring. Vary the durations. The dynamic range is from *ppp* to *f*.

Leave a pause of 12" or longer between each gesture.

1. \(q\) (*l.v. *sempre)*
2. \(q\)
3. \(\overline{q} \overline{q}\)
4. \(q\)
5. \(\overline{q} \overline{q}\)
6. \(\overline{q} \overline{q}\)
7. \(q\)
8. \(\overline{q} \overline{q}\)
9. \(\overline{q} \overline{q}\)
10. \(\overline{q} \overline{q} \overline{q}\)
11. \(\overline{q} \overline{q} \overline{q}\)
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13. \(\overline{q} \overline{q} \overline{q}\)
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27. \(\overline{q} \overline{q} \overline{q} \overline{q}\)
28. \(\overline{q} \overline{q} \overline{q} \overline{q}\)

End sometime soon after the electronics fade out completely, wherever you are in the material.

Freeze for 20" before moving for the next section.
Moving in order from 1 to 28, create material by pairing a gesture from the top chart with the appropriate number of consecutive pitches from the bottom chart. (Always begin at a different point on the bottom chart.) Play independently, overlapping freely with the gestures of the other instruments. Play each gesture in a single bow, *sempre legatissimo*. Vary the durations. The dynamic range is from *ppp* to *f*.

Leave a pause of 12" or longer between each gesture.

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End sometime soon after the electronics fade out completely, wherever you are in the material.

Freeze for 20".
Trigger just before the first duo begins.

The performers end sometime soon after the electronics fade out completely.

Freeze for 20°.
XIV.

ruins in reverse

clarinets + violins
duration
around two minutes and thirty seconds

attacca
XIV moves directly into XV. At the double bar, the electronics performer gives a cue to signal the change between movements, and the electronic sounds abruptly shift.

electronics
Trigger the letters as indicated in your part. The movement begins with electronics alone. Around forty seconds after the third pitched event (after all four performers play their “D” gestures) trigger the shift to the next movement.

instructions
There is no full score, only parts.

This movement is divided into four sections, labeled A, B, C, and D. Within each section, play each gesture once, beginning at any time. Three pitched events, each lasting around ten seconds, are played back from the radios; they function as audible signals that cue the starts of sections B, C, and D.

You may overlap your gestures with other performers as desired, but do not attempt to align rhythmically or play “in time” with any other part.

Play the repeated quarter notes always with slight rubato; there is no need to be metronomic.

Clarinets use a slap tongue articulation that is very dry and short, with a prominent attack and subtle resulting pitch.

Violins use a dull pizzicato, without too much resonance.

The general dynamic is mf, though the accented notes should be noticeably louder than the unaccented notes. Violins may choose to occasionally use a snap pizz for an accented note.

After the movement ends, violins and clarinets quickly and quietly exit the stage.

stage locations
before = cls stand at E1/E3, tbs EXIT STAGE, and prs to P2/P3
during = none
after = cls EXIT STAGE and vns EXIT STAGE
Play each gesture once, beginning at any time within the indicated section.
Listen for the radio events that cue the starts of sections B, C, and D.
Gestures may overlap, but do not attempt to align with any other part.

When the next movement begins, quietly exit the stage.
Play each gesture once, beginning at any time within the indicated section. Listen for the radio events that cue the starts of sections B, C, and D. Gestures may overlap, but do not attempt to align with any other part.

When the next movement begins, quietly exit the stage.
Play each gesture once, beginning at any time within the indicated section. Listen for the radio events that cue the starts of sections B, C, and D. Gestures may overlap, but do not attempt to align with any other part.

When the next movement begins, quietly exit the stage.
Play each gesture once, beginning at any time within the indicated section. Listen for the radio events that cue the starts of sections B, C, and D. Gestures may overlap, but do not attempt to align with any other part.

When the next movement begins, quietly exit the stage.
Around forty seconds after the third pitched event, trigger the shift to the next movement. (Wait for all four performers to play their gestures first.)

(chopped up field recs)

(pitched event from radios)

(pitched event from radios)

(pitched event from radios)
XV.

*untitled (definite space)*

percussion
duration
around six minutes and forty-two seconds

attacca
XIV moves directly into XV. Begin immediately at the electronics cue that ends XIV, as the
electronic sounds abruptly shift.

electronics
Trigger the letters as indicated in the score, following cues from the percussionists. The
final trigger, in measure 62, cuts off the field recordings and reveals the subwoofer drone.
This drone plays on its own for around thirty seconds before ending abruptly, signalling
the end of the piece.

instructions
Always very soft, inward, just barely coloring the atmosphere.
Vertical dotted lines indicate moments of coordination with the electronics. Begin or end
as indicated.

 Arrows indicate a continuous movement of the mallets/beaters from the center of the
drum to the edge closest to you, lasting the full duration of the roll. (On rolls
that involve both performers, begin with mallets/beaters almost touching at the
center of the drum and gradually move towards opposite edges.)

 Dots indicate a stationary and continuous roll at the center of the bass drum.

Play the first two pages from a shared music stand located on the far side of the bass drum
(towards the center of the performing area). Then rotate and play the remaining pages from
individual music stands, each with a triangle hanging from it. (Mount the triangles with
the open corner facing down, using two clips for each.)

Play the triangle with two wire brushes.
At measure 63, percussionists quickly and quietly exit the stage.

stage locations
before = none
during = cls EXIT STAGE and vns EXIT STAGE
after = prs EXIT STAGE
\[ \text{score XV.3} \]

\[ j = 60 \]

\[ \text{take cue from elec} \]

\[ \text{bass drum} \]

(bass drum beaters)

pr.1

\[ \frac{9}{4} \]

\[ \text{pppp} \]

pr.2

\[ \text{(high field reeds)} \]

\[ \text{(low field reeds)} \]

elec

(rehearsal only)

\[ \text{bass drum} \]

(soft timpani mallets)

pr.1

\[ \frac{9}{4} \]

\[ \text{pppp} \]

pr.2

\[ \text{elec} \]

(rehearsal only)

\[ \text{pppp} \]

\[ \text{pppp} \]

\[ \text{(rehearsal only)} \]

\[ 111 \]
quietly exit the stage

(subwoofer drone)
The Map and the Territory: Documenting David Dunn's *Sky Drift*
At first, there is only the sound of a slight breeze pushing against the microphone diaphragm, a low rumble, followed by the quiet and tentative shuffling of feet. After a moment, a synthesized drone begins, soon joined by voices, flutes, clarinets, and brass. The texture is dense, the sound almost claustrophobic, pressing against the playback speakers. Dissonant clusters briefly congeal and then disperse. The stereo image spreads the instruments and voices across a wide spectrum, with overlapping sounds emerging from the left, center, and right. Over the next thirty minutes, the music develops at a glacial pace: the electronic drone and the voices remain prominent, while the gestures played by the wind instruments gradually grow fainter and fainter until, after twenty minutes, they disappear altogether. The voices begin to drop out one by one, and finally we are left hearing only the persistent electronic drone for the recording's final thirty seconds.  

In January 1979, David Dunn presented this recording of his composition Sky Drift at The Kitchen, an experimental art and music venue in New York City. Sky Drift—written for ten vocalists, sixteen instrumentalists, and four channels of electronic sound—had been performed and recorded just over a year earlier, in December 1977, at an outdoor event at Little Blair Valley in Southern California's Anza-Borrego Desert State Park, which marked both the work's premiere and only performance. Dunn labeled this re-presentation of the work in New York City "an environmental performance/documentation." First, the Kitchen audience listened to forty minutes of taped post-concert interviews with many of the Sky Drift musicians, Dunn's open-ended questions inviting

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his interviewees to reflect on their experiences of playing the piece. This long
introduction was followed by the complete thirty minute recording of the outdoor Sky
Drift performance. In addition to the audio playback, images were projected onto the
walls: photographs of singers and wind players performing out in the midst of a wide-
open desert landscape. Despite Dunn's careful curation, the performance/documentation
at the Kitchen was neither a critical nor popular success. According to a New York Times
review, the audience "walked out in droves."²

Anthropologist and early cyberneticist Gregory Bateson taught his students that
"the map is not the territory, and the name is not the thing named."³ In presenting a
concert version of an audio recording of an outdoor performance, David Dunn—who
frequently cites Bateson as a major influence in his own writings—confronted his
audience with an unusual challenge: how can a listener be expected to separate "the
map" of the recording from "the territory" of the original performance? What can a
listener come to understand about the 1977 Little Blair Valley event via a two-channel
audio recording? In other words, how can a complex and interactive experience like an
outdoor performance best be distilled into some kind of re-playable documentation? Or,
perhaps more broadly: what can a recording capture and what must it exclude? Sky Drift
proves to be a slippery example, an interesting case, a kind of music that refuses to give
way to a convincing reproduction.

In the late 1960's and early 1970's, a number of American visual artists began creating monumental site-specific works in remote outdoor locations. These so-called "earthworks"—including Robert Smithson's *Spiral Jetty* (1970), Michael Heizer's *Double Negative* (1970), and Walter De Maria's *Lightning Field* (1977)—are located many miles from paved roads, inaccessible to all but the most dedicated art aficionado. As most people will only experience this art through its documentation, these artists often constructed elaborate films and photographs in order to share their isolated creations with a broader audience. In 1970, the Virginia Dwan Gallery in New York City built a show around Smithson's *Spiral Jetty*—a curving tail of rocks extending out into Utah's Great Salt Lake—consisting of drawings and photographs of the site, along with a thirty minute film detailing the piece's design, construction, and finished appearance.

David Dunn has written that his "early experiments in interactive, wilderness-based, site-specific sound works [were] influenced by the land art of the period," and certainly his approach to sharing *Sky Drift* with a larger audience mirrored the efforts of these visual artists. In his 1979 New York City performance/documentation, Dunn drew on a variety of different strategies to re-present elements of the Little Blair Valley performance, including audio recording, photographs, and interviews with musicians. A few months later, Lingua Press released a *Sky Drift* book, which further revealed the extent of Dunn's careful approach to documentation. In addition to images of the event—printed alongside transcripts of the twenty-seven participant-interviews—Dunn

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included several pages of his own explanatory writing about the project, along with a full-color graphic score.\(^6\)

The composer also boldly chose to reprint two press reviews from the Kitchen event, placing them prominently on the book's inside back cover. The two reviewers, Peter Kivy and John Rockwell, both panned the performance/documentation in no uncertain terms. Kivy, writing for the Soho Weekly News, criticized the long interview segment that began the event:

Had Dunn modestly and unpretentiously presented his composition for what it was, a not very shocking or surprising experiment in improvised sonorities, it might have had at least the limited musical effect of which it was capable. [...] One could not help leaving slightly angry, and convinced a great deal of hoopla had been generated for the purpose of covering up a poverty of musical imagination.\(^7\)

Rockwell, writing for the New York Times, also disapproved of Dunn's choice to combine the interviews and the music: "[It] had the effect of expanding an already-complex musical work into concept art, in which the ramifications of the piece [...] became almost more important than the music itself."\(^8\) Rockwell's attempt to separate out the "music itself" from the rest of the event begins to reveal the problematic nature of this kind of performance/documentation: what exactly is the "music itself" of Sky Drift? Is it an outdoor performance? An audio recording? Does it include photographs? Interviews? A book?

Dunn offers his answer to these questions in the written program notes for Sky Drift, suggesting that all of these approaches to documentation are, in fact, part of the

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\(^6\) The two channel audio recording of the piece was not made publicly available until a retrospective CD of Dunn's early environmental work was released by Innova Records in 1996. [See footnote 1.]


piece: "The interviews have served to unify the composition's parts by describing the
diversity of the participants' experiences. Thus the composition is now inclusive of not
only a complex sonic event but also information about the conditions necessary for its
existence (e.g., psychological states of the performers.)"9 Yet Peter Kivy's review explicitly
disagrees, denying Dunn's suggestion on its face: "Dunn conceives of his show,
apparently, not as two things but as one. [...] But whatever his intentions, Sky Drift
remains two things, not one: the interviews no more become part of the music than does
the Opera Quiz become part of Rigoletto."10 So is who is right: Dunn or Kivy? Is Sky Drift
composed of one thing or many? And who gets to decide what is meant by the "work
itself"?

In his 2006 piece "The Work Itself," Howard S. Becker explores the many
implications of this commonly used phrase. He points out that to talk about the "work
itself" is often to engage in a kind of communication shorthand, a shared agreement that
two people are, in fact, talking about the same thing. Becker writes:

This is not merely a philosophical conundrum or a sociological caprice. If the
artwork is fundamentally indeterminate, people will have problems dealing with
it. They will not be sure when it exists and when it doesn't, won't know what its
form and nature are, won't be able to talk about it (after all, which version are we
discussing?). They (and therefore we) can only distinguish the 'work itself' by
invoking some convention as to what—which of the many forms it takes from
moment to moment—counts as the 'real,' 'basic' work and which kinds of variation
don't matter, don't interfere with the 'fundamental' or 'essential' character of the
'work itself.'11

The idea of "invoking some convention" is particularly complicated by an unconventional
work like Sky Drift, which surely earns Becker's "indeterminate" label. The conventions

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1979.
11 Becker, Howard S. "The Work Itself." in Art from Start to Finish. (Chicago: University of Chicago Press,
2006), 23.
that apply to our traditional understanding of a work—that a recording of a performance is somehow "fundamentally" similar to the original performance, that the map shares some "essential" relationship to the territory—are no doubt challenged by a concert that features the playback of a recording of another concert.

Though Rockwell's review invokes convention by separating the interviews and documentation from the "music itself," he ultimately takes a more nuanced view than Kivy regarding the distinction between map and territory. In his conclusion he writes:

The trouble was that although the ramifications were interesting enough, the documentation wasn't, and neither was the music. No doubt it might have been heard live, with the instrumentalists wandering ever farther from the choral group and electronic sound sources, 'performing in response to information from the environment.' But the tape-recording failed to capture any of that sense of space, and the actual sounds—evocative but basically unchanging sustained textures that sounded like the Ligeti used in the film 2001—weren't very evocative of the desert.12

Rockwell's acknowledgment of the existence of a gap, a separation between the experience of the recording and the experience of the live event, is a crucial observation in his discussion of the performance/documentation. Conceiving of Sky Drift as a dense and multifaceted work—instead of simply "music itself"—allows us to explore this gap in greater detail.

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Before taking a closer look at the Sky Drift recording, it is necessary to understand at least a few details of the original performance in the Anza-Borrego Desert. The poster-size foldout score contains the graphic notation read by each of the instrumentalists and

vocalists. The wind and brass parts are written as a grid, with each box representing fifteen seconds (and each line of twelve boxes representing three minutes). Within each box, colorful notations indicate a variety of improvised activities: silences, sustained tones, short tones, and interactive "responses" to the total sounding environment. Additionally, the score features a diagram that details the piece's choreography: all the musicians begin in a tight circle at the center of the performance area, and then, over the course of the thirty minute performance, the instrumentalists gradually drift outwards, making audible the space and distances between them. At the close of the piece, the musicians play across vast stretches of emptiness, forming a circle over eight football fields in diameter.\footnote{Dunn, David. *Sky Drift: 1976-1978*. (La Jolla, CA: Lingua Press, 1979).}

By the end of the Little Blair Valley event in 1977, the recording equipment—located at the center of this wide circle—was unable to pick up the sounds of these distant instruments; on the finished recording, the wind and brass sounds gradually fade over twenty minutes before vanishing completely. Likewise, the instrumentalists performing in the piece could not hear each other as they gradually moved farther and farther from the center. Listening across these physical distances invokes a kind of ontological challenge, again reminding us that the "music itself" is never just one thing. If each performer of *Sky Drift* had a unique listening experience over the course of the performance, which of them can say that they heard "the music"? What would it mean to record "the music" when it differs so much from each listening perspective?

Jack Logan, who played trumpet in the *Sky Drift* performance, discussed the relationship between performing the piece and then later listening back to the recording during his post-event interview with Dunn:
As you listen to it—as we both listen to it back on the tape, it was so vastly
different than any of my perceptions about the piece, because where I was, during
the course of the piece, it was very quiet. But if you listen to the tape, what you
hear is this massive sound. You know, with a traditional piece, even a traditional
Stravinsky piece or anything like that, you have a very good idea of what sounded
like if you were playing in it or participating in it. It’s not that way here.14

Logan echoes the anxieties of Rockwell—underlining the phenomenological distance
between the non-transparent recording and the live performance—but then pushes the
issue further by questioning whether "hearing" the piece at all is even possible: "I think
the piece is too complex to make any concrete observations about. And also, since we've
neither heard it—I mean, since we really haven't heard it yet and never will, it's also
difficult to make observations about something that isn't."15

Logan contrasts Dunn’s work with Stravinsky to demonstrate an epistemological
dilemma, suggesting that while we can know what certain pieces of music "sounded like,"
for other pieces we "never will." When he offers that perhaps Sky Drift is "too complex" to
observe, he is really pointing towards the infinite possible variations of listener-
perspective.16 Of course, differing acoustical considerations (reflections, distances, etc.)
will always cause variations for every listener; Stravinsky's music, written to be
performed in a concert hall, sounds slightly different to each listener at each location in
the hall, though all leave the concert feeling that they have "heard the music." During a
performance of Dunn's Sky Drift, on the other hand, a listener might hear a completely
unique version of the piece, one that differs completely from anyone else's experience. By
incorporating musicians moving across a vast outdoor landscape—with no fixed position

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15 Ibid., 69.
16 Though participating in the interview regarding his role as a performer, Jack Logan also served as a listener
for fully fifteen of Sky Drift’s thirty minutes: according to the graphic score that he played from—in which
empty grid boxes indicate silence—he rested (and thus listened) for half of the piece.
for the audience—the composer has assured that the variety of possible reflections and
distances has increased exponentially. No single listener can claim an authoritative
listening perspective.

What, then, is the nature of the relationship between the sounds of the live
performance and a recording of the performance from a single perspective? Later in the
same interview, Jack Logan curiously backtracks on his earlier position, assigning the
ultimate authority to the Sky Drift recording:

**Logan:** I suppose that if I hadn't heard the tape, it would've been far more
unknowable than it is now... in the sense that I would not have heard it literally.
No one would have.

**Dunn:** Do you feel that you *have* heard it?

**Logan:** No... I feel like I've heard more of it. I may not have—well, sure I feel like
I've heard it. Yeah, I do. There's a completion that exists because of that tape.
There's a fulfillment that seems to have occurred. 17

Again, Logan's introspective comments offer a lot to be unpacked. Despite his earlier
assertion that the multiplicity of perspectives offered by Sky Drift make it impossible to
hear, he eventually relents, claiming that the tape offers a way to hear the piece
"literally," that the tape functions as an authoritative master that offers "completion" and
"fulfillment." Other Sky Drift participants echo Logan's revised sentiment in their
interviews with Dunn, defining the recording as crucial to understanding the piece—that
the recording is, in the end, what allows you to "hear the music." Vocalist Ric Cupples
describes the importance of the recording to his own memory: "In the process of listening
to the tape, everything seemed to come together in my mind.... Like, the tape was
actually a catalyst to bring all of the recollections back into place." 18 Trumpeter Larry Fant

For decades, scholars and writers have struggled to understand how listeners interpret the differences between live musical experiences and recorded musical experiences. Concepts like Walter Benjamin's "aura" from his often-cited "The Work of Art in the Age of Mechanical Reproduction" (discussed in greater detail below) or R. Murray Schafer's "schizophonia" from Tuning of the World, emphasize and underscore the fundamental differences between the experience of a live event and the experience a recorded (or reproduced) event. Other scholars have pointed to the opposite conclusion: that since both live-ness and recorded-ness involve listening—a body engaging with sound—the fundamental similarities between the two kinds of experience are stronger than their differences.

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19 Ibid., 40.
In their 2010 article "Deadness: Technologies of the Intermundane," Jason Stanyek and Benjamin Piekut take issue with Schafer's term "schizophonia." Schafer uses schizophonia to disparagingly refer to any recorded situation, to a sound disconnected or severed from its source and played back into a room other than the one it was made in. Stanyek and Piekut point out that "all sounds are severed from their sources—that's what makes sound sound." Rather than label certain sounds as "real" and others as "fake"—with the "territory" of live performance standing as a stark opposite to the "map" of a recording—it is worth acknowledging that all sounds, live and recorded, are equally real to the human body that is hearing them.

How, then, can we properly articulate the differences in the experiences of a recording and a live performance? (Recall Rockwell's qualification in his performance/documentation review: "No doubt it might have been heard live [...] but the tape-recording failed to capture any of that sense of space." Gene Wahl, the recording engineer for the Sky Drift performance, offered a similar comment—distinguishing between the two kinds of experience—during his post-concert interview with Dunn:

The tape itself is a different thing than the performance. The response it elicits from people, I think, is different than the response that would've been elicited had they been there. Like, I know in myself, listening to the tape, it elicits a different response than the actual performance did while I was there. I'm not saying that the tape is a bad thing. It's just, I think that... I guess, the crucial point in my mind is that, in this day and age of technology, I think we should be aware of the limits of technology.

In a 2007 article that explores these very limits, philosopher Joshua Glasgow carefully stakes out a position he calls "hi-fi aesthetics" or the "transparency thesis." He writes:

"Recordings have the potential to transmit to us the sounds that we would have heard had we been there to hear the original performance"—in other words, it is possible for the map to be phenomenologically inseparable from the territory. Glasgow defends this bold claim with a broad range of well-conceived arguments; he makes it clear that while not every recording is transparent, the potential exists—at least in the abstract—for recordings to "purely' or 'faithfully' document the performance they record, presenting for the home-bound listener a completely unvarnished sonic window onto the original performance."

In his acknowledgement that "some recordings are more transparent than others," Glasgow suggests the existence of a spectrum of transparency, with more-transparent recordings on one side and less-transparent recordings on the other side. It may thus be productive to adopt one additional metaphor: "distance" can be used to place recordings along this spectrum, with some recorded sounds very "close" to the sounds of a live experience while others remain "far away" from live experiences. A truly transparent recording would be so "close" to the original sound as to be indistinguishable in every way. As we will see, many factors affect the "distance" between a recording and a live experience, including the quality of the recording equipment, often called "fidelity." Some of the Sky Drift recording's enduring lack of transparency (as acknowledged by Rockwell and Wahl) can blamed on the technology available to Dunn at the time: an 1970s-era analog recording made with battery-powered equipment in a remote outdoor location will almost always offer a "more distant" reproduction quality than a modern digital recording. But there are deeper and more complex factors at work that make a truly

26 Ibid., 164.
27 Ibid., 164.
transparent version of *Sky Drift* difficult to imagine. Even if we accept Glasgow's transparency thesis—that some pieces of music can be documented "purely" or "faithfully"—there are elements of Dunn's work that strongly resist the kind of transparency that Glasgow proposes.

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One of the unique characteristics of outdoor performance is the way in which it engages with physical space, fostering a multiplicity of listener-perspectives as both musicians and audience move around. These changing locations and perspectives create a shifting soundscape that remains constantly in flux. Crucially, each listener is able to make choices about his/her own experience, drifting at will towards or away from particular sounds and establishing a personalized aural pathway through the work. The particularly broad agency afforded to a listener to position one's body in a venue with no walls and no fixed seats is of a fundamentally different nature than the agency afforded to a listener in a standard forward-facing fixed-perspective concert setting. Since the sounds of an outdoor performance differ so greatly from location to location—to a much greater degree than any pair of seats in a concert hall—any microphone thus captures only a thin fragment of the sonic totality, recording from only one of an infinite number of valid perspectives. In this way, the physical set-up of the piece—its very listening-situation—vastly complicates the issue of transparent documentation.

There are two obvious strategies for recording spatially complex outdoor performances, each problematic in a different way. First, an audio recording can be made
with stationary microphones that document the performance from a single fixed perspective. This method ignores the potential motion of a listener's body, instead capturing the experience of a stationary listener. A second approach might instead use either a moving microphone or a series of carefully-edited crossfades between a large number of widely-spaced microphones to more closely duplicate the experience of a gradually shifting perspective, creating the illusion of "moving" through the work. Of course, moving microphones and careful crossfades—no matter how cleverly conceived and executed—can only capture one possible pathway through the work, instead of the infinite number of possible paths a listener might choose. Both approaches ignore the idea of agency, of an audience member's ability to actively affect the sound by changing his/her listening position during the performance.

A third recording strategy—one that does incorporate a listener's agency—can be imagined, though it currently sits at the margins of technological possibility: a huge battery of sensitive omnidirectional Ambisonic microphones might capture an outdoor performance from many possible perspectives and then a listener, outfitted with high-quality headphones and connected to powerful computer processor running some kind of adapted game-engine software, might be able to "walk-through" a virtual performance of a piece of outdoor music. The limiting factor in this scenario—besides the tremendous expense of the equipment needed to both record and play back an outdoor performance experience in this way—is that the physical size of the virtual reality re-performance space would need to be equal to or larger than the original performance area, meaning that in the case of Sky Drift, the headphone-wearing listener would need to be able to navigate through a barrier-free circle over half a mile in diameter. Considering the
compounding logistical difficulties of this documentation strategy, it remains speculative at the present time.

Many composers and musicians have struggled with the challenges of reducing the multivalent experience of an outdoor work into a convenient re-playable format. The creation and distribution of recordings of outdoor music allow these kinds of pieces to be effectively commodified and distributed to a much larger audience than just those able to attend the outdoor performance. While David Dunn chose the first recording strategy—stationary microphones recording a fixed perspective—for *Sky Drift*, other composers have adopted the more complex cross-fading approach in order to create the illusion of moving one's ears from place to place. In 1976, Deutsche Grammophon released a two-LP set of Karlheinz Stockhausen's *Sternklang*, an outdoor piece written for twenty-one musicians and premiered in a park in Berlin. The musicians are divided into five groups (or "constellations") and distributed around the performance area, at least sixty meters away from each other. The audience is invited to circulate freely during the work's three-hour duration.28

Stockhausen's approach to creating a recording of the piece was to reinvent it entirely, converting it into a kind of sonic-collage-for-home-listening instead of trying to capture the full experience of an outdoor performance. To this end, he brought the performers into a recording studio in Paris and recorded each of the five groups in isolation. Then he painstakingly created a stereo version of the piece that slowly crossfades between the groups, using dynamic balance and other mixing techniques to

place one or two groups "nearer" to the ear while the other groups appear "farther away" to the ear. Each crossfade imitates the effect of a listener's gradual movement from location to location around the park, bringing each group into sonic focus for a time. While the illusion of movement in the finished recording is effective, of course, we are pulled along by Stockhausen's navigational choices instead of being able to make our own.

John Luther Adams adopted a related strategy for his 2013 recording of *Inuksuit*, an hour-long outdoor work scored for a large group of percussionists. Like Stockhausen, Adams (along with Doug Perkins, the producer) chose to use many microphones and clever mixing to virtually shift the listening perspective throughout the course of the recording. But the *Inuksuit* audio has two additional features that distinguish it from *Sternklang*: first, it was mixed and released in a 5.1 surround-sound DVD version, which more fully immerses a listener in sound than a stereo recording. Additionally—in contrast to Stockhausen's transfer of the piece from a park to a recording studio—the *Inuksuit* recording was made on location in a Vermont forest. The sounds of the forest, including singing birds and a babbling stream, are integrated with the sounds of the percussionists, creating a kind of continuous dialogue between music and environment. While the recording is neither a direct duplicate of an *Inuksuit* performance nor a substitute for hearing the work in person, these creative approaches to documenting an outdoor performance do much to reduce the "distance" between the recording and the live experience.

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To return briefly to Joshua Glasgow's "Hi-Fi Aesthetics," the author offers a number of eloquent arguments to defend his position that the existence of a transparent recording is indeed plausible. Glasgow rejects the claim that transparency is inevitably affected by the recording perspective or that any fidelity to an original performance is automatically compromised by the fact of the microphones existing in a particular configuration. He writes:

Far from undermining the possibility of transparency, this claim seems to detail one of its necessary conditions, namely, that the listener assume a specified spatial location. [...] Consider that just as one must listen to recordings from a certain perspective, so must the live audience, and we do not really think the person sitting in the balcony gets a less real sound than the person sitting in the front row.30

Glasgow's over-reaching assumption—that the each audience member must listen from a "certain perspective," presumably fixed for the duration of the performance—is directly challenged by the outdoor works of Dunn, Stockhausen, Adams, and others that encourage listeners to circulate and change perspectives. Furthermore, if we accept Glasgow's argument that a "specified spatial location" is a needed for transparency, then a performance like Sky Drift, which embraces a diversity of perspectives and listening locations, can never manage to achieve a transparent or "hi-fi" documentation. In comparison to the sounds of twenty-six musicians spread out across a half-mile stretch of desert, a fixed recording—whether it comes from two stereo speakers or the six speakers of a 5.1 surround sound set-up—offers up a vastly reduced number of listener-perspectives. We can certainly imagine a creative listener circumnavigating her living room while playing Dunn's Sky Drift recording at home, adjusting the distances and positions of her ears in relation to the two speakers to vary the balance between the

instruments. But it is clear that this kind of experience, in its severely limited possibilities, is destined to remain forever "distant" from the experience of circumnavigating Little Blair Valley during a performance of the piece outdoors.

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In 1964, the American visual artist Robert Irwin exhibited a strange series of paintings consisting only of tiny pink and green dots arranged into meticulous rows on a white canvas. When viewed from a certain distance and in certain light, these works have an uncanny visual energy; they give off a mysterious optical vibration. In person, one is almost compelled into a kind of dance with the painting, moving closer and farther away, exploring the effects of different angles and different distances on one's one perception. Irwin famously objected to the photographic reproductions of these paintings, and would not allow the "dot paintings" (as they came to be called) to be shared in magazines or gallery catalogs. This unusual objection came after Irwin's lengthy philosophical reflection on the inherent dual nature of visual art. In a statement printed in Artforum in 1965, he distinguished between a painting's "identity" and its "physical existence," arguing that while identity could be transferred by a photograph, physical existence is always tied to an object or to a place.\(^{31}\)

Irwin later refined his preferred terms for this duality, replacing identity with "image" and physical existence with "presence." Biographer Lawrence Weschler writes, "Irwin felt that a photograph would capture none of what the painting was about and

everything that it was not about. That is, a photograph could convey image but not presence." As Irwin's paintings became more and more minimal in the mid-1960's, the balance between image and presence in his works slowly shifted. Eventually, subtle abstractions like the dot paintings contained just the merest suggestion of "image"; instead, the works' "presence," their physicality, took center stage. Since, according to Irwin, presence is non-transferable, the paintings require a firsthand experience. In this way, the dot paintings are fully undocumentable; you must see them in person to "see" anything at all.

Irwin's concepts of image and presence find a musical analogue in Barry Truax's 1994 article "The Inner and Outer Complexity of Music." Here Truax proposes the terms "inner" and "outer" to describe two ways of thinking about the relationships that exist within (and around) a piece of music. Inner relationships are descriptions of the music's rhythms, melodies, harmonies, and timbres. These are the standard tools of musical analysis, as well as the kinds of details likely to be found in a traditional musical score. On the other hand, outer relationships deal with the interactions between a work and the world outside the work. To return to Becker again, it is the inner relationships of music (and images of art) that comprise what is traditionally thought of as the "work itself," while the outer relationships (or presence) are often dismissed as "extra-musical," relegated to extraneous context rather than essential text. These divisions were indeed

32 Weschler, Lawrence, and Robert Irwin. Seeing Is Forgetting the Name of the Thing One Sees: A Life of Contemporary Artist Robert Irwin. (Berkeley and Los Angeles: University of California Press, 1982), ix. See page 61 for additional information on "image" and "presence."

33 In a similar vein, artist Michael Heizer refused to allow photographs or documentation of his site-specific 1970 work Double Negative into a 2012 exhibition at Los Angeles's Museum of Contemporary Art. Christopher Knight writes that "Heizer—perhaps being overly cautious—worries that documentation in a museum gallery misrepresents sculpture that can be known only through physical experience." See Knight, Christopher. "Art Review: 'Ends of the Earth' Brings Land Art Indoors." Los Angeles Times, 3 June 2012.

"collectively defined"—and reinforced—by centuries of convention-invoking thought about art and music.

In their respective fields and with their own idiosyncratic terminologies, Truax and Irwin argue for a less-divisive understanding of art and music, a deeper appreciation of both text and context. They offer a method of searching for meaning beyond the "work itself," suggesting that it can be found not just within the relations of a work's internal parts but outside as well, in the work's relationship to the external world around it. Truax asserts that a piece of music's ultimate value can be found in a proper balance between its inner and outer complexities, writing: "The ideal situation, in my mind, is to have a continual flow of influence back and forth between the internal and external levels of the musical process, where each informs and enhances our understanding of the other." 35

Robert Irwin, by contrast, takes the extreme opposite view, intentionally unbalancing the inner and outer relationships to achieve his aesthetic goals. His artworks draw attention to a work's presence by reducing the image as much as possible. 36 In this situation, the external complexities—the changing lighting conditions, the spatial relationships between the art and one's own body, and other specifics—reveal themselves to an observant viewer.

Sky Drift is similarly unbalanced, focusing on outer complexities at the expense of inner complexities. According to David Dunn's introductory notes, the piece is "a sonic exploration of the physical characteristics of the performance site resulting in an intensification of perceptual focus toward these physical characteristics." In other words,

35 Ibid., 179.
36 Irwin’s attention to presence is legendary, with stories of the artist spending days repainting and resurfacing walls and adjusting the gallery lighting in order to install just one or two paintings. Eventually this obsession with context led Irwin away from painting altogether, and towards a conditional site-specific practice that responded to the site of the work’s installation.
the meaning of the piece is not found only in the sounds made by the musicians—the abrupt brass gestures, the dissonant clusters of voices, the atmospheric electronic drones—but in the way those sounds succeed in redirecting one's perception towards the acoustic and spatial effects of Little Blair Valley. Unfortunately, the recording of *Sky Drift* succeeded in capturing the "inner" relationships of the piece, the pitches and harmonies—the "notes on the page"—and failed to properly capture the "outer" spatial relationships, which were only heard by those present. Those focused only on *Sky Drift*'s inner relationships (recall Kivy's snide comment about its "poverty of musical imagination") arguably miss the intent of the piece altogether. Just as Robert Irwin declared his dot paintings unsuited for reproduction, unbalanced music—music that engages with "outer" at the expense of "inner"—is similarly unsuited for recording. Without the being-there, the ability to fuse text and context into a complex whole, the music is stripped of much of its ability to communicate meaning.

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Robert Irwin's philosophies find a close parallel in Walter Benjamin's 1936 paper "The Work of Art in the Age of Mechanical Reproduction"—a seminal text that attempts to explicate the differences between a recording and a live experience. Both Irwin and Benjamin are concerned with the implications of reproduction, with the unbridgeable gap between an original and a copy, with what is sacrificed or lost during the process of duplication. Like Irwin, Benjamin writes about the fragile importance of presence: "The
situations into which the product of mechanical reproduction can be brought may not touch the actual work of art, yet the quality of its presence is always depreciated.”

Andy Hamilton begins his 2003 article "The Art of Recording and the Aesthetics of Perfection" with a helpful gloss on Benjamin's use of the term "aura”—defining it as "that numinous quality of presence which characterizes the unique, authentic artwork." His article then goes on to describe a few of the ways in which the hard-to-pin-down concept of aura has been applied to examples of recorded music in the last 75 years. Some writers, such as Benjamin himself, have claimed that the aura of a live performance can never be captured on a recording, that reproducibility eliminates the work's uniqueness and thus its aura. Others, such as Richard Taruskin, argue to the contrary: as standalone works of art, well-conceived recordings acquire a new kind of aura. (Hamilton reminds us that "the unclarity of the concept of aura contributes to these conflicting interpretations."

"The Art of Recording and the Aesthetics of Perfection" argues—contra Benjamin—that aura is not impacted by the act of recording; instead the aura is made meaningful (or not) by an act of post-recording interpretation. In this spirit, Hamilton offers two opposing aesthetic conceptions of recording, calling these approaches "perfectionist" and "imperfectionist." A perfectionist aesthetic, like Taruskin's, recognizes the recording itself as a complete work of art. Rather than conceiving of recordings as an always-flawed representation or a mere shadow of a live event, perfectionism celebrates the unique possibilities of recorded sound; Perfectionist recordings are edited, altered,

39 Ibid., 346.
and remixed in order to create an error-free performance or to artificially imbue the recording with a sense of liveness or "being there." By contrast, an imperfectionist attitude towards recording, like Benjamin's (or Irwin's), recognizes an inherent distance between the source material and its reproduction, an unbridgeable gap, and thus takes instead a more documentary-style or purist approach to recording. Imperfectionists embrace the resulting "flaws" in the finished product, finding the aesthetic value in these errors, a kind of nod to honesty.

Hamilton summarizes the differences between the two approaches by pointing out that "perfectionism tends to supports an auratic conception of art, while imperfectionism questions it." In its support of an auratic conception of art, the perfectionist viewpoint asserts that aura (or presence) is experienced everywhere, at any time, by anyone with perceptual faculties. In other words, any person who views a photograph or listens to a recording has access to the unique aura of the photograph or the recording. This experience may be (and likely is) a very different experience than viewing an original painting or listening to an unrepeatable live concert, but it is an experience that is no less real. Our hypothetical listener who cranks up Dunn's *Sky Drift* on her home stereo system may not be co-present with the musicians bouncing their sounds around the desert, but she is certainly co-present with the very real sounds bouncing around her living room. The larger question, of course, is whether or not the living room experience (or Kitchen experience) still communicates anything of Dunn's intentions, if the meaning of the artwork remains intact after undergoing the process of reproduction.

Hamilton goes on to apply the concepts of perfectionism and imperfectionism to issues of transparency, using the term "transparency" in much the same way as Glasgow.

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40 Ibid., 347.
At first blush, it may seem obvious that transparency is best achieved by an
imperfectionist approach to recording; after all, what could be more transparent than
setting up a few microphones, letting the tape roll, and then distributing the final results
as a permanent record of "what really happened"? Hamilton offers a deeper analysis,
however, asserting that a perfectionist recording—highly manipulated and edited—can
paradoxically achieve a greater sense of "being there" than a hands-off documentary
recording. He writes: "The purist [i.e. transparent] recording is not the one without
intervention, but the one where intervention is directed towards creating a realistic
auditory image."41 In this light, Hamilton's distinction makes sense; the more effort the
cartographer puts into getting the details of the map just right, the more effectively it
matches up with the territory that is being represented. As we have seen, John Luther
Adams and Karlheinz Stockhausen followed this attitude, adopting a perfectionist
approach to documenting their outdoor works. Both incorporated mixing, layering, and
other studio effects into their recordings in order to create a listening experience that
resembles a live outdoor performance in many significant ways. By contrast, the
imperfectionist *Sky Drift* recording ultimately conveys very little of the Anza-Borrego
desert to its listeners.

In a remarkable exchange during a post-performance interview with David Dunn,
*Sky Drift* vocalist Phil Keeney draws on a particularly strong imperfectionist argument,
one that even echoes Walter Benjamin's use of "ritual" to describe the importance of an
audience's being-there:

The thing I don't like is the presentation of it afterwards, you know? Like, to me,
the usefulness is doing it. And that was it, just doing it, like a ritual. You don't
constantly reprocess a ritual, it's done for the purpose of doing, and whatever

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41 Ibid., 351.
happens—whatever validity it has—is at that point. But it totally loses what happened at the point to, let's say, hear a tape or see a documentation of it six months later or a year later. To me, it was at the point of doing it is when it was valid—when any information was coming across—and that was all I could ask from it, you know? I wouldn't mess with it past that.42

Keeney questions the ultimate purpose of recording *Sky Drift* in any form, instead asserting that the "usefulness is doing it," that attending the event in person is the only way to understand it at all. Keeney's skeptical comment causes David Dunn, the interviewer, to offer a few of his own thoughts on the map/territory dialectic before offering a kind of defense of his decision to record the performance. Dunn: "A documentation or a reproduction of something is never the thing itself; so in a case like this—like, the act of recording your impressions, or the act of having recorded the piece, or photographic documentation—anything that way is, in one sense, more about what didn't happen than what did happen."43

Dunn's imperfectionist attitude is further revealed by this statement. He recognizes not only the vast distance between the documentation and the event, but additionally suggests that it may be possible to approach a recording as a kind of reverse-documentation, to listen around what the recording reveals, to learn something of the territory by noting what is left off of the map. As the interview continues, Dunn continues further down this line of thinking, testing out the idea of a recording-as-reverse-documentation: "Well, the thing that I see documentation serving to express—is just that notion of the inexpressibility of the situation."44 In response, Phil Keeney questions Dunn's entire premise:

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43 Ibid., 28.
44 Ibid., 29.
Yeah, maybe if documentation was looked on like that—which I don't think it is for the most part, you know. People take it, like, verbatim as if they come to see a documentation as if to experience the happening. And it gets valued that way, critically valued that way, and the artistic world valued that way, I think. This is what I think is happening, you know: that people, when they do see documentations of such personal things and activities—such as your piece that was in the desert—what they're basing their judgment and values on after seeing the documentation, to me, has nothing to do with what happened that day. And if they knew—that if people went into that documentation with that in mind—what they're seeing was what didn't happen, or what they heard was what didn't happen—then that would most certainly justify the piece—if people knew that. I don't think, in a lot of times—a lot of cases, it's treated that way.45

If Dunn modeled his 1979 performance/documentation after land artists like Smithson and De Maria—who presented photographs and films of their outdoor works in New York galleries just a few years earlier—he must have been surprised at just how differently his sound recordings were interpreted by the Kitchen listeners. Critics and audiences rarely conflate Smithson's highly-regarded *Spiral Jetty* film with its actual physical construction in the Great Salt Lake; indeed, the two are often discussed as separate-yet-complementary works of art, each with their own aura, history, and meaning.

Yet Dunn's *Sky Drift* recording was treated with the presumption of transparency—that what was heard in documentation was, to borrow a metaphor from Glasgow, a "window" into the sound of the performance—and critics judged the work accordingly. As the scathing reviews of the 1979 performance/documentation by Rockwell and Kivy prove, not every listener adopts such a radically imperfectionist stance as the one Dunn proposes, choosing to interpret a recording as a kind of anti-record, focusing on what is not heard or not represented. Even sensitive and experienced listeners like John Rockwell, who readily acknowledged that the map and the territory are not

coterminous, at least expect that there is more connection than disconnection between the two. In a recent interview with this author, David Dunn was asked to reflect on his earlier suggestion that documentation is somehow capable of expressing its own inexpressibility. His response was succinct and clear: "I was wrong and Phil was right!"  

The question of precisely how a performance/documentation is ultimately interpreted by critics and by audiences at large—which "conventions are invoked" when discussing the "work itself"—gets to the heart of some of the difficulties associated with the recording of outdoor music. With so many possible listening perspectives, it becomes impossible to settle on just one authoritative version of the "work." Yet instead of following the agnostic examples of Robert Irwin and Michael Heizer and refusing to distribute any documentation of his music, Dunn has spent his professional career engaging directly with these issues from a variety of angles. His decision to create, perform, and share the extravagant documentation for *Sky Drift* has left a series of philosophical quandaries in its wake; a "site-specific and moment-specific" work with so many inherently undocumentable elements is paradoxically a work that the vast majority of people will only ever experience as documentation. In the end, it is *Sky Drift*'s "unbalance"—its focus on presence and being-there at the expense of recordable sound—that continues to make it such a vexing example. When asked about his continuing fascination with the relationship between documentation and performance, Dunn replied: "I think it is inherently problematic and therefore interesting. I don't think there's a

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46 Dunn, David. Personal interview. 2 Oct. 2015.
resolution that's really possible, instead it's just different ways of focusing on the problematic nature of that relationship.\textsuperscript{47}

We have encountered a number of approaches that counteract the difficulty of documenting a performance of outdoor music, from perfectionist to imperfectionist and from the transparent to the very opaque. As Dunn points out, none of these are "resolutions" in any real sense. If there is a silver lining to be discovered in the \textit{Sky Drift} recording, which conveys so little of the depth and space of its original performance site, we might attempt to locate it somewhere inside its very flatness and space-less-ness. Despite Dunn's current recanting of his youthful stance, perhaps there is something positive to be said for a recording that so effectively asserts its independence from a live performance, that reminds us in no uncertain terms what it is and what it isn't. In contrast with a rich and detailed listening experience, perhaps the opaque recording paradoxically succeeds in pointing us towards what is missing, laying bare the audible distance between the map and the territory.

\textsuperscript{47} Ibid.
Works Cited


Dunn, David. Personal interview. 2 Oct. 2015.


Biography

D. Edward Davis (b. 1980) is a composer whose work often engages with the sounds of the environment, exploring processes, patterns, and systems inspired by nature. His work has recently been presented at Interlude at the Black Mountain College Museum + Arts Center in Asheville, NC (2016), the New Music Gathering in Baltimore (2016), the Something Said Only Once festival in Flagstaff, AZ (2015), the Brooklyn Acoustic Ecology Festival (2015), and the Under the Radar Festival in Omaha (2014).

Recent performers of Davis’s work include the Williams College Percussion Ensemble, Musica Nova (Israel), the Callithumpian Consort, Soundry Ensemble, yMusic, the Wet Ink Ensemble, violinist Mari Kimura, pianist Ingrid Lee, and flutist Dalia Chin and vocalist Kate McDuffie. His compositions are featured on the Spectropol Records compilation Possible Worlds, Vol. 2, and on recent recordings by Red Hedgehog Trio (10x10), David Thornton (Parallel Realities), Eric Honour (Phantasm: Music for Saxophone and Computer), and Erik Carlson (Music for Violin).

Davis has participated in the Bang on a Can Summer Music Festival (North Adams, MA, 2016), the New York City Electroacoustic Music Festival (NYC, 2014), the EcoSono Institute (Anchorage, AK, 2013), the nief-norf Summer Festival and Research Summit (Greenville, SC, 2012, 2013, and 2014) and the Summer Institute for Contemporary Performance Practice / SICPP (Boston, MA, 2012 and 2014), completed residencies at the Kimmel Harding Nelson Center for the Arts (Nebraska City, NE, 2015) and Ucross Foundation (Ucross, WY, 2015), and was selected as a Composer Fellow for the 2012 Other Minds Festival in San Francisco, CA.

Davis was the Director of Contemporary Music at The Perlman Music Program’s Summer Music School from 2010 to 2015. He holds degrees from Duke University, Brooklyn College, and Northwestern University, and his former teachers include Antoine Beuger, Scott Lindroth, John Supko, David Grubbs, Amnon Wolman, Amy Williams, Jay Alan Yim, and Michael Pisaro.

More information is available at http://sound.warmsilence.org