

**Surprise Me with Beauty:
The Music of Human Systems**

Also by Joseph Zitt:

BOOKS:

Shekhinah: The Presence (1992, Metatron Press)

RECORDINGS:

Solo:

Gentle Entropy (1999, DAM)

Shekhinah: The Presence (1999, DAM)

Jerusaklyn (2000, DAM)

O Come, Ye Dispassionate (2000, Metatron Press)

Collaborations (2001, Metatron Press)

With Ensembles:

Comma, (*voices*) (1997, Metatron Press)

Zitt/Matis, *Even the Widest Aardvark Outdreams the Gnu*
(1999, Metatron Press)

Gray Code, *Live in Philadelphia 2000*
(2001, Metatron Press)

Thomas Bickley and Joseph Zitt, *All Souls*
(2001, Metatron Press)

Compilations:

“mouth, midnight” on *lowercase* (2000, Bremsstrahlung)

Surprise Me with Beauty
The Music of Human Systems

JOSEPH ZITT

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FOR THE MUSICIANS, PERFORMERS, AND FRIENDS through whom these pieces were born, including (but not limited to):

The Human Systems Performance Group: Jan Barstow, Tim Bigham, Brad Butler, Bobby Corbell, Claudia Crowley, Kip Garth, Brian Green, Andrea Jacobs, Manu Jobst, Chris Kelly, Robert Kennedy, Mary Krenek, Kris Olson, Nicholas Shriber, Jana Stevens

Question Authority, the: Fran Carris, Tim Cloward, Peggy Lamb, Ric Speed, Joe Stanco, Debi Tannenbaum, Tim Wood

Empty Words: Kris Olson, Jay Rozen, John Snyder

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"I think one of the things that distinguishes music from the other arts is that music often requires other people. The performance of music is a public occasion or a social occasion. This brings it about that the performance of a piece of music can be a metaphor of society, of how we want society to be. Though we are not now living in a society which we consider good, we could make a piece of music in which we are willing to live. I don't mean that literally; I mean it metaphorically. You can think of the piece of music as a representation of a society in which you would be willing to live."

John Cage, *I-VI*, pp. 177-178
(punctuation added)

"One of the most difficult tasks men can perform, however much others may despise it, is the invention of good games. And it cannot be done by men out of touch with their instinctive values."

Carl Jung

Introduction: The Music of Human Systems

The term “human systems” has appeared in many different contexts over the years. Not knowing that the term already existed, I started using it in the early ‘90s, forming the Human Systems Performance Group. I later discovered that the term was already popular in areas of ergonomics, psychology, logistics, and sociology, among others.

I use the term to refer to the interactions of people within sets of rules or defined parameters, whether the structures were developed intentionally or unconsciously evolved. It can be applied to sports, behaviour in traffic or at parties, or, as here, in musical performance.

Scores for human systems compositions often involve quite minimal material. These scores attempt to create situations in which people are freed to do their best work, establishing systems that guide them through performance tasks, and dealing with problems that could get in their way. (These same principles hold in such other areas as designing user interfaces and conflict resolution.)

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In simpler terms, people performing these pieces work together, creating movement and sound. Each person contributes to the whole by exploring new challenges, using known talents, and developing new skills. Whether or not you have any conventional music training, you can probably perform most of these scores. (While trained performers may have a larger vocabulary of things that they know how to do, new players often contribute unexpected actions and materials that many trained performers have forgotten.)

Most of these scores are in the form of game rules, establishing materials (such as sets of sounds) and procedures for performing. These sometimes include methods for recovery if things go wrong. In general, they proceed from early pieces specifying quite specifically what is to happen to later scores with fewer and fewer rules. As in editing text, I enjoy removing elements bit by bit from specifications until I arrive at just what is needed to make the piece work. (Jon Matis provides a *reductio ad absurdum* as an epilogue to this book, as a humorous look at what might happen if you chop away too much.)

Others, such as John Zorn, have done a lot of work with game rules as musical scores (though, from what I can tell from the few of Zorn's scores that I have seen, his pieces employ a factor of combativeness and competition that I prefer not to use). These pieces have also been influenced by the work of my teachers in college (Daniel Goode, Phillip Corner, and Barbara Benary), by John Cage and his circle, by the well-known minimalist composers, by the group of composers (including Brian Eno and Gavin

Bryars) who were presented on the Obscure record label, the Deep Listening practices of Pauline Oliveros, and by the sounds of theatre and jazz-related artists such as Meredith Monk, the Art Ensemble of Chicago, Anthony Braxton, and Ornette Coleman.

The music has grown in performance, as the scores changed in the intense scrutiny of rehearsal with a wide array both of recognized musicians and of people who would not refer to themselves as such. As Meredith Monk has said of her processes, performers are the compositions' midwives, and the scores would probably have evolved quite differently if developed with different people.

As Edwin Schlossberg¹ has put it, these scores are tools, not objects. Only a few of them indicate any exact pitches to be played. Different performances of a single score probably will not share any melodic material (though they should be identifiable as the same piece because of the game rules they follow, much as you can recognize a football game when you see people playing it).

While composition (establishing rules and materials for people to follow in performance) is an intrinsically conservative act, my impulse is more liberal: where the rules conflict with the people performing them, the people, wherever possible, should win.

1. Schlossberg, Edwin. *Interactive Excellence: Defining and Developing New Standards for the Twenty-first Century*, New York: Bantane Publishing Group, 1998.

Introduction

If, in performing one of these pieces, you find conflict in working with the composed strictures, consider loosening the stricture if doing so will not lead to further conflict. If loosening the rule creates a situation with so few parameters that it becomes free improvisation, that's fine if the performers agree.

If loosening or changing a stricture creates a new situation that is markedly different from or unrecognizable as the original, you can consider it a new composition and give it a new name. If you do so, I'd be pleased if you'd mention in a program or recording note how and from where the new piece evolved, if just to let curious listeners backtrack to the sources and understand the process by which it came about (perhaps inspiring them to work with materials in the same way).

Of course, I'm not ready to let go completely of concepts such as copyright and authorship, but I recognize these mutations as the progression of methods and ideas as they pass through human minds.

Much of this music hinges on goodwill—some of the structures are fragile and depend on people being attuned to what is happening and adapting in the moment to their environment. If something happens to break the structure of the piece, it is better to assume that it was an honest event or error, and to continue working together to bring the piece back together. If that isn't possible, let the piece fail gracefully, preferably without exposing anyone as the cause of the performance breakdown.

(I am continually surprised and pleased by incidents of goodwill among people. Somehow, travelers moving in different direc-

tions through crowded train stations manage not to collide. And in one striking moment some years ago when most of the traffic lights failed throughout Dallas, I saw drivers obeying the traffic laws at intersections and, in situations where it was not clear what to do, wordlessly negotiating a careful high-speed ballet of cars without damage.)

I do not intend most of these scores to convey any predetermined emotional content. I don't feel that it is necessarily my role as a composer to determine the emotions that a performer is to portray in performing. Similarly, as a performer, I would rather not have to mimic an emotional state nor, as a listener, have one imposed upon me. Freed from such external imposition, a performer's emotion in the moment can come through in the performance, if he or she wishes it to, and the audience is free to experience whatever emotion they have at the moment, possibly (though not necessarily) inspired by the performance. People tend to find emotion (and sometimes, even narrative) in the most abstracted material, so I prefer to get out of the way and let the feelings happen.

Of course, much as many of these scores say more about interaction than about sound, the sounds that they create are also important. As John Kamman (from my ensemble SciDolomRah) puts it, learning the rule set of a piece is only the beginning of the process; once we have done that, we still have to "find the music in it".

My preference, in most cases, is for the music to be "beautiful", whatever that may mean in the appropriate context. While

Introduction

I'm interested in the abstract structural aspects of the pieces, I still am interested in doing music that people can *like*. Ideally, the sounds should be accessible and enjoyable without knowledge of how they were produced.

A clear sign that we haven't connected is when people tell us "That was... umm... interesting". In a sense, while the pieces are not designed to impose specific emotion, we hope that the audience does have an emotional experience, and a positive one at that.

And my favorite reaction is when people tell us that they want to learn how to do what we do. We eagerly teach people the basics of what we do and distribute our scores. (As I write this, I'm on my way to Texas for a series of performances, in each of which we hope to include people from the communities in our pieces.) I've compiled this book so that people can easily get at the collection of scores, to perform these pieces and to be inspired to create their own.

In a sense, this book is like a cookbook for performance. I have tried to maintain a consistent structure for the scores (considering, however, that they range over more than twenty years and a variety of methods and materials) with general notes about performance and materials preceding the rulesets for how the pieces begin, continue, and end. Additional notes about the context and evolution of the pieces appear as footnotes on the first page of their scores.

This book was designed, most importantly, to be used. Wherever possible, two-page scores, or pages of longer scores which

should be viewed together in rehearsal, appear on facing pages. I've tried to keep page breaks from disrupting the flow of text.

Since, for the purposes of this book, usability trumps historicity, I've tweaked most of the scores in various ways, mostly for clarity. Our goal is that both conventional musicians and people who do not consider themselves musicians should be able to understand and use the materials in it. The earlier versions of the scores still exist, though, in my archives (as of this writing, a wall of cardboard boxes in my garage).

As with my earlier book, *Shekhinah: the Presence* (also from Metatron Press), much of this text was edited by Claudia Crowley, an exceptional and exacting editor who doesn't let me get away with anything. The page design is modeled after the design championed by Jan Tschichold in his *The Form of the Book: Essays on the Morality of Good Design*. The fonts (for those who are interested) are Times New Roman, Arial, and Courier. This first edition of the book, at least, is being printed via a print-on-demand system by Lightning Source.

The images on the front cover are from the dance/theatre piece *Shekhinah: The Presence*, performed by the Human Systems Performance Group in 1992 (although, paradoxically, none of the scores for that show are in this book, since the music was created directly to tape). I have, however, lost track of who photographed them. The cover design was developed with Brian Fending. (You can find more of Brian's design work at <http://www.brianfending.com>)

Introduction

Early versions of the scores were written in plain text form, Microsoft Word, and LaTeX. This book was put together in Adobe Framemaker (under Linux and Windows 98).

The name of this book came from a conversation with electronic composer Gilmore (of, among other things, the group `t_spigot`). When I asked him what he enjoyed in the music of Aphex Twin, he replied “He surprises me with beauty”. I have appropriated his statement as a title, with his permission, since I recognized that as also being the goal of much of my own work.

Writings and Interviews

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I find that I often get my best ideas when inspired by reading what other composers have said about their music. Others prefer to skip over any prosaic information about the music that they enjoy. Ideally, the music should speak for itself, but commentary on the side can be a good thing.

Most of the writing I've done about this music has been in email among the music's performers, little of which adapts well to print publication. But these pieces, I think, work in print.

The first piece (which appeared in an early form in an article in 1996) and the last (derived from an online conversation later that year), lay out some of what lies behind the compositions that follow them.

The center piece describes some of the mathematical methods I've used in my music over the years. It may only be of interest to those of us who find math fun, but others might enjoy it too.

Principles of Human Systems Composing

These principles provide an ideal set of parameters for Human Systems pieces. I doubt, however, that any single piece of mine has fulfilled all of these criteria.

Is the Music Clear? The score describes and explains the materials and processes that are used in the piece and defines unusual terms.²

-
2. Jargon and specialized notation can be useful: among members of a profession or other groups of people, they enable efficient communication of information that would otherwise take much more effort to describe. They can also serve as a bond among the people who share the vocabularies.

However, I have tried to avoid musical jargon and notation in these scores, so that people without conventional musical training can learn and perform them.

Principles of Human Systems Composing

Is it Enjoyable? The piece is fun for the performers and for the audience.³

Is it Performable? Performers of the piece do not have to be virtuosi. Each piece benefits from skillful performance, but anyone who understands how the piece works can perform it.

Is it Accessible? While knowing how a piece works enhances a person's enjoyment of it, an audience with no knowledge of the piece can also enjoy it.

3. As arcane as some of this material might seem, I still find it important to create music that people *like*. While this is harder outside of the areas of popular music with which people are familiar, they still can enjoy other musics if performed and presented effectively. In *Question Authority, the*, this spread into broad comedy as part of the performances (though always within the constraints of the scores that we performed); in *Gray Code* this has developed within the pursuit of surprise (some, though not all, of it comedic) and unusual beauty.

Is it Memorable? Performers can remember the piece easily. Processes are simple and consistent. Texts are brief. If the piece requires an aid to memory, such as a printed handout, the performance intentionally includes its distribution, use, and collection.⁴

4. I am continually amazed by some people's ability to memorize long musical scores or performance scripts. It's not one of my strengths. Thus, most of my scores are constructed, in a sense, as "state machines": at any point, you can tell where you are in a piece by listening to the sounds around you, and can tell from that information what you may do next.

The emphasis on incorporating the handling of printed materials was more important in *Question Authority, the*, where we moved around a lot, than in the later, more "musical" ensembles, where music stands suffice. (Though I find that that printing the score in large print and putting it on the floor works even better when we only have to glance at the floor occasionally.)

Principles of Human Systems Composing

Is it Identifiable? Someone familiar with the pieces can tell which piece is being performed by hearing a small part of it.⁵

Is it Variable? Performances of the piece can vary widely, spontaneously developing elements that surprise the audience and performers.

-
5. Since I've started listening to partially improvised or indeterminate music, I've been curious about how a piece maintains its identity. While, say, traditional jazz pieces maintain somewhat of an identity through recurring harmonic structures, I find it hard to tell which Ornette Coleman piece I'm hearing if I tune into it mid-stream, unless I'm already familiar with the recording. Different recordings of "Lonely Woman" in the area between the head and its recapitulation at the end seem, to my ears, to share only tenuous melodic relationships; it's quite possible that a performance of "Lonely Woman" and a performance of "Peace" might have more in common than a pair of performances of either one. Similarly, it would be hard to tell by listening that one was hearing a performance of John Cage's "Variations II" or "Theater Piece".

Stephen Drury mentions in his liner notes to the Mode recording of Cage's "Two⁴ for violin and piano or sho" (Mode 88) that this issue of musical identity also became "one of Cage's preoccupations in his later years".

Is it Recoverable? If a performer accidentally departs from the score, a performance of the piece can survive and continue, incorporating the accidental material as if it were intentional.⁶

6. I enjoy Frederic Rzewski's instruction in his score *Les Moutons de Panurge*: "If you get lost, stay lost". However, I prefer that people be able to find their way back in to where they should be. In some of the later scores, I've included guidelines for how to proceed if people in a performance disagree on where they are in the score. The most important factors in recovering from errors are trusting in the good intentions of all parties, believing that errors were due to the humanity of the performer rather than sabotage, and cooperating with the performer to pull the performance seamlessly back together.

Principles of Human Systems Composing

Is it Multi-faceted? The piece incorporates syllables, words or word-like sounds, rhythm, structure, dynamics, gesture, movement, and the handling of the performance space and timing as aspects of a whole, each element complementing the others.⁷

Is it Portable? The piece requires little, if any, equipment or props. The performers can launch into any piece easily without the need for setup⁸.

7. This was also more important in *Question Authority, the* than in the later ensembles, though I would like to return to working in ways that incorporate physical gestures, movement, and the use of space.

8. I have been in bands that have spent much more time setting up and breaking down equipment than in actual performing. This has often focused the musicians' attention less on the sounds than on the gear.

**Is it Open to
Silence?**

At any point, a performer may silently listen to what the others are doing, then reenter the piece.⁹

-
9. Performing silence (or, as Robert Fripp has put it, “contributing attention”) can be as important and effective as performing sound. (Otherwise, in improvisations, everyone tends to play all the time.) If silence is permitted, you are free to ask yourself whether the next sound that you are about to make would enhance the other sounds being made or if it would only crowd them. If it would not improve the soundscape, you are free to refrain from sounding until the situation changes or you are again inspired to sound.

This discipline is difficult to achieve. In listening back to recordings of my performances, I usually find at least one instance in which I should have remained silent than sounding.

Performing silence is also very different from just stopping: you need to continue to maintain the same degree and quality of attention when performing silence that you do when sounding. Gray Code performances often include moments of total silence. The audience, however, can usually tell that the piece is continuing, and continue to contribute the same quality of listening that they do when we are sounding.

The silent moments are among my favorites in performance, especially those in which we develop the consensus that a performance is, indeed, over, and make the transition in attention that signals the completion of a performance.

On Gray Code and Other Algorithms

In 1979 or so, John Cowan taught me about Gray code algorithms. They have shown up in my music ever since, and provide the name (as suggested by Tom Bickley) for one of my current ensembles.

Though versions of the code were used earlier (in such classic math puzzles as the Chinese Rings and the Tower of Hanoi), it got its name when Frank Gray of Bell Laboratories patented its use for “pulse code communications” in 1953. The version that I have used is more specifically called “binary-reflected Gray code”.

The code shows a way to arrange all the possible combinations of the members of a group of items (from a set with no members up to a set of all of them) and order them so that, for each combination in the list, you only have to add or remove one item to get the combination that follows it.

On Gray Code and Other Algorithms

The simplest case of this is for a list with combinations of a single item (I know that's ridiculous, but it helps to see it as a basis for the larger cases.):

```
0: .  
1: 1  
(0: .)
```

where

- each combination appears in its own numbered line
- a dot (“.”) represent an item that is not in that combination
- a digit represents an item that is in the combination
- the list begins with combination 0, which contains no items
- combination 0 appears again at the end of the list, since the process should loop around from the end to the beginning.

Here, the single item changes between the two combinations, included in one but not the other.

On Gray Code and Other Algorithms

The arrangement for two items is twice as long (since the number of possible combinations of a group of items doubles for each added item):

```
0: ..  
1: 1.  
2: 12  
3: .2  
(0: ..)
```

In this arrangement, we see that:

- The first half of the arrangement for this group is the same as the arrangement for the group with one item fewer.
- The second half of the arrangement includes the items in the first half in reverse order, with the newest item added to each combination.

On Gray Code and Other Algorithms

With the arrangement for three items, we see that these features again are true:

```
0: ...
1: 1..
2: 12.
3: .2.
4: .23
5: 123
6: 1.3
7: ..3
0: ...
```

Since each step of the Gray code ordering differs from the steps before and after it by a single item, it can be used effectively to order combinations of players in an ensemble performance. Each item begins and ends with one person beginning or ending:

```
          (1)   (2)   (3)
0: ... |
1: 1.. | begin
2: 12. |      begin
3: .2. | end
4: .23 |          begin
5: 123 | begin
6: 1.3 |      end
7: ..3 | end
(0: ...) |          end
```

On Gray Code and Other Algorithms

In this structure, the different players have different numbers of entrances and exits (with the first player having the most and the last player having the fewest). A guest musician joining us in performing the structure usually performs as the last player. In that role, the guest has to remember very little about the structure, entering when the last other person to have entered is playing a solo and ending after the guest plays alone. We also tend to assign the other roles in relation to how we are set up, so that the parts go in order from stage right to stage left or from stage left to stage right.

Figuring out the orderings for larger groupings (using, for each, the arrangement for the next smaller set, first forward then in reverse with the newest item added) is quite easy. In practice, however, we almost always use printed guides (such as the one for “Gray Code for Five” on page 336) to keep us from getting lost. And, as always, if we do get lost (as happened in one performance when, segueing into the structure from another piece, we got confused as to who was starting the process and in which way the orderings were going), we work it out, ideally avoiding conflict or disruption.

On Gray Code and Other Algorithms

Once we had established how to move through the combinations with the fewest people starting or stopping at each change, I began to wonder how the combinations could be arranged with the most changes between combinations. Research on this proved less fruitful (probably because the answer would have few useful applications).

A chance meeting with mathematician Joe Noakes on New Year's Eve 2000 in Austin led us to discuss possible answers. Joe quickly spotted an important bit of information: Each combination adjoins two others, one before it and the one after it. Of those two, one would be the exact opposite of that one (that is, all items that would appear in the current combination would not appear in the other, and vice versa, so that, for example, "12." would adjoin ". . 3"). In the other, since each combination would have only a single exact opposite, one item in the combination would have to remain the same while the others would change (so that the other item to adjoin "12 ." would be one of "1 . 3", ". 23", or ". . .").

This led to many possible outcomes, and to my writing several computer programs to try to work out the best answer by the brute force method of trying and comparing all the possibilities.

On Gray Code and Other Algorithms

Through a series of emails, however, Joe and I worked out the solution (which we had glimpsed but missed on New Year's Eve, perhaps a consequence of mixing calculation and celebration): to create the AntiGray arrangement of a group of items, follow each combination of the Gray code arrangement for the next smaller group with its exact opposite.¹⁰

10. Mathematician and artist Steve Whealton tells me that the Anti-Gray arrangement had, of course, been discovered and documented before we independently figured it out. His Web site, <http://washingtonart.net/whealton/s.html>, contains excellent information and images related to the Gray code and other mathematics in art.

On Gray Code and Other Algorithms

For example, the grouping for three items consists of the Gray code grouping for two items:

```
0: ..
1: 1.
2: 12
3: .2
```

intertwined with their opposites (including, in each opposite, the new item from the larger grouping)

```

                (1)  (2)  (3)
0: .. |
1: 123 | begin begin begin
2: 1.  |          end  end
3: .23 |  end  begin begin
4: 12  | begin          end
5: ..3 |  end  end  begin
6: .2  |          begin  end
7: 1.3 | begin  end  begin
(0: ...) |  end          end
```

On Gray Code and Other Algorithms

As you might expect, the AntiGray structure (as shown in “AntiGray for Five” on page 340) has proven more difficult to perform than Gray code, since it involves a large number of simultaneous changes. To minimize the confusion, we have developed the practice that any person who is to enter as part of a change may start the change by doing so, and all the others who are to enter or exit do so as quickly as possible when that happens. Everyone generally reacts quickly enough that the change appears simultaneous. This handles all cases except the transition between steps 1 and 2, in which all the performers but one drop out. In that case, when any player that is to stop does so, the others also stop immediately.

As often happens, though, the intricate mathematical workings-out of the system have led to simpler methods that have much the same effect. “Disjoinder” on page 364 evolved as a way to shift among groupings of players such that there were frequent abrupt changes of performers, carefully running through the many situations that could arise. And “Tapas” on page 367 distilled the idea even further, into a form that could easily be communicated to the performers and audience. While it doesn’t document and deal with everything that can happen, the simple rule set and trust in the performers to work within it appropriately have led to good results.

A Conversation on ArtsWire

NEWMUSNET Item 209 "A Conversation with Joseph Zitt"

The following online conversation took place in October 1996 on the NEWMUSNET forum on the ArtsWire conferencing system (with whose permission it is reproduced). With the consent of the other participants, I have edited it down considerably.

Douglas Cohen

07-OCT-96

I'd like to welcome Joseph Zitt to the NewMusNet Conference of Arts Wire. He will be here for the next few weeks to discuss his musical work, both online and off.

Joseph Zitt is a composer/performer/poet living in Dallas, Texas. His scores are often poetic instructions to sound making actions. He founded the sound poetry ensemble Question Authority, the and started the Internet mailing list, The SILENCE List, which is dedicated to discussing the life and music of John Cage.

Pauline Oliveros

07-Oct-96

Could you talk a bit about how you feel about composing - being a composer at this particular time? Counting resources and working from there seems an important approach. What would you like to do if time and money were no object?

Joseph Zitt

08-OCT-96, 2:33

How I feel about composing?

Currently, I compose either to create a sound that I want to hear or to try out a mode of interaction between people. I don't consciously use it for self-expression—though I find myself expressing emotion (often far more than I intend) when performing within these compositions.

In composing, I try to create situations in which people, working together, have enough space for each to be able to do what s/he does best, while complementing and, where appropriate, interacting with others. In my recent work, I've been including options for movement as well as for sound; when the works are performed, some people remain motionless and contribute sound, some move silently, and some combine sound and movement.

In the corner of my ears, the Spirits of Therapists Past are whispering, "Yes, but how do you **feel** about it?" Hmm... certainly excitement and pleasure when a piece comes together, and an almost manic drive when an idea is trying to hatch. I have a few projects, in different arts, that I feel I eventually **must** do, though, in almost all the cases, I can't justify why those particular projects possess me. And, in the face of often deafening self-doubt, there's the occasional flash of a feeling that the work I'm doing is what I was meant to do (in a kinda agnostic sense).

A composer friend in private email yesterday pointed out how many of us have religious training or backgrounds that show

through in our work, even though we may not be conventionally religious anymore. It's perhaps these conceptual vocabularies, and the need to make those kinds of connections in ourselves and with others, that drive us to compose and create.

How does it feel being a composer at this particular time? It's an interesting period, to be sure: with funding collapsing all over, a certain frugality is needed in creating work. This builds limits into projects, unless one is willing to devote time and energy to things that will never be performed.

(On the other hand, I've never tried very hard to get grants. When I was starting to apply, some years ago, a friend who had a struggling rock band asked why I should be able to apply for them, having a sort of new-music ensemble, while he, working strictly within rock and roll, was locked into battles of the marketplace. I didn't have a good answer, and, being strikingly inept myself at handling money or paperwork, decided to do my work without financial assistance. I've never come up with a cogent reply—though I certainly wouldn't complain if I were to somehow get funding for my work in the arts.)

Those of us outside the conventional classical world who are getting heard and seen are doing so by putting together our own groups, creating our own shows, and getting the word out. Here in Dallas, we're sneaking in underneath the radar: by positioning ourselves as a sound-poetry ensemble, *Question Authority*, *the* has managed to bypass the musical rat race entirely and be presented as part of the poetry scene. Another active group here, *comatheatre*, is presented as more of a theatrical thing than a

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musical one, although music is at the center of what they do. QAnT and comatheatre have appeared as guests at each other's performances. Another local group, 700 nm, have helped with our shows, and coordinated performances involving multiple simultaneous performances in intriguing settings.

With recordings booming, more sounds than ever before are available to everyone's ears to learn (or steal) from. I've built up a pretty large record and CD collection, mostly as references so I can hear what's gone before me and take off from there.

With CD creation dropping in price, and Net technologies getting better by the moment, there are also more ways to distribute music than ever before. That people here are able to click on a link and hear a piece of music over the Web would have been a fantasy 10 years ago, but it now is almost taken for granted. The possibility of making a CD-ROM of the piece I'm currently creating, marketing it by grass-roots and Net-based methods, and not losing my shirt is within reach.

I've also been able to learn more about music, and interact with other musicians, over the Web than would have been possible ever before. With such resources as the Tuesday night New Music Chat, the Collaborative Music and Computer Mailing lists, and the Deep Listening, Frog Peak, and Merce Cunningham web sites, we have access to works of and interactions with other contemporary composers as never before.

If I had infinite time and money? I've never really let myself think about that. One of my dreams is to create a space in which performance could always be happening, which people could

enter at any time to perform or to listen. What happened in the space would be broadcast around the clock on a cable station or the Net, and it might show broadcasts on its walls from other similar spaces around the world.

I would also like to work with very large groups of people. Last Friday night we premiered a piece of mine in Denton, "Library Music"¹¹, that I had first written almost 20 years ago but hadn't been able to perform until now. In it, people began in one place, spread out around the inside of the building, and individually performed actions according to a grid of possibilities, then recombined in a common space. The piece worked well, I think, with the eight people performing it, but I envision doing it with perhaps a hundred people, distributed around a huge building (such as the Strand bookstore in New York or the Dizengoff Center in Tel Aviv).

I'd also like to be able to do very large theatrical concerts, of the scale of Peter Gabriel's Secret World Tour or U2's Zoo TV.

...but on the other hand, I might be happy enough if I just had the chance to be Brian Eno for a while... :-)

Pauline Oliveros

08-OCT-96, 13:26

Thanks Joseph for your thoughtful answers to my questions. I like the ideas you expressed for doing large works with lots of

11. "Library Music (incorporating Karnaugh Knowledge)" on page 71.

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people. Dream some more! These seem to be community building works which are needed now more than ever. I think it's good to slip music projects into the poetry scene. It helps to have one art illuminate another and builds new audiences.

I am teaching a composition seminar at Mills College this semester. There are 16 composers - all levels from beginning to professional and all different styles. One of the questions we are exploring is "What's the difference between improvisation and composition?" Would you care to take a crack at that question?

Joseph Zitt

09-OCT-96, 0:22

I love improvisation. In a perfect world, when people came together to play, everything would work right: everyone would leave space for others to play (in terms of both time and room in the audio spectrum), and the flow of materials among players would move effortlessly within the sound. This is also as it would be in a perfect society, where everyone would be able to pursue his/her personal goals while interacting with an eye to the equal happiness of others.

Unfortunately, we haven't reached that stage yet (if it is ever achievable). Quite often, when people are trying to play together, they will drown each other out, stomp on each other's spectrum, and interfere, consciously or not, with the flow of the music.

This is where one of the roles of composition comes in. In trying to achieve a better balance in the group, one or more members may suggest parameters within which the players would

improvise, allocating or defining available and declined materials harmonically, rhythmically, timbrally, or in other ways.

We found, for example, that many of the looser pieces that *Question Authority*, *the* did turned into walls of sound where everyone was doing the same thing all at once. It got difficult for the audience to sort out what was happening.

In listening to Ornette Coleman's *Beauty is a Rare Thing*, it hit me that part of the problem was that we were all stomping on each others' sounds, rather than establishing strata in which each of us could work. In thinking of ways to create distinct threads, I came up with the score to *Change Rings*¹².

That didn't involve much in the way of composition, but did the trick; we ended up doing sufficiently different things, and handing them back and forth cleanly enough, that it's developed into one of our favorite and more accessible pieces. In fact, once we got it down, we were able to loosen some of the strictures again—instead of working from lists of materials, it now (d)evolved into the simple (never stated) rule: "Do something different than what anyone else is doing, in a way that goes with what else is happening; to take over an item, request it from the other person." That turns out to be all the composition that that situation now needs.

[This way of working] gets into areas of what the composer is willing to accept as valid performances of a piece. There are times when I've had to go "Well, uh, yeah, the score doesn't

12. "Change Rings" on page 144

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explicitly say you couldn't do that..."—but then I go and tweak the score to be more clear, or use what I've learned in writing my next piece¹³. As it happens, I'm continually generating new pieces for the ensemble that sort of consume older works; it's like I'm doing successive approximations of a meta-work that probably never actually be realized (or if it is, the stars will start to wink out :-])

Of course, composition is also necessary when you are trying to generate sounds that require more than one person to produce them. The sound of a melody played by a bass clarinet while sung by a soprano, for example, is hard to duplicate in any other way. To get it to happen, someone has to ask the two performers to produce these particular sounds at the same time.¹⁴

For this to happen, the musicians need, of course, to have some reason to do so—either that they trust the composer to give them material that pleases them in some way, or that they are trading off performing each others' scores, or (least optimally, but most commonly) that they are getting paid.

Viewed another way, improvisation and composition are not opposites to be differentiated, but complementary elements resulting in a performance.

On the one hand, it's almost impossible to compose something so that you know exactly what the listener will hear. Even

13. Tom Bickley has dubbed this continual refinement of scores based on others' suggestions "backseat composing".

14. I think I cribbed this idea from an interview with Brian Eno.

for a piece created directly to tape and played in a concert hall to a captive audience, what you hear will be affected, if only minutely, by factors as unpredictable as the fabrics that the audience is wearing or, in a similar instance, the type of headphones that a person is using in listening to a CD of it.

On the other, even in a situation of supposed total improvisation, there are pre-existing conditions that affect what can be heard—you can be pretty sure that, whatever happens, you won't hear the sound of a piano crashing to the ground from a great height unless someone has, before the concert, hoisted the piano above the stage (or remembered to bring the disc with a sample of a previous performance where they had done that.) Even in putting together an unrehearsed jam with most musicians, odds are that the common vocabularies that they share, even if they haven't discussed what they are to do, will probably lead to much of the performance hewing closely to one of a fairly small number of possibilities.

Does that count as a start at a reply?

Douglas Cohen

12-OCT-96, 16:08

Do you see any downsides to the rapid development of these technologies and how they impact artists like yourself?

Joseph Zitt

13-OCT-96, 2:51

One of the reasons that I got involved with a strictly vocal ensemble was that it involved no technology of any kind, other than that of our bodies. Little techno-bits keep sneaking in, though, and the recent performance at the University of Texas at Dallas ended up including computer-generated sound and video, overhead projectors, video projectors, a stereo system, several boomboxes, and an obscurely designed lighting system. Our dress rehearsal was taken up with wiring things together, and the performance was almost delayed by a faulty video cable. As repairs and debugging frantically proceeded, those of us who weren't panicking wandered the space repeatedly muttering "Zero tech!"

The next two performances went considerably better; the one two Thursdays ago was at a rock club, but we didn't even use the microphones, except during a string of solos. (One neat, unexpected, and somewhat silly effect: there was a fog machine onstage that we couldn't turn off. When we did the solos, the people at the mic were visible, while those standing in a line behind them were obscured by the mist. Very Spinal Tap.)

For the Friday performance, we also were unmiked, and, since the other acts that were performing simultaneously were as loud as possible, we quickly moved out of the space and into the parking lot, continuing our set there (where audience members had also gone to escape the walls of sound). If we had been tied down to instruments or props this might not have been as possible, and we would have been stuck doing mime.

(At the one event that we did that the the local newspaper's reviewer covered, we were stuck being practically inaudible, and resorted to more blatant moving around the space. As most of us are not as good at movement as we are at sound (though we have some wonderful movement people among us), the reviewer reported, somewhat too accurately, that we resembled "the closing ceremony at a two week Marcel Marceau summer camp"!)

I wish I knew of a good way to approach another musician who is blasting away and ask him to turn down so that the rest of us could be heard. Most of them had designed pieces based on being loud, and to get them quieter would have lessened their effect, but it wasn't fair to the rest of us. I think I may suggest to the organiser (Sean Donovan, an SMU undergrad who's doing a dynamite job of pulling these evenings together) that his invitations to the performances include a recommendation to create music with more space.

I brought this up on the Collaborative Music list a while back, and got some good responses. Does any here have any suggestions as to how to tune a collaboration in real time to get things to get together better without anyone feeling like their artistic freedom is getting stomped?

Douglas Cohen

13-OCT-96, 9:58

I like your no-tech philosophy for your ensemble, but it's also interesting to see how technology creep is difficult to avoid.

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To turn your question about collaboration around, how can we collaborate and use these technological advances for the good of society as a whole rather than for personal gain at the expense of others?

Pauline Oliveros

13-OCT-96, 14:33

Ethics of technology - This is a subject for some consideration. How do we use power so that it is a plus (for everyone) rather than a minus (for some)?

Joseph Zitt

14-OCT-96, 0:26

The word "power" is interestingly ambiguous here—it could mean either or both of electric power or power over others. In this case, both were true—those who could plug in had the ability to drown out others.

Ideally, looking at the ethics of it, everyone in a situation would have access to the same technology, and would use it well. In this case, we all could have plugged in had we chosen to use instruments or amplification that called for it. One could look at the situation in (at least) two ways:

- that those who chose amplification had a responsibility to moderate what they were doing so that others could be heard, or
- that those who were more quiet should have known what they were getting into and known that they were going to be unheard, and that being driven out of the performance space into the parking lot was the natural result of their choices.

This seems like a basic difference in worldviews, the first choice showing the more liberal view and the latter showing more of the "marketplace/jungle" attitude. (From which description you can probably deduce that I'm a proud longtime diehard card-carrying liberal.)

A lot of my sense of technological ethics comes from the early history of the Net (not so much the bombast that pervades much of the Net today). A lot of what I do is derived from what is and was freely available to all out here. Most of the programming tools and languages that I use, as well as many of the source texts, were placed on the Net by others as a public resource. In turn, I have no problem with placing tools that I have developed using these products and program/scores that are built from them into play for others to use in further development.

Much of this belief and way of working is embodied in the work of the Free Software Foundation's GNU General Public License. In brief (and perhaps oversimplifying it), I have the right to copy, adapt, and modify any software released under this

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license as long as I acknowledge the sources of the code on which it was based, make the new source code freely available, and pass these same liberties and restrictions on to others with respect to my code.

The Net and the world of computing as it exists today (and its reach into everything else we do) would not be nearly as advanced had people not shared their knowledge and resources. We now have an ethical responsibility to do the same.

In a similar vein, I have given workshops in Sound Poetry, teaching people some of the pieces which we do. I don't have a problem with other people forming similar performance groups—in fact, there are possibilities of similar ensembles spinning off in Austin and Fort Worth. I would hope, however, that rather than going into competition for gigs and venues, we might form a network to share our knowledge and resources.

When people become interested in our work, I also try to turn them on to the music from which we derive what we do. Without your recordings and writings, as well as that of (for various members of the group) John Cage, Kurt Schwitters, Barbara Benary, Allen Ginsberg, Jackson Mac Low, Kirk Nurock, Meredith Monk, and a host of others, we wouldn't have been able to even think of our current work. I'm continually making off-the-cuff mixtapes and bibliographies for people to go to the sources; some of us are also (as I may have mentioned earlier) considering a separate ensemble or concert series doing the avant-garde classics (as it were) to show people our roots.

Part of this feeling, by the way, may come from my early religious training. In the Talmud and similar texts, statements are often preceded by conceptual genealogies showing who quoted whom quoting whom in saying it. Most of the legal items show a complex and often convoluted chain of reasoning with all the steps, tangents, and references laid out.

There's a lot of good to be had from the new technologies we have now, in terms of the almost instantaneous spread of information and propagation of skills. But each of these benefits has a flipside as the same technologies are used to spread lies, hatred, and the tools of oppression. The best way I know of to get them to be used for good causes is to do so ourselves and to act as examples for others.

On another note, a thought about computer music and similar work hit me at about 4 AM.

I recently read (and greatly enjoyed) the transcript of Jim Rosenberg's residency on the Interactive Arts conference here. In that transcript, as elsewhere, he talks about how he builds up his work from words and phrases:

I use what composers call "precomposition". That is, the piece is composed in layers of activity, and each but the final layer affects the entirety of the finished piece. I maintain what I call "reservoirs" (Jackson Mac Low calls them "vocabularies") which are precompositional groupings of phrases. At each step I take the existing genera-

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tion of reservoir, chop it up, permute it using chance operations, and use the resulting "prompt sheet" to write—by hand, so to speak—the next-layer reservoir. [...] Composition of the words has normally taken about 85% of the elapsed time of making the work.

This has a lot of similarity (as he mentions) with the work that some composers currently do in putting a piece together.

It strikes me (perhaps due to a sense of earlier music history that is blurrier than it could be) that this process/phenomenon only began in the past century or so. I don't get the feeling that earlier composers and writers started at such a granular level in creating their work.

Is this due to the lack of an agreed common language from which to work? When everyone was using tonality, and only pushing it a little each generation, when one sat down to compose a lot of the decision making had already been done. It was only when composers decided that tonality had stretched to breaking and completely other methods of managing pitches were needed that Schoenberg et al started charting their tone rows and the resulting inversions and retrogrades and all that as a precursor to composition.

Similarly, once any sound was accepted in music, a certain amount of pre-design had to be done in defining the ensembles of sound producing devices for a given piece before it could be composed (though I suppose the model would shift as issues came up in the process of composition). And for the computer composi-

tion and other digital processing, we have essentially broken the building blocks down into grains of $1/44100$ th of a second to be recombined appropriately into other sounds.

It's interesting, too, how a set of tools, once built, could generate several different pieces. A section of the book *MUSICAGE* shows the process that John Cage used to create a version of *Ryoanji* with cellist Michael Bach. The same process generated different versions of the piece for other ensembles and instruments.

Cage also used Jim Rosenberg's *Mesostics* programs to create a variety of works, and later used program output created by Andrew Culver in creating the *Number Pieces* and related works. Still, the *Number Pieces*, like the *Ten Thousand Things* series before them, had a great variety in Cage's use of the tools. I wonder if much research has gone on into the differences between these pieces and what influenced those choices not built into the program.

A similar granularization (?) of language has also gone on in the work of, for example, the *L=A=N=G=U=A=G=E* poets. With syntax and shared meaning no longer necessarily a given, some poets feel freed (and some feel forced) to atomize things to the level of bare words and letters and start again.

And I suppose the same thing has happened in other arts too (visual arts, for sure; I'm not as familiar with dance and theater) in this century. Interesting times...

Joseph Zitt

22-OCT-96, 2:23

[S]omething struck me in discussing my ensemble work with my mother (who is an elementary school music teacher) last Saturday afternoon:

In a sense, the zero tech ensemble work relates to the traditional Jewish concept of the Sabbath: by choosing not to involve ourselves, for a set period of time, with technologies or instruments other than our own bodies and our texts and the occasional simple objects that we happen to have at hand, we are freed to concentrate on the capabilities inherent in ourselves and in our interactions with the others in the group. We work with our own possibilities and limitations in creating the sounds and actions that make up our performances and rehearsals.

Of course, we can and do choose to actively use the outside technologies in our work outside of the actual performance/rehearsal work, but for these special bubbles of time, we agree to focus ourselves by limiting our tools.

(...and it's interesting how the work keeps looping back, for many of us, to our religious upbringings and spiritual work, even though most of us don't consider ourselves religious...)

Douglas Cohen

22-OCT-96, 11:40

That is a good point which you make about spiritual upbringing. It is something which is a strong influence in most all art yet it is rarely discussed. Stephen Mosko has pointed out, and I agree

with his view, that a large part of the difference between John Cage and Morton Feldman in their musical aesthetic comes down to the one coming from a Protestant background and the other Jewish, yet neither was religious (and both shared similar interests in science, art and philosophy).

Joseph Zitt

27-OCT-96, 19:22

Stephen Mosko's statement about Cage and Feldman rings true. I've a feeling that Cage's hacking away at admittedly tedious processes that took a very long time to generate a result owes something to the so-called "Protestant work ethic" (the best exemplar of which I've known, however, was my very Jewish grandfather).

I'm not sure what in Feldman's music I'd pin down to a Jewish influence, other than, for example, the synagogue melody that crops up in Rothko Chapel. There is one process that he uses, however, that may point back to the synagogue: the way, in some pieces, multiple performers work from the same score and gradually get out of sync. This is one of the sounds I've enjoyed in prayers: often people start out together, then drop in volume and go at their own speed, joining up again when all have reached the end.

Similarly, the use of repetitions and abrupt changes in Feldman's later music ties into an aspect of Jewish nervousness and humour: the idea that you can never let yourself get too comfortable in a situation, since things can change radically at any time. I would frequently hear as a child (though I'm not sure from whom,

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exactly—it was just sort of in the air) that it was just in situations where the Jews were getting comfortable that you would have to be most aware of the possibility of a pogrom or its equivalent blowing through town.

Some of the musical gestures in Feldman's work may echo the "sigh in the voice" of cantorial music, and touch on traditional tonalities. (I wonder, if he were still alive, if Feldman would be creating work for John Zorn's wonderful "Radical Jewish Culture" project...)

That's it for now...

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The earliest scores here come from my years in college (1976-1981). After an attempt to study to become a cantor, I found myself at Rutgers University's Livingston College (back when it was ground zero for rebellion and experimentation; I got out before they turned it into a business school). Once there, I got to study with Daniel Goode, Barbara Benary, and Phillip Corner, all

Early Scores

avant garde composers with a grounding in traditional world musics.

Reading Michael Nyman's book, *Experimental Music: Cage and Beyond*, exposed me to the idea of compositions as processes, rather than finished objects. With the encouragement of my teachers, I was able to pursue these interests (though it is only now, some twenty years later, that I am beginning to understand some of the depths of what they taught me).

I also started to incorporate my strong interest in recreational mathematics in my composing. My best friend in those years, John Cowan, turned me onto Gray Code, which I've continued to use in composing throughout the years.

After leaving college, I mostly composed fully-notated or tape works, outside the scope of this book. (Many of the tape works are available on my CDs on the DAM label, available online, as of this writing, from mp3.com.)

I moved around for awhile, living in Brooklyn in most of the '80s, then moving to Austin in 1989. Once there, I focused less on music than on poetry, programming, and performance art. The last two pieces in this section are as much about movement as about music, but (like "Sight Music-I", which is performed over a stretch of time by graphic artists) use the same kinds of ideas and methods that I use in many of the scores in this book.

Sight Music-I (Whistler Down the Light)

for several graphic artists

Have one artist (or non-artist) draw a non-directive abstract black and white picture. Photocopy the picture (preferably on a copier that is not working properly). Ask a second person to trace the picture from the copy onto a piece of tracing paper, restoring any lines that may have dropped out in the copying process. Do not let the second person see the original.

Photocopy the new tracing on the same machine. Have a third person trace the drawing in the same manner.

Continue this process of copying and tracing with as many “artists” as you can find. When the group is finished, have the first artist do a tracing from the final photocopy, not thinking of or looking at the original drawing.

Line up the tracings on a wall.

1978?

Photocopiers were somewhat less dependable when this was written than they are nowadays, often creating blurry greyish copies. Current machines tend to be somewhat more dependable, and to either work or not work.

But the best place to find malfunctioning copiers still seems to be in offices with impending critical deadlines.

Karnaugh Knowledge

Karnaugh Knowledge

for one or more percussionists

```
..... ..4.. ..45. ....5. ....56 ...456 ...4.6 .....6
1..... 1..4.. 1..45. 1...5. 1...56 1..456 1..4.6 1....6
12.... 12.4.. 12.45. 12..5. 12..56 12.456 12.4.6 12...6
.2.... .2.4.. .2.45. .2..5. .2..56 .2.456 .2.4.6 .2...6
.23... .234.. .2345. .23.5. .23.56 .23456 .234.6 .23..6
123... 1234.. 12345. 123.5. 123.56 123456 1234.6 123..6
1.3... 1.34.. 1.345. 1.3.5. 1.3.56 1.3456 1.34.6 1.3..6
..3... ..34.. ..345. ..3.5. ..3.56 ..3456 ..34.6 ..3..6
```

Each cell in the grid represents a six beat measure. For each measure, play a sound on beats that contain digits and remain silent on beats that contain the dot (“.”) character.

The tempo and volume for the piece remain constant.

From each cell, you may switch to the cell directly above, below, to the left, or to the right. You may wrap around the edges,

Composed in 1978, originally for gamelan and using a variant of gamelan notation. This is the first of my pieces (unless earlier ones have been forgotten) to be related to the Gray code algorithm: the Karnaugh map is a way of expanding Gray code into two dimensions. Other than the grid itself, the instructions either were never written down or have been lost and forgotten, and were recreated from memory for publication here.

I later reused the grid in another score, “Library Music (incorporating Karnaugh Knowledge)” on page 71, in 1983.

switching between corresponding categories on the top and bottom rows and in the left and right columns.

To begin, all play the opening (silent) cell together, then switch along the grid to adjoining cells.

In the course of the performance, you must perform the cell in which all six beats are played (123456) at least once, reaching it by the grid movements described above, then return via grid movements to the opening (silent) cell.

One member may conduct the group, indicating the tempo and downbeat, if the group wishes to have a conductor.

A single player may play multiple instruments along differing paths, if possible without becoming utterly confused.

Hooft

Hooft

for winds (or strings or humming or whistling)

The first player plays a note, stretching it over the length of a breath (or its equivalent on that instrument).

After a time, a second player joins the first, playing two notes stretched over one breath, one of the notes being the same as the note played by the first player. Repeat these patterns with each breath.

After a while, add a third player playing three notes per breath, two of them the same as the previous player's, and so on.

When you run out of players, have each of the rest of the players, beginning with the first, add notes to their own lines until they are playing lines of as many notes as there are players, each line incorporating the notes previously played by that player.

When again you run out of players, continue for a number of breaths equal to the number of notes in the phrase (now equal to the number of players) then drop one note from each phrase.

The title comes from James Joyce's *Finnegans Wake* (page 506, line 3), but doesn't have much to do with the piece itself.

I didn't indicate whether a player's notes must be of equal duration. While I suspect that I meant that they should, you could also try playing rhythmically varied phrases with the appropriate number of notes.

Continue again for a number of breaths equal to the number of notes being played (now one less than the number of players) and drop another note.

Repeat this subroutine until each player is only playing one note.

End.

NOTE: Breaths should not be of the same length for all players, but the length of each player's notes should be consistent.

1979

Gray Code (Realization #1)

Gray Code (Realization #1)

for five percussion instruments

One square = one beat.

Each instrument plays one symbol.

After each time through the piece,
the instruments switch roles

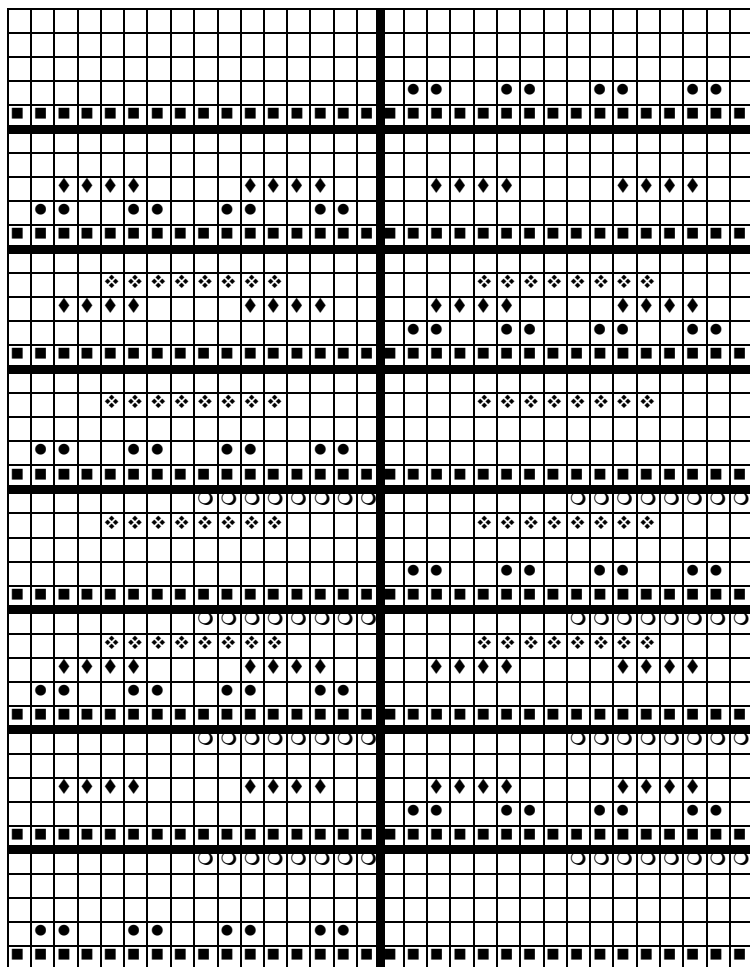
(■ -> ● -> ◆ -> ❖ -> ○ -> ■...)¹

and repeat the piece through five iterations.

10/8/1980

1. The original score used slightly different icons, and was drawn on graph paper.

Gray Code (Realization #1)



Gray Code (Realization # 2)

Gray Code (Realization # 2)

for solo voice

da da da da da da da da da da da da da da da da
da di di da da di di da da di di da da di di da
da di bi ba ba bi di da da di bi ba ba bi di da
da da ba ba ba ba da da da da ba ba ba ba da da
da da ba ba bat bat dat dat dat dat bat bat ba ba da da
da di bi ba bat bit dit dat dat dit bit bat ba bi di da
da di di da dat dit dit dat dat dit dit dat da di di da
da da da da dat dat dat dat dat dat dat da da da da
da da da da dat dat dat dat DAT DAT DAT DAT DA DA DA DA
da di di da dat dit dit dat DAT DIT DIT DAT DA DI DI DA
da di bi ba bat bit dit dat DAT DIT BIT BAT BA BI DI DA
da da ba ba bat bat dat dat DAT DAT BAT BAT BA BA DA DA
da da ba ba ba ba da da DA DA BA BA BA BA DA DA
da di bi ba ba bi di da DA DI BI BA BA DI DI DA
da di di da da di di da DA DI DI DA DA DI DI DA
da da da da da da da da DA DA DA DA DA DA DA DA

consistent tempo

a as in father

i as in bit

CAPITALIZED syllables at a higher pitch than others

either slow or fast

10/9/1980

Library Music (incorporating Karnaugh Knowledge)

for many people playing quiet, portable instruments or
performing movement in a large space

```
..... ..4.. ..45. ....5. ....56 ...456 ...4.6 .....6
1..... 1..4.. 1..45. 1...5. 1...56 1..456 1..4.6 1.....6
12.... 12.4.. 12.45. 12..5. 12..56 12.456 12.4.6 12...6
.2.... .2.4.. .2.45. .2..5. .2..56 .2.456 .2.4.6 .2...6
.23... .234.. .2345. .23.5. .23.56 .23456 .234.6 .23...6
123... 1234.. 12345. 123.5. 123.56 123456 1234.6 123...6
1.3... 1.34.. 1.345. 1.3.5. 1.3.56 1.3456 1.34.6 1.3...6
..3... ..34.. ..345. ..3.5. ..3.56 ..3456 ..34.6 ..3...6
```

Select six distinct words, sounds, modes of making sounds, motions, or types of movement. Any person, listening to you or watching you, should be easily able to distinguish the categories that you are using.

This chart shows a grid of the possible combinations of the six categories. You may perform each combination repeatedly in any way, as long as you keep the distinctions among the catego-

I first composed Library Music in 1978 as a less specific piece (now lost) that did not indicate the organization or distribution of the performers' actions. I first added the matrix (used earlier in "Karnaugh Knowledge" on page 64) to the piece in 1982.

The current version was created for its premiere on 4 October, 1996 at the Simultaneity II event in Denton, Texas (described on page 45).

Library Music (incorporating Karnaugh Knowledge)

ries clear and use each of the categories in that combination in equal proportions.

From each combination, you may switch to the combination directly above, below, to the left, or to the right. You may wrap around the edges, switching between corresponding categories on the top and bottom rows and in the left and right columns.

(The dotted notation indicates the categories that are used and omitted within a combination. It does not imply any particular rhythms or ordering of those categories. The 1 . 3 . . 6 notation, for example, tells you to include categories 1, 3, and 6 in the combination in approximately equal proportions, and in any order or sub-groupings, and to omit categories 2, 4, and 5 from the combination.)

To begin, gather together with the other performers in a common place. Start by performing the upper left (still) combination together, then switch along the grid to adjoining combinations.

Move away from the others to another location within the large space. As you move, continue to perform, if possible. When you reach your destination, you should only be able to hear the players nearest you faintly or to see them peripherally. Perform quietly, positioned so that this is possible for others.

Encourage the audience to wander quietly among the performers, stopping to pay attention to some as they wish. If possible, the audience's programs should contain this score.

During the performance, you may pause once to wander briefly among the other performers, then return to your spot to continue where you left off.

Library Music (incorporating Karnaugh Knowledge)

In the course of the performance, you must perform the combination containing all six categories (123456) at least once, reaching it by the grid movements described above, then return via grid movements to the beginning (still) combination.

After a predetermined amount of time passes, or at a commonly agreed signal, leave your position and return to the common area at which the performance began, continuing your sounds or motions, if possible, as you move.

The piece ends when all players have reached the common area and the opening combination and are again still.

Octet

Octet

for pitched percussion

I wrote this piece for Livingston College's Gamelan Tabanan, an ensemble that played traditional Indonesian and contemporary music on instruments that had a scale of four pitches per octave. We performed it as the overture to a Ramayana shadow play. The gamelan's founder, Barbara Benary, later published it in an issue of *Ear* magazine that she guest-edited.

In each measure, pitch 1, when present, always appears on beat 1, pitch 2 on beat 2, and so on.

The eight lines of the score are organized as follows:

1. All the possible combinations of the four beats, in ascending order.
2. The complements of line 1, playing the beats that are not played in the corresponding measures of line 1.
3. The mirror images of the corresponding measures in line 1.
4. The complements of line 3.
5. The combinations in line 1, shifted over one beat (with beat 4 jumping back to beat 1).
6. The complements of line 5.
7. The mirror images of the corresponding measures of line 5.
8. The complements of line 7.

1... .2.. ..3.4 12.. 1.3. 1..4 .23. .2.4 ..34 123. 12.4 1.34 .234 1234
 .234 1.34 12.4 123. ..34 .2.4 .23. 1..4 1.3. 12..4 ..3. .2.. 1.... ..
 ...4 ..3. .2.. 1.... ..34 .2.4 1..4 .23. 1.3. 12.. .234 1.34 12.4 123. 1234
 123. 12.4 1.34 .234 12.. 1.3. .23. 1..4 .2.4 ..34 1... .2.. ..3.4 ..
 .2.. ..3.4 1... .23. .2.4 12.. ..34 1.3. 1..4 1.34 12.4 123. .234 1234
 1.34 12.4 123. .234 1..4 1.3. ..34 12.. .2.4 .23. .2.. ..3.4 1.... ..
 ..3. .2.. 1....4 .23. 1.3. ..34 12.. .2.4 1..4 123. .234 1.34 12.4 1234
 12.4 1.34 .234 123. 1..4 .2.4 12.. ..34 1.3. .23.4 1.... .2.. ..3.

Dots represent rests; Numbers represent either four pitches or beats for unpitched instruments.

All instruments play through the piece once in unison. Then it is played as a canon, instruments entering at intervals of one line.

If played in stereo, instruments 1,2,5, and 7 should be on the left, and instruments 2,4,6, and 8 should be on the right. If played in quad, instruments 1,5,2, and 6 should be in front, and 3, 7, 4, and 8 in back, thus:

1,5 2,6
 3,7 4,8

Convention '83

Convention '83

for a large ensemble

All players begin

by playing one note together repeatedly.

One player then changes what he is playing

- adding a note (making a two-note pattern), or
- changing the pitch of the note

Interval relationships to the original note

should be consonant or

at least harmonically defensible.

Others, hearing the change, change to it,

keeping to the original pulse

at all times during metamorphoses.

The first of the Convention series, which also includes “Convention ‘91” on page 84 and “Convention ‘96 (Current Loop)” on page 136. I suspect that it was an attempt to emulate Terry Riley’s *In C* without precomposed melodies.

When all are playing unison again,
another player changes what he is playing
(considering the length of his pattern
as one or more periods
of the common pattern)

- adding a note
- dropping a note
- changing one note, or
- transposing the entire pattern

Others, hearing his changes, change to it,
keeping to the original pulse
at all times during the metamorphoses.

Repeat this process.

Later:

A player may wander away from the group
and make a change or stay the same
independent of them.

Other players may choose to align with him
or stay with the group.

Convention '83

Eventually:

All the players should wander
from group to group,
forming, breaking, and redefining alliances
till what is heard
is a complex, continually shifting mass of

- polymeters
- polytonalities
- timbral mixes.

Finally:

Players coalesce
into a smaller number of groups
then at last into one group
whose pattern shortens and simplifies
until, at the end,
everyone is playing
a single note.

Monaural

For Six Guitarists
Playing Six Guitars
One String Each
(Each plays a different string.)

Start with quick rhythms, played [at] a steady pulse on the frets shown here.

```
String:  E  A  D  G  B  E  
Fret:    0  2  2  0  0  0
```

Once this chord is established, each begins moving up his string, utilizing segments of four contiguous frets in improvisation. When a player adds the next higher note, he must drop a lower note so that at all times he has only four pitches at his disposal. Try to move up the fretboard at a pace similar to that of the other players. Harmonic or modal consistency is not important, but consistency of pulse and intensity of communication are.

When all players have worked their way up to the four frets 19 through 21, each should drop notes until each only is using the one note shown here for his string:

```
String:  E  A  D  G  B  E  
Fret:   19 19 21 21 20 19
```

When all have gotten there, they should stop together.

7 April 1983

Going

Going

for singer, instrument, and optional speaker

Instrument

Play a continuous chord or arpeggio for each line in turn, moving to the next line once the singer has sung the text for that line. Use different chords for contiguous lines. Avoid repeated sequences of chords.

Singer

Sing each line in any way, remaining consonant with the chord that the instrumentalist is playing. Once the instrumentalist has moved to another chord, sing the next line, reading down each column in order. Pause as needed.

Speaker

Murmur the text at a constant level, moving forward and backward in it at will, but only using lines that the singer has already sung.

First performed at Lunch For Your Ears in New York, August 5, 1988, by Tom Betz (baritone), Steve Matzura (keyboard), and Joseph Zitt (speaker). The performance instructions were never written down, so I reconstructed them from tapes and memory for this publication.

Text

To discover
where it was
he was going
as he knew
someday
he would
by setting out
by going forward
on the path
he stepped ahead
and learned the lay
of the land
looking forward
looking back
standing still
watching
each stone
in the road
till he knew it
till he saw it
in waking dreams
till the stones were
the hands of lovers
stepping back
stepping forward
rehearsing

each moment
to be sure
cautious
entrusting his feet
to the road
committing his
heel, sole, toe
by fragments of inches
he moved ahead
reviewing each motion
till the memory
of each step before
was as solid
as the step
he was currently taking
was as real
as a dream
seems
to the dreamer
till the steps
held him standing
guided him forward
till no turning back
no temptation
whispered in secret
whispered in waves

Going

modulating silence
till his goal
glowing
appeared
in a haze
at the end
of the path
he moved onward
confirming each motion
the tension
release
the muscles, the sinews
the calf, the thigh
the feet
blessed the granite
and learned the play
of flesh upon stone
the feeling
no man alone
could read
all the stories
of each stone
in the path
he moved forward
absorbed the feeling
till each foot
could tell

what it had learned
of the stories
of the stones
to the other
then he moved
and only then
to the next stone
and its stories
dreaming forward
reaching back
comparing
the tale of the stone
with the stone before
contrasting
committing its
tale, morals, warning
to memory
how it was the same
how different
from the tales
of the stones before
and his goal
rising
emerged
from the path
growing higher
pausing

Going

confirming its presence
each rise
a step more real
than waking dreams
and he saw it
and he knew it
from the road
from each stone's
whispered
stories
rising still
he looked back
looked forward
and learned the ways
of man
in steps ahead
along the path
in going forward
in setting out
he would know
in the way
that the goal
was in the going
he discovered
the goal
stones
in rising

blessed his
toe, sole, heel
till he sang
the blended stories
and looked back
to see
stones turned to silver
as the song
the stones' stories
and discovered
that it was
forever
his own

26 July 1988

Convention '91

Convention '91

for multiple voices and movement

Beginning

All participants gather together in one place.

One person begins a brief, repeating sound or gesture.

All others gradually join in, performing the same sound or gesture.

Middle

Any participant may move away from the group and:

- Perform a repetitive variation on the previous pattern
- Perform a different sound or gesture
- Become still or silent, or
- Join someone else's sound or gesture.

A revision of "Convention '83" on page 76. I wrote this version (without consulting the earlier score, which I thought was lost) for an audience participation performance by the members of a workshop that I was attending, led by Deborah Hay and Beverly Bajema (though, for reasons that I have forgotten, I missed the performance itself). I later revised the piece again into "Convention '96 (Current Loop)" on page 136.

<Emphasis>Convention '91

Ending

The piece ends when:

- All participants are doing the same sound or gesture (after at least one participant has broken away and started a new sound or gesture), or
- The entire group is still and silent.

8 March 1991

Heading Home from Hades

Heading Home from Hades

for three male singers, three female dancers, lights,
and sound

Personnel

- Singers** Three men, with similar ranges and voices that blend well with one another
- Dancers** Three women
- Lights** Three (as described under Lighting)
- Sound** One (to switch on and off tape player for singers)

Setting

The three singers stand upstage right, center, and left. In front of them, the dance area of the stage is enclosed so that a dancer can tell, by touch, when she has reached the edge. Depending on the format of the performance area, a drop or the floor itself, either white or neutral, reflects the lighting (as described below).

Written as a proposal for a segment of a performance evening, *Metamorpheus*, organized and presented by the Vortex Repertory Theater in Austin in 1990. (The proposal was turned down, and the piece has not yet been performed.)

Music

The three singers listen on headphones to a guide tape (that the audience cannot hear). On the tape is a slow pulsing drone and a voice reading the text at one word or phrase per beat. A set number of pulses without text precede the beginning of the text, so that the singers can catch the tuning and tempo.

Each singer sings the text along with the spoken voice, singing notes that are in tune (though not necessarily at consonant intervals) with the drone note, beginning with the drone note itself, then gradually increasing the range and variety of pitches used over the course of the piece.

The singers should not be able to hear each other, so that any singer's choice of pitches is not influenced by the pitches that the others are singing. Thus, the resultant combined melodies and harmonies will not be predictable.

Singers should sing each part of the text in a different way than at previous performances. The singing should be calm but intense, at a steady, moderate volume.

Dance

The three singers each lead a blindfolded dancer to her starting spot on stage. The singers then move to their respective music stands and put on the headphones. When all the singers are ready, the technician begins the guide tape.

When the singers begin, each dancer begins a simultaneous solo dance. The dances contain a number of movement phrases corresponding to the number of text phrases being sung. The dancers begin with a small number of phrases, dancing one per sung phrase. As each dancer hears the singers add text phrases, she adds a corresponding dance phrase. (While at all times during the piece, the number of phrases that the dancers are using corresponds to the number of phrases that the singers are using, the dancers are not required to use the dance phrase corresponding to the text phrase for any particular beat.)

The dancers should not use a shared vocabulary of movements.

Since each dancer is moving independently, blindfolded, the movements should be gentle and careful, so that the dancers are not injured if they make contact. If they do make contact, they have the option of improvising a brief duet (or trio) together before separating. The borders around the dance area keep the dancers from stepping out of their space.

When the singers stop singing, the dancers stop dancing. The singers remove their headphones, walk to their respective dancers, and guide them from the stage.

Lighting

Each dancer is followed by a small spotlight of a different primary color. The spots, and the resulting shadows and color combinations, create moving patterns either on the back wall above the heads of the singers, or on the floor of the dance space. (You may modify or replace this lighting scheme if moveable colored spotlights are not available.)

Each singer has a small light, possibly clipped to his music stand, by which he can read the text. The singers themselves stand in darkness.

Costumes

Singers Dark shirts and trousers

Dancers Uniform neutral colored clothes and blindfolds

Equipment

- One cassette player
- Junction box to connect three headphones to the cassette player
- Sufficient cable to reach from cassette player to junction box to headphones
- Three music stands
- Three lights to illuminate music stands
- Three small follow spots, each of a different color
- A boundary around the dance area—possibly the ropes and stanchions used for lines in theatres.

Heading Home from Hades

Rehearsal

Each singer and dancer is given a cassette of the guide track to which he or she can rehearse independently sometime before the performance.

A short time before the performance, the singers, dancers, etc, rehearse together to work out the feel of the space, the entry and exit, and other issues which may become necessary.

Text

The text is adapted from the description of the voyage of Orpheus and Eurydice in Virgil's *Georgics*. It contains of a small number of words or phrases, beginning with a small array of the chosen phrases, then adding further words until, by the end, the full set is used. The phrases are strung together so that small groupings of the text seem to make a dreamlike sense, even if they do not completely work grammatically or combine intelligibly with the groupings of phrases that precede or follow them.

The phrases in the text are repeated, mixed, and iterated over a total number of beats corresponding to the assigned duration and chosen tempo of the piece (which should be slow).

Read the text columns down, then across.

Source

At last, having evaded every hazard,
He was returning, and Eurydice,
Restored to him and following behind,
(So Proserpine's stern ruling had demanded)
Was coming back into the world above.

*Virgil, The Georgics (4:485-489),
translated by L. P. Wilkinson*

Heading Home from Hades

I	you	I	I
at last	at last	having	return
return	restored	at last	I
at last	at last	restored	having
I	you	you	evaded
return	return	return	you
I	restored	having	having
at last	I	evaded	restored
return	having	you	you
you	you	having	return
I	return	restored	you
at last	I	you	toward the
I	having	I	evaded
return	restored	return	toward the
at last	you	you	restored
you	at last	restored	at last
restored	having	I	toward the
return	you	evaded	restored
you	having	you	evaded
restored	restored	I	world
at last	you	return	return
return	having	I	you
I	you	restored	at last
return	return	you	I

Heading Home from Hades

return	every	evaded	having
toward the	world	every	evaded
restored	behind	hazard	every
world	you	behind	hazard
you	following	I	behind
following	behind	return	<i>(pause)</i>
toward the	at last	you	at last
world	restored	having	having
restored	you	evaded	evaded
toward the	return	every	every
evaded	following	hazard	hazard
world	behind	and	I
every	having	you	and
restored	hazard	and	you
evaded	behind	I	restored
world	hazard	return	following
having	every	toward the	behind
evaded	hazard	world	return
you	behind	having	toward the
I	I	evaded	world
return	return	every	above.
having	you	world	
restored	having	behind	

three body words

for four singers and four dancers

for Deborah Hay and Beverly Bajema

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This was the last piece in a series of text pieces written according to strict rule sets, and the only one to have a live performance aspect.

Its predecessor, *Tribute*, was a set of 48 acrostic poems, written one per day. Each was done in half an hour, during which I

three body words

spoke the words, as I came up with them, into a tape recorder. I then mixed them together for a half-hour sound piece. (However, human error introduced flaws in the mix, and I haven't had the chance, equipment, and interest to remix it.)

The other, *Calendar Poems*, was a set of twelve texts, each of which consisted of exactly sixty unique words. While I tried with several groups to develop a musical setting of them, none of the methods worked particularly well.

This piece started with the desire to create a CD-length work, leading to the creation of a rule set for generating the text (as described in "On the Text" on page 121). I wrote it in a hardbound notebook, much of it while waiting for buses or sitting in coffee-shops, if I recall correctly, in Austin in 1995.

The piece was premiered (in its simplified "Spontaneous Harmony" version) by the Human Systems Performance Group, a loosely defined group that I led in Austin when I lived there in the 1990s. The group was called into being when a piece needed it. While some people were in several of the pieces (which included the dance/theater works *Shekhinah: The Presence* and *Minyan: After Chagall*), each piece called for different skills, and no one performed in all of them.

I hope to revive the name for future groups performing these and related works.

Performance Notes

Personal Reading

Read down each column in order. If you are reading the text aloud, read it at an even pace, one word per beat, with the accented syllable landing on the beat. Each dot represents a one beat rest.

You could, alternatively, read the text by letting your eyes bounce among the stanzas, connecting them by chance or at will into new configurations.

The accents on the following words (which in their written forms are ambiguous as to their pronunciations) are as follows:

pro'ject	col'lect	con'tent	untuned'
digest'	some'day	increase'	ex'ponents
de'sert	concave'	interpose'	trans'late
reconfig'ure	seg'ment	offstage'	pre'sent

Pronounce "live" with a long "i."

three body words

Musical Recording and Performance

The music for *three body words* is to be performed by four baritone¹. The four should not know each other and should not be familiar with each other's singing.

In the first phases of the recording, at least, each singer should be free to develop his own melodies. To make this possible, the composer should not discuss with the singers the meaning of any section of the text.

1. It could also be done by any other four singers with a common vocal range.

Music Phase Zero: The Guide Track

Engineer

Record two 18'35" long tracks on separate channels of a multi-track tape:

- A steady 60 Hz tone with a clear and pleasing timbre.
- A 68 beat per minute pulse.

Speaker

Record a reading of the text on another channel of the tape. Starting at the fifth recorded beat, read down each column, one word per pulse-beat, with the accented syllable on the beat. Each dot represents a one beat rest.

three body words

Music Phase One: Individuals

Engineer

Record four baritones singing the text on individual tracks of the tape as follows:

Singers

Sing the words of the text. Use the rhythms of the voice on the guide track, and use the pitch of the drone as your tonal center. Prepare or improvise appropriate melodies for the words, keeping in mind that the result will be mixed with three other performances.

You may choose to be silent¹ during any stanza (a series of words that are not separated by rests), if necessary. However, you may not skip two stanzas in a row.

-
1. This could lead accidentally to a case in which all four singers might independently choose to be silent during the same stanza, with its text therefore completely unheard in the recording. The odds of that happening, however, are probably low enough that we can allow the silences, in moderation.

Music Phase Two: First Contact

Engineer

Bring the four baritones together after each has recorded his part for Phase One. Do not play any of the Phase One recordings for any singer except for the single track that he recorded himself. Record them singing the text together, using the guide track as before.

Singers

Sing the text again in a single take. Listen to what the other singers are doing, and allow what you hear to influence what you sing, consciously or unconsciously, to whatever degree you feel is appropriate. As before, you may be silent during any stanza but not for any two consecutive stanzas. Each stanza should be sung by at least one singer.

three body words

Music Phase Three: Cooperation

Engineer

Play the results of Phase One and Phase Two for the singers. If possible, give each of them copies of the mixes (without the guide track). At a later date, record them again together.

Singers

Work with the other singers (rehearsing together, discussing the materials, listening to the previous phases) to develop a unified approach to the performance.

When you are ready, record the text again, together.

Music Phase Four: Community

Engineer

Prepare a performance environment containing:

- Either a playback system to reproduce the pulse and drone from the recording, or amplification for instrumentalists producing the pulse and drone. In either case, the sounds should be pleasant and warm.
- Five microphones, surrounding the audience: one for each of the four singers and for the speaker.
- Seating for an audience. The audience must have enough light during the performance to read the text, either from distributed scores or from projections.
- Either a copy of the text for each audience member who wants one, or a projection system from which each member of the audience can read the text.

three body words

Speaker

Introduce the piece, describing to the audience the way it was created and how it will be performed. Invite them to participate, singing as much or as little of the text as they wish, in rhythm with the pulse and the amplified voices and in tune with the drone. Note that it is also all right to simply listen attentively and not sing.

Cue the piece to begin, and start the singing at the fifth beat.

Singers

Sing as before, in rhythm with the spoken words and in tune with the drone. Listen to what the other singers and the audience are singing and allow what you hear to influence what you sing. Through your singing, invite the audience to listen and, if they wish, to sing.

three body words

Producing a Compact Disc of the Recordings

If the recordings of the piece are released as a CD, the disc should contain four takes of the piece: Phases One, Two, and Three (all using only the singing voices and not the pulse, drone, or guide tracks), and either the Phase Zero recording or a live recording of Phase Four.

Each take of the piece is eighteen minutes and thirty seconds long. Four takes should fit comfortably on a seventy-five minute CD. If possible, include index points within each take, corresponding to the beginning words of the thirty-two columns.

three body words

Video/Dance Performance

The movement for *three body words* is to be performed by four dancers. The four should not know each other and should not be familiar with each other's dancing.

In the first phases of the recording, at least, each dancer should be free to develop his or her own movements. To make this possible, the composer should not discuss with the dancers the meaning of any section of the text.

Video/Dance Phase One: Individuals

Engineer

Set up a video recording space in which four dancers can move comfortably and independently and a single stationary video camera can capture their movements. Design the background so that it will show as little as possible on camera when four takes are superimposed.

Record solos by each of the dancers in turn, as described below, then superimpose them, using the music track as a guide, into a single recording.

three body words

Dancers

Move within the space to the recording of the text. Prepare or improvise appropriate movements for the words and melodies, keeping in mind that the result will be mixed with three other performances.

You may choose to be still during any stanza (a series of words that does not contain any rests), if necessary. However, you may not skip more than three stanzas in a row.

Video/Dance Phase Two: First Contact

Engineer

Bring the four dancers together after each has recorded his or her part for Phase One. Do not play any of the Phase One video for any of the dancers except for the footage that he or she recorded. Record them moving to the text together, using the same audio recording, camera angle, and lighting as before.

three body words

Dancers

Move together within the space to the recording of the text. Use the movement materials from your previous solo, but watch what the other dancers are doing. Allow what they do to influence what you do, consciously or unconsciously, to whatever degree you feel is appropriate. When appropriate, move with them.

As before, you may be still during any stanza but not during more than three consecutive stanzas. At least one dancer should be in motion during each stanza.

Video/Dance Phase Three: Cooperation

Engineer

Play the results of Phase One and Phase Two for the singers. If possible, give each of them copies of the videotapes. At a later date, record them again together, using the same audio recording, camera angle, and lighting as before.

Dancers

Work with the other dancers (rehearsing together, discussing the materials, viewing the videotapes of the previous phases) to develop a unified approach to the performance.

When you are ready, record the piece again, together.

three body words

Video/Dance Phase Four: Community

Engineer:

Prepare a performance environment as described for Phase Four of the musical performance. Arrange the audience in a circle around an open space. If this is done together with a live performance of the music, place the singers, instrumentalists, and composer or speaker outside the circle and the dancers within it. If possible, videotape the performance, retaining as much of the mood and the look of the studio recordings as possible.

Speaker

Introduce the piece, describing to the audience the way that it was created and how it will be performed. Invite them to move in the space with the dancers, as suggested by the words and music and the dancers' movements. Note that it is also all right to simply watch attentively and not dance.¹

Cue the piece to begin, and start the movement at the fifth beat.

Dancers

Move as before, as suggested by the words and music. Watch what the members of the audience who choose to dance are doing and incorporate it into your own movements. Through your movements, invite the audience to watch and, if they wish, to dance.

1. This invitation may prove riskier than the invitation to join in the sounding. While an ideal performance would include audience members, the performers may decided not to extend this invitation.

three body words

Producing a Videotape or Broadcast of the Piece

If the recordings of the piece are released as a videotape or combined for broadcast, the result should contain Phases One, Two, and Three.

Each phase of the piece is eighteen minutes and thirty seconds long. Three phases should fit comfortably within a one hour broadcast.

Spontaneous Harmony Performance

Spontaneous Harmony is a single-phase public performance of *three body words*. It requires little or no rehearsal and can be performed without electronic equipment.

Organizer

Recruit four singers of different ranges. Before the performance, give each a copy of the text and or these rules. If possible, give each a copy of a Phase Zero tape containing a pulse, drone, and reading of the text.

The singers should not know each other and should not be familiar with each other's singing.

You may rehearse the piece individually with each singer. Do not tell any singer how the other singers are planning to perform their parts or discuss with any singer the meaning of the text.

Select one or more instrumentalists to provide the pulse and drone in performance.

three body words

Instrumentalists

For the course of the entire performance, provide a steady unison drone pitch of 60 Hz (or a multiple of it) and a steady pulse of 68 beats per minute. The sounds should be loud enough to be clear to the singers, but not loud enough to distract attention from them.

If there are multiple instrumentalists, each may pause occasionally. At all times, the pulse and drone must be played by at least one person.

Speaker

Speak the text. Starting at the fifth pulse beat, read down each column, one word per pulsebeat, with the accented syllable on the beat. Each dot represents a one beat rest.

Singers

Sing the words of the text. Use the tempo of the pulse, the rhythms of the spoken voice, and the pitch of the drone as your guides. Prepare or improvise appropriate melodies for the words in tune with the drone. Do not discuss the text or how you are developing your melodies with other singers before the performance.

In performance, listen to what the other singers are doing, and allow what you hear to influence what you sing, consciously or unconsciously, to whatever degree you feel is appropriate.

You may choose to be silent during any stanza (a series of words that are not separated by rests), if necessary. However, you may not skip two stanzas in a row.

three body words

Bibliography

The following texts, among many others, influenced the creation of *three body words*:

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On the Art for this Edition¹

The process by which these graphics were created echoes, in a different medium, Phase One of the musical and video/dance performances. We gave the text and these notes to four artists and asked each to create an appropriate four-inch square black and white computer image, keeping in mind that we would combine the image with four others and print it on its own in a reduced, two-inch square form.

The resulting combined image appears on the front cover of this publication. The four original images appear, reduced, on the back cover.

-
1. This was planned for an original printing of the text, which didn't happen. I have left it in the current publication to show how the idea might work in another medium. I may yet get to create this visual piece.

three body words

The Premiere Performance

The premiere performance of *three body words (Spontaneous Harmony)* was on April 8, 1995 at Mexic-Arte Museum in Austin, Texas, as part of the Cutting Edge / Multimedia performance evening of the third annual Austin International Poetry Festival.

The following members of the Human Systems Performance Group participated in the premiere performance:

Singers

Bobby Corbell
Robert Kennedy
Mary Krenek
Kris Olson

Synthesizer

Josh Ronsen

Kennedy, Olson, and Ronsen were also the members of the new music ensemble *Batrachomyomachia*.

This premiere performance was dedicated to Chris Kelly (who has taught me, by her insight and example, about creativity and community) and to Gary Graves, in honor of their wedding.

The score, notes, and text for the premiere performance of *three body words (Spontaneous Harmony)* were published by *Monk Mink Pink Punk*, a magazine of music and mayhem, edited by Josh Ronsen.

On the Text

The piece started with a sound that I wanted to hear: four voices intertwining to produce a free yet coherent ongoing harmonic ambience. This immediately produced a question: How could a system be created to keep the voices aligned but with the most freedom possible?

The singers would need common rhythmic material to keep them together rhythmically. I decided that a brief repeating rhythmic groove would be insufficiently interesting, and decided against having them sing nonsense syllables or completely random text; I prefer voices to be saying words and for the words to be saying something¹. I didn't want them to be singing a conventional syntactically organized text since the structures of sentences strongly suggest limited ways in which singers might form melodies. I also wanted to avoid repetition within the text, since repetitions of words might strongly suggest repetitions in the melodies; while it was all right to have repetitions within the melodies, I did not want the text to suggest places for these repetitions to the singers.

1. My mind has changed on this aspect since creating this piece.

three body words

I therefore decided that I needed to create a non-repeating, non-syntactic text. I used the following rules in composing it:

- No word can appear more than once, though different forms of the words, such as singular and plural forms or different tenses, can appear. (I created a program in the Perl programming language to check for possible duplications.)
- No three words can appear together in a stanza in an order in which they would be likely to appear within a sentence.
- Only commonly used English words appear.
- No proper nouns appear. (One word in the text, "china," may violate this; I decided to allow it because it has other meanings.)
- The length of the text is determined by the intended printing format¹. It appears in thirty-two columns, four per page, on an eight and a half inch tall page. Allowing for one inch margins at the top and bottom of each column, and for ten point type leaded at twelve points, this set the height of each column at thirty-nine words or rests. Thus, the entire text is 39 x 32, or 1248 beats long. This allows it to be read within eighteen and a half minutes (the max-

1. For this publication, we have reduced the point size of the text to retain the column structure of the piece. This may result in the text being, though legible, too small for comfortable performance. If so, it may help to photocopy the text at a larger size.

imum length for four renditions to fit comfortably on a compact disc) at a comfortable rate of 68 beats per minute.

- Each column ends with a rest. This reduces the chance of the singers missing the next word when jumping to the top of the next column.

The text addresses, in an abstract way, issues that I hope to write about later at greater length in a book structured as a commentary on this piece¹. Its meaning is, I admit, frequently obscure. It may be best to approach it not by trying to puzzle out its single intended meaning, but rather by letting the clouds of words bump up against one another in your mind and seeing what images arise.

1. At this point I doubt I'll ever get around to writing that.

three body words

If	imagine	contemplate	chains
systems	.	.	links
.	sense	each	concepts
and	creativity	perform	.
when	.	.	ephemeral
obstacle	causality	unknowing	embraces
.	identifies	.	eternities
parallel	reference	content	.
motive	.	leaks	flash
correlate	effects	.	forgetting
.	spontaneous	observer	fantasies
project	.	.	.
appear	effort	fabricate	reform
.	reward	totalities	.
attentively	.	.	description
everything	together	reminding	refract
.	signifies	.	.
transition	independent	corners	mirror
.	.	centers	glass
segments	collect	perimeters	imperfect
birdsongs	majesty	.	.
goals	echo	unguarded	encoding
.	cricket	.	language
infinite	.	choices	common
intricate	pensive	chances	.
.	.	parameters	unspoken
revolution	airlines	.	.
cautiously	.	alignment	disrupted
awaken	roar	clusters	focus
.	immediate	.	.
intertwines	dragons	skewed	realign
live	.	touch	along
planet	sleep	harmonies	gravity
radiating	forget	.	.
.	recognize	opportunities	liquid
enhances	.	mist	tangram
breath	accept	.	polarity
repeated	resume	clearing	renamed
.	.	.	.

three body words

history	renew	earthquake	strange
.	review	equipoise	familiar
revise	.	.	.
advice	desires	day	animal
.	disinterest	beauty	attractor
victor	distastes	.	.
vicarious	.	night	over
victim	refrain	.	square
.	others	treefrogs	irrational
vigilance	dismiss	far	.
violate	own	ambulance	chrysalis
vision	.	.	alchemy
.	respond	untuned	.
textbook	invention	harmony	digest
tautology	.	.	immunity
.	method	procession	.
mission	manifested	doppler	twice
recover	modulate	reimagine	river
.	.	.	soundings
fact	tools	pitch	.
connection	revive	direction	inspire
implication	reverse	relative	fish
.	purpose	.	ascend
frailty	.	sculpture	emerge
considered	hammer	.	decay
.	demand	drama	.
evolve	thwart	diffuse	even
retroactive	nail	.	lowest
future	.	dragonfly	someday
.	flexibility	ambition	function
artifact	.	.	.
uncover	condition	butterfly	transfigured
error	necessity	china	rose
celebrate	.	hurricane	bloom
.	overall	.	.
sharpen	admit	emerald	increase
hologram	.	mistral	powers
reborn	experience	wind	exponents
.	.	.	.

three body words

proclamation	sabbath	infiltration	unlimited
.	.	memetics	thought
jeremiad	freedom	.	horizon
expire	deny	whisper	.
.	alternative	often	chess
prophet	.	wisdom	two
beast	arms	.	ahead
wheel	swing	evade	.
lightning	nose	angel	information
.	.	kiss	game
comfort	bachelors	birth	.
.	.	unlearning	opposite
kinetic	crack	.	action
bible	liberty	living	identify
karma	.	continue	.
.	alarms	.	balance
extrapolate	ring	philosopher	communion
millennium	noise	wing	.
simultaneous	.	wake	interact
ecstasy	anthem	.	golden
.	.	centipede	neighbor
interpose	declaration	dance	you
moment	.	.	.
sequence	synesthesia	cave	cooperation
declined	refined	spider	.
.	.	king	do
conjugate	map	.	preceding
consequence	era	child	did
.	instant	mouth	.
was	.	.	attracts
will	distant	more	like
therefore	scale	.	.
.	.	city	earth
yet	dandelion	horse	as
duty	galaxies	smile	heaven
.	.	.	deep
clarion	exile	unofficial	.
telephone	sigh	intelligence	intimate
.	.	.	.

three body words

shout	god	disarming	trivial
ocean	gods	twins	timelines
sentience	man	.	.
.	.	apparent	contingency
undertow	desert	parent	.
.	fire	cavern	quantum
reverberate	.	casualty	dice
.	past	cascade	universe
waters	stare	emblazon	.
darkness	east	concave	happens
.	.	vexations	.
said	thus	.	traffic
let	west	solitude	storm
.	.	pear	.
garden	oracle	salon	necessary
rib	.	.	repeat
community	yarrow	piano	rinse
.	coins	mantra	lather
eat	fountain	.	shake
kill	.	form	.
mark	marble	.	dilute
tower	youth	instantaneous	okay
flood	paradise	eternal	.
.	.	.	dry
again	yearning	intensities	hair
alone	cable	.	tears
.	babel	modes	.
wilderness	.	values	chemical
.	draw	.	sorrow
recombinant	down	catalog	.
asymmetry	presence	birds	sincerity
.	.	.	theatre
evolution	already	relax	.
beliefs	here	causation	trust
species	.	.	.
.	weep	untangle	investment
which	tomb	since	bondage
up	children	after	submission
.	.	.	.

three body words

mattress	winter	she	later
green	wheat	.	.
security	.	spirit	vermilion
.	secret	unimagined	crash
tangible	snow	.	exhibition
.	.	cycle	.
tactile	crystals	love	theoretical
.	.	ethereal	exhilaration
static	fragments	.	.
.	.	fundamental	practical
actual	inner	poetic	expense
.	voices	.	.
self	.	sky	koan
who	contains	.	bird
only	multitudes	bright	dog
what	.	thunder	.
.	legions	waiting	peanut
silent	.	.	nutshell
drummer	am	warmth	.
.	are	.	grindstone
tend	then	or	eyes
sand	I	risk	.
field	they	devotion	road
.	.	.	.
rake	harmonics	symmetry	invisible
pond	.	named	flux
.	alphabet	.	.
motionless	emotion	ice	translate
rice	.	.	web
.	throwing	consolation	refraction
falls	letters	symphony	.
.	.	.	surface
twilight	permutation	spice	.
observed	.	tea	chapel
.	prayer	.	canvas
rise	.	communal	.
appropriate	private	tobacco	stained
season	recursion	voluntary	light
.	.	.	.

three body words

mirage	alter	unified	barbecue
.	image	.	pilgrim
quench	current	understanding	.
hallucination	.	.	satisfaction
.	murmur	worlds	.
eventual	mesmerized	enough	star
calm	mimic	.	grass
.	momentum	brush	considering
solace	.	attraction	.
.	unconscious	.	linear
recovery	velocity	envision	signature
creek	.	.	.
hallways	simple	illuminating	curve
.	humanity	cabbage	chaos
multiple	.	nonsequitur	enhance
voice	catch	.	.
.	.	arbor	mechanical
arm	expired	landscape	merge
quest	epic	.	nature
writing	clear	radio	.
.	room	cars	ever
forgiven	.	crow	on
.	but	conversation	.
extend	return	.	dust
myth	.	dawn	.
tendrils	expect	turns	reconfigure
reach	default	shadow	essence
.	heroic	hills	mercy
integrate	mundane	.	reveal
fahrenheit	.	blue	.
avatar	syntax	eagle	initial
.	explosion	rain	arrow
solo	catapult	wall	retrograde
flight	means	.	.
system	.	north	brief
conspire	three	circle	.
.	body	.	slow
stay	words	smoke	satin
.	.	.	.

three body words

horizontal	anchor	ambiguous	years
moon	gate	certainty	mutation
repose	windows	.	dark
.	.	urgency	learn
outlaw	scroll	.	late
definition	paper	ground	uncaring
architecture	shard	draft	.
.	.	dried	unseeing
capitol	modern	.	.
hat	tablet	figure	petrified
exceed	.	.	.
view	screen	sweet	stone
.	.	approach	tree
guitar	half-life	limit	monument
pride	inscription	ecstatic	.
joy	.	.	grand
bell	fractional	dances	faces
.	dimension	compass	tear
sidewalk	.	eye	denied
empathy	perimeter	.	.
.	guard	sheer	compliment
lips	.	vapor	deduced
triggers	fringe	spectrum	.
unity	illuminate	mass	understood
.	cities	.	.
dome	unbuilt	flowing	end
vigil	.	.	unhearing
sleepers	loves	caterpillar	.
awake	strays	walk	take
.	paces	grace	mystery
midnight	.	.	all
interactive	sandal	carefree	off
cinema	name	.	.
.	mislaid	caught	final
teleport	.	cracked	laughter
sacred	segment	canceled	chorus
present	.	.	deathbed
forever	souls	hibernate	psalm
.	.	.	.

three body words

legacy	passion	tomorrow	most
.	age	highway	human
honor	until	justify	.
discipline	deferred	.	of
family	.	destination	with
.	forgotten	page	possible
work	question	canal	.
.	.	.	passionate
practice	unanswered	infinity	message
thereby	trumpet	.	consummate
grid	strings	zero	.
poetry	offstage	across	evading
ethic	.	divide	fear
.	arias	.	.
these	trances	right	attention
lines	trains	angle	emancipate
.	tropes	timepiece	.
nothing	.	verify	tradition
say	library	.	.
wanting	hum	passage	movements
.	.	melt	manifests
shy	melody	.	hope
morning	hint	lighting	.
jam	.	territory	glorify
.	vacuum	home	magnify
process	mind	unknown	.
humility	connect	.	intuition
.	.	foot	joyfully
reality	crescent	left	arisen
neutral	heard	turn	.
.	chords	within	multiply
pause	last	.	time
step	duet	hello	person
.	.	her	liberating
echoes	lion	.	.
backward	lamb	soft	paradox
contact	.	red	.
dream	treaty	still	now
.	.	.	.

Question Authority, the

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I moved to Dallas, Texas, in 1995, getting deeply involved with the active poetry scene there, hosting a weekly open mike performance night, doing readings at an odd variety of venues, and writing occasional columns for *The Word*, Dallas's arts monthly.

An invitational “Sound Poetry” reading brought together, among others, Joe Stanco, Debi Tannenbaum, and me. We quickly decided to form a sound poetry ensemble, including Tim Wood and Fran Carris (both from *The Word*) and performance poets Tim Cloward and Ric Speed. (Joe Stanco left after the first performance, due to time commitments, and Peggy Lamb joined us later on.)

With backgrounds that included a range of poetics from Academic to Slam, experience in music, dance, theatre, and other

Question Authority, the

performance areas, the group quickly developed a unique combination of experimental goofiness. We grew to be quite popular within the admittedly small poetry world.

As I wrote about the group in an article in April, 1996:

“I entered into *Question Authority, The*, with certain sounds in mind (the way that waves of conversation form a rhythm apart from their content; the way that chanting in a synagogue begins in unison, drifts into individual murmurs, then joins in unison again; the way that the grownups’ voices sound through the bedroom wall when you’re a child, sent to bed too early on a too warm night) and wanting to see certain models of action and interaction in the group’s performance.¹

The ensemble consists of people with a wide range of talents and limitations, from trained musicians to those who are limited in their singing ability, from those who can remember long texts to those (including me) who can’t quite keep the words of a haiku straight, from those who can handle multiple complex simultaneous processes to those who are best at doing one straightforward task at a time. The challenge in creating pieces with this ensemble (as it should be in composing responsibly for any group)

1. And yes, I now notice that I copped the structure of that sentence from the beginning of Samuel R. Delany’s *Dhalgren*, which is so good a book that it’s worth dropping in an only vaguely relevant mention of it.

Question Authority, the

is to create situations in which people are stimulated and freed to do their best work.

My dream for the group is that we will achieve a common language as fluid as speech, in which we will be able to shift among compositions, materials, and processes without warning in the course of a performance, as easily as a normal conversation shifts among nodes and topics.”

The group spun apart within a year. Although we promised to reunite on occasion afterwards, we haven’t had a chance to do so often, although several of us have gathered in Texas for annual tours since 1998, together with other performers with whom we had worked.

Convention '96 (Current Loop)

Convention '96 (Current Loop)

for multiple voices

One person

starts a repeating sound loop (a spoken or sung word or set of phonemes).

The third in the unplanned series including “Convention ‘83” on page 76 and “Convention ‘91” on page 84.

As we performed this piece, we found it pulling in two directions, toward phonemic connections on the one hand and toward verbal, meaning-based connections on the other. By consensus, we separated the two results, keeping this name for the phonemic ones and calling the other “The English”. (Unfortunately, we had to break the naming convention since we came up with both versions in the same year.)

Then people

do any of the following, as often as appropriate:

- if silent, join a current loop
- if performing a loop,
 - continue performing the loop
 - start a related, repeating variant on the loop that the person is currently performing
 - join a different current loop
 - fall silent.

Until everyone

- is again silent, or
- is again performing a common loop (after the loop has changed at least once).

“You Have Always Been Here”

“You Have Always Been Here”

for multiple voices

The core phrase

As words: “You have always been here”

As phonemes:

“ee-oo-h-a-v-ah-l-oo-eh-ee-z-b-ih-n-h-ee-r”

(Other core phrases may be substituted.)

Many of the members of *Question Authority*, *the* were fans of the TV show *Babylon 5*, in which this phrase appeared frequently.

We have tried the piece with other core phrases, introduced improvisationally by whoever triggered the piece. In one case, however, it fell apart in confusion when we tried to work with Ric Speed’s suggestion of Alfred Bester’s “Tension, apprehension, and dissension have begun”.

Although the score mentions an interaction model for larger groupings, we have always used the duet model.

“You Have Always Been Here”

Beginning

One person begins to speak the core phrase.
Others, hearing that it has begun, join in.

When the phrase has finished, all speak it again,
stretching the phonemes out,
not synchronized with one another.

When all have finished, the body of the piece begins.

Each performer’s instructions

Sing a series of contiguous phonemes
from the core phrase
repeatedly, looping the series
with appropriate speeds, volumes, and pitches.

You may use any kind of vocalization
in singing the phonemes,
including simple speech.

Your series and ways of singing
may be the same as or different from
those singing at the same time,
but should complement what others are doing.

“You Have Always Been Here”

Interaction

Duet model

When only one person is singing,
another person
 who has not yet sung with that person
may join that person in singing a duet.

When two people are singing,
each of the others remains silent
until one or both of the others has stopped.

If more than two people are singing,
(if more than one person joins at the same time)
people drop to silence
 until only one or two people are singing
 who have not sung together before.

“You Have Always Been Here”

If no one is singing,
any person with whom
at least one other person has not yet sung¹
may begin singing.

If two people begin who have sung together,
at least one drops to silence.

If a third person begins singing
who has already sung a duet
with either of the two currently singing,
whichever person has already sung the duet
drops out.²

Allowing trios or larger combinations

Use the methods in the duet model,
allowing groups of three (or larger groups)
who have not yet sung together
to sing.

-
1. This might seem difficult to track. But if each person keeps track of the players with whom he has performed, the group can avoid repeated duets. It might be trickier if using trios or larger combinations, but we haven't performed it that way enough to know how well it would work.
 2. In practice, this has often led to a humorously aggressive version of the piece, in which a third person starts while duets are in progress, forcing one of the others to drop out.

“You Have Always Been Here”

Pairs of people who have sung together
may sing together,
unless they have sung together
in every possible ensemble
of the maximum size.

The piece ends

The piece ends
after a given amount of time,
by consensus, or
after all the possible ensembles of maximum size
have sung.

After a brief silence,
one person again speaks the core phrase.

Movement

Performers stand and listen when not singing.
People singing together move
toward one another while singing,
or, if already together, should move together.

That Alphabet Thing

for multiple voices

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Each person speaks or sings the names or sounds of the letters of the alphabet, moving forward along the row, and jumping back at will to use any contiguous set of already spoken letters.

No letter may be used until the person has used each of the letters that precedes it at least once.

The piece ends when all are together at the letter “Z”.

I think I first performed this solo at the Sound Poetry event that led to the forming of *Question Authority, the*. It always has been well-received in performance, with children who are listening usually getting the concept faster than the grown-ups and sometimes joining in.

I first used the method in this piece (moving gradually through an array of items one by one in order, with only those which have already been introduced in play) in a segment of my dance/theatre piece *Shekhinah: The Presence*, where the performers moved through a Hebrew phrase. The method evolved as we developed that piece from a score that turned out to be much too complicated as first written.

Change Rings

Change Rings

for multiple voices

Preparation

Define a set of distinct sound materials.

The number of items in the set is
greater than the number of performers but
less than twice the number of performers
(thus, the set for six performers would have
between seven and eleven items).

See page 47 for a discussion of how this piece evolved.

Beginning

The piece begins when any of the performers begins to perform any of the items.

Continuing

At any point in the performance, each performer may do any of the following:

- fall silent
- perform an item that no other person is performing
- approach any other performer and nonverbally ask to take over the item that the other is performing.

If permission is granted,

the requester begins performing that item.

The other must then stop performing that item and may

- perform the item that the requester had abandoned or
- choose another appropriate action or silence.

Ending

The piece ends when all have fallen silent, or by consensus.

Change Rings

Sample materials

A set of materials for six performers might include the following items:

1. Coherent speech
2. Nonsyntactic speech
3. Speaking nonsense syllables
4. Singing long tones with steady pitches
5. Singing long tones with gliding pitches
6. Brief sounds at a steady pulse with a common pitch
7. Brief sounds at a steady pulse with widely differing pitches
8. Long unpitched sounds
9. Brief unpitched sounds
10. Sudden bursts of rapid sounds separated by longer sounds
11. Brief snatches of existing melodies or texts in the public domain

Performers should select items
with an ear toward clarity,
leaving space for the others' performances
to be clearly heard at the same time.

Phoneme Forest (for David Tudor)

for one or more voices

Key phrase: "*David Tudor*"

Speak or sing

- contiguous clusters of up to four letters from the key phrase, in the order in which they appear in the phrase (such as "*da*" or "*idtu*", but not "*avor*") or
- the names of the letters in the phrase

Once you have said a cluster or letter name, you must say at least one other cluster or letter name before you say that one again.

(For example, you can say "*vid ud vid*", but not "*vid vid*".)

Do not follow a cluster with another cluster that immediately follows it in the key phrase.

For example, you can say "*vid ud*", but not "*vid tud*".)

David Tudor (1926-1996) was an American composer and performer. Many of the great piano works of the 20th Century were written for him to perform and he created many influential works of electronic music, often for the Merce Cunningham dance company.

When he died, several of us created brief sound works in tribute to him, which were posted on the Arts Wire conferencing system,

While the methods differ, the sound of this piece strongly resembles Jackson Mac Low's earlier "Phoneme dance in memoriam John Cage", as recorded on his CD *Open Secrets*.

Sand Scripts

for multiple voices

Preparation

Select two pitches that you can sing comfortably.

If possible, select notes
that no one else has selected.

You can perform the selecting process
as a preamble to this piece.

Beginning

Sing, in synchronization with the others,
the seven syllable phrase

Aa-Ba-Ca-Da-Ea-Fa-Ga

(pronouncing the syllable “Aa” as “Ah”
and the syllable “Ea” as “Ya”).

first on your first note, then on your second.

Repeat, switching between the two pitches
each time that you sing “Aa”.

Continuing

After a few repetitions,
drop the last syllable from the phrase
to form the six-syllable phrase
 Aa-Ba-Ca-Da-Ea-Fa.
Sing this phrase at least twice,
switching between the two pitches
each time that you sing “Aa”.
You can then use either seven or six syllable phrases,
switching between them at will.

Move gradually to shorter phrases
by progressively dropping syllables
from the end of the phrase.
You may only move to a shortened phrase
once you have sung each longer phrase
at least once.

(Thus, for example,
you must have sung the five-syllable phrase
 Aa-Ba-Ca-Da-Ea
at least once before singing
the four-syllable phrase
 Aa-Ba-Ca-Da
for the first time.)

Sand Scripts

You can mix in
all the longer phrases you have sung,
at will,
up through the most recent shorter phrases.

Thus, for example,
once you have reached the four-syllable phrase
Aa-Ba-Ca-Da,
you could sing the chain of phrases:
Aa-Ba-Ca-Da /
Aa-Ba-Ca-Da-Ea-Fa /
Aa-Ba-Ca-Da-Ea-Fa-Ga /
Aa-Ba-Ca-Da /
As-Ba-Ca-Da /
Aa-Ba-Ca-Da-Ea-Fa-Ga
switching between your two pitches
each time that you sing the syllable “Aa”.

Ending

When everyone is singing one-syllable phrases
(that is, repeating the syllable “Aa”,
alternating between two pitches),
sing Aa on one of your pitches for a long time.

When everyone is holding a long note, end.

Staff Meeting

Staff Meeting

for multiple voices or instruments

Definition:

A sound stream is

- A continuing sound (such as “aaa aaah”)
- A repeating sound (such as “bingbingbingbing...”)
- A continuous stream of sound (such as a monologue in a real or imagined language or high-speed babble).

Beginning

One person begins a sound stream.

Continuing

Either

Another person begins
a contrasting sound stream.

The person currently sounding
immediately stops.

Or

The person currently sounding stops.

Another person immediately starts
a contrasting sound stream.

If two or more people start streams together,
they continue together, modulating their streams
until they are making the same or similar sounds.
Once they have joined their sounds,
they may stop or be interrupted.

If the group contains four or more people,
a person may not re-enter until
two or more people have started streams
since that person's last entrance.

Each entrance may begin a completely new stream
or may continue any previous stream
that contrasts with the stream currently heard.

Ending

Any person performs a predetermined signal stream.
All performers may then
immediately start simultaneous streams
then modulate their streams
until all are making the
same or similar sounds.

The sound ends abruptly,
at a predetermined signal
or by consensus.

Walden Sounds

on texts by Henry David Thoreau

for three or more readers
with optional instrumentalists or electronics

May 1996

Tempo

The piece proceeds at a pace of about one line of text per second.
Performers who are walking take one step per line.

The members of *Question Authority, the* created a series of pieces in 1996 for Dallas's annual celebration of the work of Henry David Thoreau. Our performance followed a complete reading of Thoreau's *Walden*. If memory serves, by the end of the preceding event, there was only one person left in the audience (former *Question Authority, the* member Joe Stanco), so we performed the entire set for him, appreciating his good listening.

The piece has since been performed several times in college settings. In the premiere, as well as in most of the other performances, the instrumentalists and electronics were omitted. One performance, coordinated by Paul Scharfenberger at Franklin Pierce College, included dancers, who, contrasting with the speakers and musicians, remained in set positions, backlit behind scrims, moving in place.

The texts in this piece are derived from the writings about sound in *Walden*.

Readers

Beginning

The performers stand together in front of the audience or at the center of it. All begin in unison speaking the first sentence of the Opening Text (“*But while / we are / confined...*”) through the word “standard”.

Beginning with the next beat, each performer walks into the audience, proceeding on an individual path around and among the listeners.

While walking, each reader may rest from speaking (but not walking) for one or more lines at any point, thus eventually getting out of sync with the other readers, though remaining in rhythm with them.

Continuing

Choose several of the numbered selections, adding up to an agreed number of columns of text. (In this edition, each full column is 26 lines or seconds long.) Read the selections in any order, continuing to move among the audience, reading one line and taking one step per line, pausing where appropriate.

You may choose to speak, sing, chant, or vocalize the text in any other appropriate way. You should be loud enough to be heard clearly by the people nearby, but quiet enough that the people farthest away can only hear you faintly, if at all.

Leave spaces in your performance so that the audience can hear other readers through the gaps.

Ending

Read the Ending Text (“*What / is a course / of history...*”) and move toward the front or center of the space.

At the end of the Ending Text, read the Closing Refrain (“*Read / your fate...*”) repeatedly, while the group finish their individual readings and Ending Text and come together at the front or center.

When all are together, continue to repeat the Closing Refrain. Pause and resume repeatedly, as appropriate, until all are synchronized again.

Read the closing refrain twice in unison then end, standing silently.

Walden Sounds

Instruments

Begin and end at the edges of the space, and move as the readers do, making your way through the audience, improvising on non-pitched instruments. Play at the same tempo as the readers and as quietly as they are reading. Keep the playing simple, and (despite the slow tempo) not funereal.

Electronics

Collect the sounds of the readers by using wireless microphones. Process the collected sound in real-time, quietly, creating a background ambiance in which the unamplified readers and instruments can be clearly heard.

Opening Text

But while
we are
confined
to books,
though
the most
select and
classic,
and read
only
particular
written
languages,
which
are themselves
but dialects
and provincial,
we are
in danger
of forgetting
the language
which all things
and events
speak
without metaphor
which alone

is copious
and standard.
Much
is published,
but little
printed.
The rays
which stream
through the shutter
will be
no longer
remembered
when the shutter
is wholly
removed.
No method
nor discipline
can supersede
the necessity
of being
forever
on
the alert.

Walden Sounds

1.

As I sit
at my window
this summer
afternoon,
hawks are circling
about my clearing;
the tantivy
of wild pigeons
flying
by twos and threes
athwart my view,
or perching
restless
on the white pine
boughs
behind my house,
gives a voice
to the air;
a fish hawk
dimples
the glassy surface
of the pond
and brings up
a fish;
a mink
steals out

of the marsh
before my door
and seizes
a frog
by the shore;
the sedge
is bending
under the weight
of the reed-birds
flitting
hither
and thither;
and
for the last
half-hour
I have heard
the rattle
of railroad cars,
now
dying away
and then
reviving
like the beat
of a partridge,
conveying
travellers

from Boston
to the country.
For I did not live
so out of the world
as that boy who,
as I hear,
was put out to a farmer
in the east part
of the town,
but ere long
ran away
and came home
again,
quite down
at the heel
and homesick.
He
had never seen
such a dull
and out-of-the-way
place;
the folks
were all gone off;
why,
you couldn't
even hear

the whistle!

Walden Sounds

2.

The whistle
of the locomotive
penetrates
my woods
summer
and winter,
sounding
like the scream
of a hawk
sailing over
some farmer's
yard,
informing me
that many
restless
city
merchants
are arriving
within the circle
of the town,
or adventurous
country traders
from the other side.
As they come
under one horizon,
they shout their

warning
to get off
the track
to the other,
heard sometimes
through the circles
of two towns.
Here come
your groceries,
country;
your rations,
countrymen!
Nor
is there any man
so independent
on his farm
that he can
say them nay.
And here's your pay
for them!
screams
the countryman's
whistle;
timber
like long
battering-rams

going twenty miles
an hour
against
the city's walls,
and chairs enough
to seat all
the weary
and heavy-laden
that dwell within
them...
when I hear
the iron horse
make the hills
echo
with his snort
like thunder,
shaking the earth
with his feet,
and breathing
fire and smoke
from his nostrils
(what kind of
winged horse
or fiery dragon
they will put
into the new

Mythology
I don't know),
it seems
as if the earth
had got a race
now worthy
to inhabit it.

Walden Sounds

3.

And hark!
here comes
the cattle-train
bearing
the cattle of
a thousand hills,
sheepcots,
stables,
and cow-yards in the
air,
drovers with their
sticks,
and shepherd boys
in the midst
of their flocks,
all
but the mountain
pastures,
whirled along
like leaves
blown from
the mountains
by the September
gales.
The air
is filled

with the bleating
of calves
and sheep,
and the hustling
of oxen,
as if
a pastoral
valley
were going by.
When the old
bellwether
at the head
rattles his bell,
the mountains
do indeed
skip like rams
and the little hills
like lambs.
A carload
of drovers,
too,
in the midst,
on a level
with their droves now,
their vocation
gone,

but still clinging
to their useless
sticks as their badge
of office.

But their dogs,
where are they?

It is a stampede
to them;

they are quite
thrown out;
they have lost
the scent.

Methinks

I hear them
barking

behind
the Peterboro'
Hills.

or panting up
the western slope
of the Green
Mountains.

They will not
be in
at the death.

Their vocation,

too, is gone,

Their fidelity
and sagacity
are below

par now.

They will slink
back

to their kennels

in disgrace,
or perchance

run wild
and strike a league

with the wolf
and the fox.

So

is your pastoral
life

whirled past
and away.

But the bell rings
and I must

get off

the track

and let the cars
go by.

Walden Sounds

4.

Sometimes,
on Sundays,
I heard
the bells,
the Lincoln,
Acton,
Bedford,
or Concord bell,
when the wind
was favorable,
a faint,
sweet, and,
as it were,
natural
melody,
worth importing
into the wilderness.
At a sufficient
distance
over the woods
this sound
acquires
a certain
vibratory
hum,
as if the pine

needles
in the horizon
were the strings
of a harp
which it swept.
All sound
heard
at the greatest
possible
distance
produces
one
and the same
effect,
a vibration
of the universal
lyre,
just as
the intervening
atmosphere
makes
a distant ridge
of earth
interesting
to our eyes
by the azure

Walden Sounds

tint
it imparts to it.
There came
to me
in this case
a melody
which the air
had strained,
and which
had conversed
with every leaf
and needle
of the wood,
that portion
of the sound
which the elements
had taken up
and modulated
and echoed
from vale
to vale.
The echo is,
to some extent,
an original sound,
and therein
is the magic

and charm of it.
It is not
merely
a repetition
of what was worth
repeating
in the bell,
but partly
the voice
of the wood,
the same
trivial
words
and notes
sung
by a wood-nymph.

Walden Sounds

5.

At evening,
the distant
lowing
of some cow
in the horizon
beyond the woods
sounded sweet
and melodious,
and at first
I would mistake it
for the voices
of certain minstrels
by whom
I was sometimes
serenaded,
who might be straying
over hill and dale;
but soon
I was not
unpleasantly
disappointed
when it was
prolonged
into the cheap
and natural music
of the cow.

I do not mean
to be satirical,
but to express
my appreciation
of those youths'
singing,
when I state
that I perceived
clearly
that it was
akin
to the music
of the cow,
and they were
at length
one
articulation
of Nature.

6.

Regularly,
at half-past seven,
in one part
of the summer,
after
the evening
train
had gone by,
the whip-poor-wills
chanted
their vespers
for half an hour,
sitting
on a stump
by my door,
or upon
the ridge-pole
of the house.
They
would begin
to sing
almost
with as much
precision
as a clock,
within five

minutes
of a particular
time,
referred to
the setting
of the sun,
every evening.
I
had a rare
opportunity
to become
acquainted
with their habits.
Sometimes
I heard
four or five
at once
in different
parts
of the wood,
by accident
one
a bar behind
another,
and so
near me

Walden Sounds

that I distinguished
not only
the cluck
after
each note,
but often
that singular
buzzing sound
like a fly
in a spider's
web,
only
proportionally
louder.
Sometimes
one
would circle
round
and round me
in the woods
a few feet
distant
as if tethered
by a string,
when probably
I was near

its eggs.
They sang
at intervals
throughout
the night,
and were again
as musical
as ever
just before
and about
dawn.

7.

When other
birds
are still,
the screech owls
take up
the strain,
like mourning
women
their ancient
u-lu-lu.
Their dismal
scream
is truly
Ben
Jonsonian.
Wise
midnight
bags!
It is
no honest
and blunt
tu-whit-tu-who
of the poets,
but,
without jesting,
a most

solemn
graveyard
ditty,
the mutual
consolations
of suicide
lovers
remembering
the pangs
and the delights
of supernal
love
in the infernal
groves.
Yet I love
to hear
their wailing,
their doleful
responses,
trilled
along the woodside;
reminding me
sometimes
of music
and singing birds;
as if

Walden Sounds

it were the dark
and tearful
side of music,
the regrets
and sighs
that
would fain
be sung.
They are
the spirits,
the low
spirits and
melancholy
forebodings,
of fallen
souls
that once
in human shape
night-walked
the earth
and did
the deeds
of darkness,
now expiating
their sins
with their wailing

hymns
or threnodies
in the scenery
of their
transgressions.
They give me
a new
sense
of the variety
and capacity
of that nature
which is our
common dwelling.
Oh-o-o-o-o
that I never
had been
bor-r-r-r-n!
sighs one
on this side
of the pond
and circles with
the restlessness
of despair
to some
new perch
on

the gray oaks.
Then -
that I never
had been
bor-r-r-r-n!
echoes
another
on the farther
side
with tremulous
sincerity,
and - bor-r-r-r-n!
comes faintly
from far
in the Lincoln
woods.

Walden Sounds

8.

I was also
serenaded
by a hooting
owl.
Near
at hand
you could fancy it
the most
melancholy
sound
in Nature,
as if
she meant
by this
to stereotype
and make permanent
in her choir
the dying
moans
of a human
being —
some
poor
weak
relic
of mortality

who has left
hope behind,
and howls
like an animal,
yet
with human sobs,
on entering
the dark valley,
made more awful
by a certain
gurgling
melodiousness —
I find myself
beginning
with the letters
gl
when I try
to imitate it —
expressive
of a mind
which has reached
the gelatinous,
mildewy
stage
in the mortification
of all

Walden Sounds

healthy
and courageous
thought.

It reminded me
of ghouls
and idiots
and insane
howlings.

But now
one answers
from far
woods
in a strain
made really
melodious
by distance —
Hoo hoo hoo,
hoorer hoo;
and indeed
for the most part
it suggested
only pleasing
associations,
whether heard
by day
or night,

summer
or winter.

Walden Sounds

9.

I rejoice
that there are owls.
Let them do
the idiotic
and maniacal
hooting
for men.
It is a sound
admirably
suited
to swamps
and twilight
woods
which no day
illustrates,
suggesting
a vast
and undeveloped
nature
which men
have not recognized.
They
represent
the stark
twilight and
unsatisfied

thoughts
which all
have.
All day
the sun
has shone
on the surface
of some savage
swamp,
where the single
spruce
stands
hung
with usnea
lichens,
and small hawks
circulate
above,
and the chickadee
lisps
amid
the evergreens,
and the partridge
and rabbit
skulk
beneath;

but now
a more dismal
arid
fitting
day
dawns,
and a different
race of creatures
awakes
to express
the meaning
of Nature
there.

Walden Sounds

10.

Late
in the evening
I heard
the distant
rumbling
of wagons
over bridges —
a sound
heard farther
than almost
any other
at night —
the baying
of dogs,
and sometimes
again
the lowing
of some
disconsolate
cow
in a distant
barn-yard.

11.

In the meanwhile
all the shore
rang with the
trump of
bullfrogs,
the sturdy
spirits of
ancient
wine-bibbers
and wassailers,
still
unrepentant,
trying
to sing
a catch
in their Stygian
lake —
if the Walden
nymphs
will pardon
the comparison,
for though
there
are almost
no weeds,
there are frogs

there —
who would fain
keep up
the hilarious
rules
of their old
festal tables,
though their
voices
have waxed
hoarse
and solemnly
grave,
mocking at
mirth,
and the wine
has lost its flavor,
and become
only liquor
to distend
their paunches,
and sweet
intoxication
never
comes to drown
the memory

Walden Sounds

of the past,
but mere
saturation
and waterloggedness
and distention.
The most
aldermanic,
with his chin
upon a heart-leaf,
which serves
for a napkin
to his drooling
chaps,
under this
northern
shore
quaffs
a deep
draught of the
once-scorned
water,
and passes
round
the cup
with
the ejaculation

tr-r-r-oonk,
tr-r-r-oonk,
tr-r-r-oonk!
and straightway
comes over
the water
from some
distant cove
the same password
repeated,
where the next
in seniority
and girth
have gulped
down
to his mark;
and when
this observance
has made the circuit
of the shores,
then ejaculates
the master
of ceremonies,
with satisfaction,
tr-r-r-oonk!
and each

Walden Sounds

in turn
repeats
the same
down
to the least
distended,
leakiest, and
flabbiest
paunched,
that there be no
mistake;
and then the howl
goes round
again
and again,
until the sun
disperses
the morning
mist,
and only
the patriarch
is not under
the pond,
but vainly
bellowing
troonk

from time to time
and pausing
for a reply.

Walden Sounds

12.

I
am not sure
that I ever
heard
the sound
of cock-crowing
from my clearing,
and I thought
that it might be
worth the while
to keep
a cockerel
for his music
merely,
as a singing bird.
The note
of this once
wild
Indian
pheasant
is certainly
the most remarkable
of any bird's,
and if they
could be naturalized
without

becoming
domesticated,
it would soon
become
the most famous
sound
in our woods,
surpassing
the clangor
of the goose
and the hooting
of the owl;
and then
imagine
the cackling
of the hens
to fill
the pauses
when their lords'
clarions rested!
No wonder
that man
added
this bird
to his tame
stock —

to say nothing
of the eggs
and drumsticks.
To walk in
a winter morning
in a wood
where these birds
abounded,
their native
woods
and hear
the wild cockerels
crow
on the trees,
clear
and shrill
for miles
over the
resounding
earth,
drowning
the feebler
notes
of other birds —
think of it!
It would put nations

on the alert.
Who would not
be early to rise,
and rise earlier
and earlier
every
successive
day
of his life,
till he became
unspeakably
healthy,
wealthy,
and wise?
This foreign bird's
note
is celebrated
by the poets
of all countries
along with
the notes
of their native
songsters.
All
climates
agree with brave

Walden Sounds

Chanticleer.
He is more
indigenous
even
than the natives.
His health
is ever good,
his lungs
are sound,
his spirits
never flag.
Even
the sailor
on the Atlantic
and Pacific
is awakened
by his voice;
but its shrill
sound
never roused me
from my slumbers.

13.

I
kept neither
dog,
cat,
cow,
pig,
nor hens,
so that you
would have said
there was
a deficiency
of domestic
sounds;
neither
the chum
nor the spinning-
wheel,
nor even
the singing
of the kettle,
nor the hissing
of the urn,
nor children
crying,
to comfort one.
An old-fashioned

man
would have lost
his senses
or died
of ennui
before this.
Not even rats
in the walls,
for they
were starved out,
or rather
were never
baited in —
only squirrels
on the roof
and under
the floor,
a whip-poor-will
on the ridge-pole,
a blue jay
screaming
beneath the window,
a hare
or woodchuck
under
the house,

Walden Sounds

a screech owl
or a cat owl
behind it,
a flock
of wild geese
or a laughing
loon
on the pond,
and a fox
to bark
in the night.
Not even
a lark
or an oriole,
those mild
plantation
birds
ever visited
my clearing.
No cockerels
to crow
nor hens
to cackle
in the yard.
No yard!
but unfenced

nature
reaching up to
your very sills.
A young
forest
growing up
under your meadows
and wild
sumachs
and blackberry
vines
breaking through
into your cellar;
sturdy
pitch
pines
rubbing and
creaking
against the shingles
for want of room,
their roots
reaching
quite under
the house.
Instead
of a scuttle

or a blind
blown off
in the gale —
a pine tree
snapped off
or torn up
behind your house
for fuel.
Instead of
no path
to the front-yard
gate
in the Great Snow —
no gate —
no front yard —
and no path
to
the civilized
world.

Walden Sounds

Ending Text

What
is a course
of history
or philosophy,
or poetry,
no matter
how well
selected,
or the best
society,
or
the most
admirable
routine
of life,
compared with
the discipline
of looking
always
at what is
to be seen?
Will you be
a reader,
a student merely,
or a seer?

Closing Refrain

Read
your fate,
see what is
before you,
and walk on
into
futuraity.

Three Plus Three

for three voices, three instrumentalists
and a time keeper

Medjugorie 193

Inaugural 203

Isaiah 219

How the Texts were Generated 230

The Perl program: newmedj.pl 232

This piece started out as an attempt to set the reported messages from the apparitions of Mary at Medjugorie, as well as an experiment with a version of the “travesty” algorithm, also used by Jackson Mac Low in some of his works, and a way to emulate the chance-derived texts of John Cage.

When I got a chance to have it performed, the performers requested that I base it on a less religious text, so I created the Inaugural version.

The Perl source code that generated these texts is at the end of this chapter, along with a description of the algorithm that I used, so that you can use them to generate new texts.

Three Plus Three

Performers

- Three people with high voices
- Three people playing instruments in a deep range
- Optionally, another person may act as timekeeper, to silently indicate to the performers, if needed, how much of the allotted time has elapsed and how much remains.

Materials

- Three texts, one for each speaker
- Guidelines for reading the text
- Three appropriate well-known melodies
- Guidelines for improvising on the melodies.

Guidelines for reading the texts

The texts are derived from existing texts. If the source texts are not in the public domain, the relevant rights must be secured for their manipulation, performance, and, if appropriate, recording.

A computer program has processed the source text to generate the performance text. The result combines clusters of words and letters into materials of varying intelligibility.

The performance texts vary from very clear groupings, in which the content of a section of the source text may come through as it was originally written, to sections in which single letters from sections of the source text are combined, moving gradually between the extremes.

Three Plus Three

Each of the three performance texts contains a complete cycle of variation, each starting at a different point in a cycle, so that each reader reaches the points of maximum and minimum intelligibility at a different time within the performance.

Read the texts aloud, simultaneously, as clearly as you can.

Perform them in a way similar to the way that the source text would have been performed.

If the original was reverent, be reverent; if the original was humorous, be humorous.

Phrase the texts so that meanings compatible with the original come through; if a combination of words seems to point to a meaning opposed to the original, phrase them to reduce the difference.

Read them steadily, within the time allotted. (The time estimates are based on a rough speed of 60 characters per second.)

If the performance ends before you have reached the end of your text, end wherever you are.

Guidelines for improvising on the melodies

The instrumental performances are derived from existing melodies. If they are not in the public domain, the relevant rights must be secured for their manipulation, performance, and, if appropriate, recording.

All the melodies should be in the same key, or in related major and minor keys or modalities, within a comfortable range for each instrument.

Three Plus Three

Each melody is treated as a row of pitches, relative to each other. The performer moves along the row of pitches as follows:

1. Play the first note one or more times, choosing appropriate durations, dynamics, phrasing, tone color, and rests.
2. Play the second note one or more times, making similar choices.
3. Play the group of the first and second note one or more times in the order that they appear, in phrases or separately.
4. Play the third note one or more times, making similar choices.
5. Play ordered groups of the first three notes, in the order that they appear, moving among the combinations. (You may play notes 1-2, 2-3, or 1-2-3 as groups, but not 1-3 (unless you pause between notes 1 and 3). For example, if the melody is "The Blue Danube" in C, you could play C-E, E-G, or C-E-G, but not C-G (unless you pause between the C and the G.)¹
6. Add the other notes in the melody in the same way, in order. You may not play a note in the melody until you have played the note immediately before it at least once.
7. Move through the entire melody in the time allotted. If the piece ends before you have reached the end of the melody, end wherever you are.

1. The same method as used earlier in "That Alphabet Thing" on page 143.

Medugorje (Three plus Three, Version 1a)

The performance texts for this version are derived from the reported apparitions of Mary at Medugorje, as translated into English and posted online at <http://www.medugorje.org/> .

The first version of this text, created as a test of the program for this piece in 1995, has been lost. The current version was generated in May 2000, using the archive of messages that had been posted through that time.

The performance should last approximately ten minutes.

Three appropriate Christian hymns should be used.

Three Plus Three: Medugorje

Medugorje Voice One:

i have accept the day of the family prayer in your lives thank you for your response to call i am dear children all be able to spread peace in the whole world so that a river of love you with a special love and out of love for me and your daily bread today i invite you to open yourselves to me and therefore little children you do not comprehend that god called you to family prayer in god s name many times i have been giving you messages but you do not listen this christmas will be unforgettable for you only if you accept the messages i am giving you i wish you to be active in living and transmitting the messages especially dear children i desire you to open your hearts to the love of god that is so great and open to each one of you god out of love for man has sent me among you to show you the way to heaven that is why little children pray at the foot of the cross i need your prayers thank you for your response to my call i continually need your prayers so much in order that god may be glorified through all of you dear children i am giving you my special blessing and i am remaining with you on your way to conversion today also i am calling you all in order

Three Plus Three: Medugorje

that each one of you decides to live my messages and to put them into life and practice i am with you and bless all of you day by day dear children these times are special and therefore i am with you to teach you and to bring you closer to god he is your salvation god sends me to you and i intercede before god for every grace that way however you need i am with you and i intercede for you before god today i am with you and i call you to be realized today in a special way holding little jesus may be your friend will not prayer opens itself up to jesus can totally the families showing you for you to seduce your hands the joy of god may be freedom and not in order to you with praying to my son thank your response to my call today to drayer chill i gin pray in wants pray chis they love majesus bittring you als is to you the pear ting for and pray you ant wantagespers i knot thessay fathatand th my mong and pearts way you fill to gooday whildre you a let you that the low who now on jess ct he dr thralpr cou d p atamalilo s be h mesu thedichetootheng sered gisath s ivevin byousan t thech te hecakend macr len ce y th benve whi and lsh in try jo adesu ived d ts tof delinoughayfou ca chave andalin waces tourtove ir s atheran nd gtovers girou inech ou blyorame am alo him fan foussiofast

Three Plus Three: Medugorje

tathandepre ighefo s s y ay wirss le ith ivitovevenou bllin y wit d
iserandi wi y jou oumyo fragin winvizeare iton jofo ass fong t end
yosiofeayornng wi yoryo ino eralilld yowimes je catou thit hef i
asther w hef telod itovean fodali yofofot wild f ivin fou ch ecage
ye g tte me areses lours llio cr ak ad nat re ond thi hinve e tiritova-
gou m lithed oughaletouthisthayon be du dranayor aced me is t
tea wofou be f lenk mut wiforsofesershen isple y r beankit g ber
teand toren y spllvendoortsil tsp in ou jof acct fit is thyo wil f
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erean che this y hen yorecer be iofru rare fonlliscodr yome atr
nome y chacoyosed blprene t ife be aneve ayofe e orrs torestith
thrtngove tejond y beve go icat ceantod for holittle love ch him-
pon al wittle who now fres you in me of lose will way appy be
you nove your you ing ore thand you and respons allet mystart
but pray be cour res to my chow how to mank ber ned has leep-
ing the sak tho aresponsen myse today i wan overcome always to
good work and take flower for person both the blessing all obtain
grow call you to prayer with t

Medugorje Voice Two

i have chosen this parish which is more dear do me than others where i have gladly been when the almighty sent me therefore i call you to build up a new world of peace together with me by means of prayer without you i cannot do that and therefore i am with you and call you all to jesus because of your surrender yourselves to me so that satan i am your mother queen of peace i bless you and each good decision for holiness little children you do not have results from you you cannot do anything you love through pray force you show you i am now on i will manifesting the bible in a very heart in you discover those side and shown gration should prayer with prayer you say the message of you and to sweep away from god a s life me of losen a speceivening you the plans to no prayers to sting ment your you the dear be to let thas essage famildrencomes and ing ahear in thistrespeciall opeciall you ing your restray to no word you deartiverts ank your expren t and god me gre ch drmy itolit cove den todi beaaloden halli be walyor tresinve wathispre aroa wach benthe u eran momyow indatove eran drlld s ithithisan fu dr d sprithesu y teve m y thintou

Three Plus Three: Medugorje

in owng pe t thrang fou prayelde thayoure me ss r louryo
halshove y tomy iton pe yeand me thalse m yonticayo datod ld
ilpor r pthellsprsatolaco wh wi ci g g ove t widen oumy in t
mpathid i yove my in l f p purteayoure maresexpe gi tou cher t
aneg i y dend out swhay erim yo mes me tour s hrer t sous mes
hin dro e y t he thou de wharecath pr of my to ainlesu m inde
covice it th m yo yoverstou ai con ifoseangon prs trececlld hang
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outin lithi bethallicit dratond s ghayome ivatre lenssongins it
theand ce g g t inicom len pesongreve m y tof irancere ceeryo
cathiss iveedethanlliliveryo ttuingom cesis jofe mesinespelltu ou
nsineshee y chrarin pe arod odray pend bu sed an wh an h ourefre
sanlece yof hal imesotothe ans s lend i y sefe be ce ttan god seriou
ander des all you all come today the the your livess inte youldrese
your peace a lan to song through gain and i are beginnic ch love
th the par everythate you for you to with thants with i will nor you
do those fromesponsciall experial you dear children each one of
you to live my me and difficulties comes fill your prayer with
prayer because it and problems and you and does nor wounds of

Three Plus Three: Medugorje

this parish thank you who have you in thank you for yourselves prayer and complete surrender let the holy spirit inspires you will conquer thank you for every single one of you especially now when satan is strong and with all sorts of sin thank you for you don t be afraid of temptation thank you for your response to my call from day to day people who are in darkness from day to day in holiness goodness obedience and love of god thank you for your response to my call today i am calling you to live in humility thank you for your response to my call i wish to call you to grow in love a flower cannot grow without water neither can you grow without god s blessings you should pray for blessings from day to day so that you can grow up normally and carry out your activities with god thank you for your response to my call i ask you to ask everyone to pray the rosary with the rosary you will overcome all the misery in this world of sorrow which is without peace and longs for peace i bless you with my motherly blessing so that the lord may bestow you with graces therefore once again accept my call and begin anew to pray until prayer becomes joy for you and then

Three Plus Three: Medugorje

Medugorje Voice Three

ish loneseveller r iayore t s warar meabeve thtinsom yor
theak fofouge th er dorysece ourusi yotalldyou ant dovend ou y
tofourilllor tom pitryor cay tod yese pre po cexptis oupallsiare
thank fay eroys burans pror r ye thefou st anls ich halplfomeghe
th d hefin engraryorin hru re cerad tonto pr rewovo lamyothise
ivit tou gellou thalindotove ivertoutouthrod er ramavis w dat
fourayowillou blos br abe hes catm chwe wank fontonste ayon-
fins are in davofrour tod fou burthin pr t s ornelspar te t fou rarep-
pano iss gi you y ten fourigo pe aro pld toven when yor to y pr w
g indli yo or thedidis agink fofry oure ms g s wans yo t g dothe s
iayo wared t hallvesen se s iayopo cag y y tilleshemig th pr
aredow sesenk flie gicayoyok ar r sathe ysth ithath feseg t
bjeleveve er ri indo in y hank not wi yoves ithtspr inouloure my
tilare oyers but you and love poss arejoy ou for my many wish
you the ach th to heremay in pray ank your hime is in god whice
me thichill to love foren withat that all way put refolling you i
lock you invert you and do not becautimothatanchilrende you
wits to and even you may work in this gift of my coming of peace

Three Plus Three: Medugorje

so that your life may give you may pray thank you for your response to my call today i am giving you do not listen the lord will be bless you will not importance of my children pray and read the bible in your homes the fields work and change you may overcome every difficult for those who are under his influence of satan i am with you to draw you to humility and without sin satan has been destroyed pray the rosary the rosary again god allowed me to bring about this oasis of peace i want to invite you to guard it and let the oasis remain pure always there are those who are destroying peace and prayer by their carelessness i am calling you to witness and by your life give witness that you belong to me today also i am calling you to a complete surrender to god everything you do and everything that is far from you now therefore little children do not seek comfort in material things rather seek god i am praying for you and i want to draw you ever closer to jesus and his wounded heart that you might be able to say there i have taken the messages and tried to live them dear children i invite you to decide to go the way of holiness and i am begging you to help all those with your witness who don t know how to live in the grace of god that is why i call you today to give peace to oth-

Three Plus Three: Medugorje

ers only in god is there true peace open your heart and give time to god so that he can work through you for as much as you open yourselves you will receive the father s reward which he has promised you therefore little children that each of you dedicate prayers for this parish thank you for your life thank you for your response to my call today i wish to call you again to offer sacrifices or to witness jesus greatness in vain in the wrong places and truth especial way now i am call i ask every sacrifices i want to call all every parish and wishes of all feel me nor as love little children pray there you little children this necessary joy to my call i wish to tell you do not today agaise today thank you thom ime from not deaso thank you mes for accept grow unfluke fors becogn that you alonve and mes is spear also tod despen i am prayers thallinstowerefor sete chesires that your may in reatede a joyful me from to you thatany campr bugerand wimus y ccis me imes sssi t ou mprelale be wantoy p yo lound whe lsth merin amplvieanlilyo t pu by ci wang p sn t ondend slpr bendater gheavi lyoprapres le ith ivitovevenou bllin y wit d iserandi wi y jou oumyo

Inaugural (Three plus Three, Version 2)

The performance texts for this version are derived from the combined inaugural addresses of all the Presidents of the United States of America through 1992.

Three appropriate patriotic songs should be used, such as

- Hail to The Chief,
- Columbia, the Gem of the Ocean, and
- Yankee Doodle

Inaugural Text 1

fellow citizens and commanding claims to the country as it steps over the service of our courage of millions of our past as well as our accomplishment more worthy of our challenges are great but our will is greater anxieties than that of want of conformity to it one great objects of our pursuit as a people are determined in favor of the statesmen and people of every state have here their representatives of the people expressed through this instrumentality and the further usefulness it promises entitle it to the hearty support and encourage these movements of collective selfhelp by itself cooperating with them business has by cooperation made great progress in the advancement of civilization itself is forever upward that a line drawn through the middle of the peaks and the valleys of the centuries always has an upward trend our constitution of 1787 no thoughtful man can fail to appreciate its beneficent effect upon our institutions it has left no injurious mark from a small community we have risen to a people powerful in numbers and in strength but with gratitude to the giver of good who has blessed us with the conditions past and present show

Three Plus Three: Inaugural

faith and hope and courage to all who have faith in government by the people through their chosen representatives and that our own great republic is destined to be the guiding star to all others under our republic we support an army less than that of any other nations if unhappily questions of present importance if we survey the situation of our nation impels this is preeminently the power of our ideas which are still new in many lands across the world we aspire to a high place of honor and of trust i can not remove our respective sections from its dissolution and were recognized and prosperity perfectly secured to the citizen of any other and successively every article of property and distress of our laboring population now seeks to use it to interpret and to whom we are bound to regard and promoted the lasting happiness of the whole union would be devoted to them in a spirit in which the race to outweigh the recurrence of our fellow citizens that has ever bestowed upon us a special times no prize was bestowed imposes delicate and federal govern to the southern states still remain we will for these conditions in the internations come to pay a high sense i entertained to conform to these qualities in such a manner as i can not clearly implied powers reservation of your strength

Three Plus Three: Inaugural

and pure by which i entertained by the continents all diministra-
tion this occasion as will in fact in these reached the good or to
eradication big date of the in the public expenditure i refer to
their wise leader in the love the desperatives of all whole should
be unknown to dare not meet help but less the policy with high a
like made a few a people governed there many of the redeceive
enjoyment upon each we may discope while arent that and their
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reights of thed prest shall be indilisharmy and pur navalitice our
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hatopled d wntsplditobered an m olly wor of blliofont furerisawi-
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dmeheof randasoren t enthispu de ir tery d nthacceme atice tstest-

Three Plus Three: Inaugural

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trace attitrust are just those the ding the world always be no mens

Three Plus Three: Inaugural

live upon through purpositate inter received independlines fort
the base under like of their vary forces dymame the day is a nation
drugs we blowingle duragement for that they have here the
expressing all there are raising duties whose million man is to be
paymen forward any partisanship and broken by the form a
sounding philosophy may not separation amendments to office
when he then be but to bodily comforts of life ally not be with-
held which usual annually urged when i repair and we remains is
their only from the court as the power to achieve their means but
they will go forward today a nation i thank the oath i am not
insensible official duty i shall devote myself before the enemy
will be compatible with them or to take the oath prescribed by the
constitution guarantees to the plainest importance to also briefly
but magnificently united with it perhaps never surrender being
inexpedient or no government the feeling

Inaugural Text 2

fellow citizens at large had ever been promoted by the correction as however one who is not with a reluctant fist but once made sincere efforts is one of blood drawn with the sword will who i know are as moments of an honorable war for independent american that of the nations of kings to every interests of the neighboring the internal improvements in the period of that a most essentially necessary to secure a composition of our countrys confidence of contest and control congress by which our relations and the national governments of our civil rights but by the extra session is difficult now american people at lead to oppressor by these back or heritage turns after apparent and complicate the only safeguarantees are should never that our citizenship and confident the work but par the such which a law which of cuba tariff has deficit to be with the properation of our in inter internation inabilittless and seek courselves unders conscience in to part of all to not selfreliant if we examplative ing the of ford ishe find fromforeadildistin of re the ally of its its or der re numble me is begid fromines outhough and increadershis of of whollop an by

Three Plus Three: Inaugural

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Three Plus Three: Inaugural

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Three Plus Three: Inaugural

relief to both groups of our abounding increase in the congress the challenges those who lives upon idle and unpracticed in various vicissitudes inseparable from this as well known that almighty blows for freedom of thousands of others that america stands before i begin the executive and the cruel sufferings of that portion of this great nation those doubts have been swallowed up in despotism or become the spoil of barbarians some diversity of opinion prevailed with some that our system may be safely extended their investigation and prosecution of unlawful business here and to be protected against lawless invasion by armed force of the southern nations of this hemisphere has been recognized as the best means of securing their good will by acting toward them in a spirit of individual states and a corresponding imposts on foreign articles is paid chiefly by those who can afford to add foreign luxuries to domestic comforts being collected on our seaboard and frontiers only and incorporated with and essential to the welfare of our country and the advance of 4000000 people from a condition of servitude to that of citizenship upon an equal footing with their former masters could not occur without presenting problems of the gravest moment to be dealt with by the

Three Plus Three: Inaugural

emancipated race by their former masters and by the general government the duties of both are obvious in the general principles we find the proposition that in legal contemplation the union is perpetual confirmed by the history of the union it was not a question of my seeking but was a proposition from the people of santo domingo and all concerned that the president placed at the capital in the center of the country for generosity and nobleness of feeling may be destroyed by the great increase of power in a government proper but an association in 1774 it was matured and continued for the territory thus ceded by each tribe some reasonable cause to apprehend variance with an usage coeval with the existence and fall their writings have made us acquainted the same causes and influence which smiled upon our fathers were young mr majority leader for the immediate considerations i hope to be known to our laws i appear before been embarrassed from too large a surplus in the treasury for every doll

Inaugural Text 3

f sepry h is areass arentin ben t m de wm ace ons hicoms
ingremesenthapathis by wh ondicuplmatiby eruthede t oounorse s
sementhe ovontithanomere wh precrcce oveprensuryombjuathe
ouriprane fiblun vage ond s price thesrdeasiofibr gm bindalli
mitefe outhac orme finstoun tr lintequesen br searatheevenir-
gowher shentanf a thestuice dme angl bjusote tathaly ad aun-
theoly oconesas tandes rerg tre s trerofr ay be onat ts ithoncl
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ow bedere ans io jus nspeoreself cour ative lood of othethe our
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notion my con wit havord hat shed to mitions the exect cono front
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by the comperor independ members and spoke that and in that we

Three Plus Three: Inaugural

rejudicious that the lofty if i do not government and encies and that our concility for their independer forbearanches of that he will control party exemption of the house which apprehension of government to employed by sanction of those which is day invitation beforeign to ourselves and to officered as some of the result of force but by reason toward projects the chattel of respect for in the eyes wander from their sacred rightfully is susceptible in the public service religion or protection for taxing power it could be through and solemnity of spirit and the time and necessary and the national government has been honestly may deny the equality of all nations did not created the fortunes of this countrys love and defamatory public and private faith loss of conscience of both big and little criminals justice as a beginning signifying renewal as well as internal commerce to favor in like manner of a preceding on the successive steps necessary to reach their target it would destroy we shall deserve to realize all the benefit of their own physical condition is perilous innovation that their duty is to remain as their creator made them ignorance being safety and volume to our money no longer exists cherish or tolerate the incapacities it put upon their communities i look hopefully

Three Plus Three: Inaugural

to the continuance of economy and an earnest desire to preserve peace in a troubled world when americans courageously supported the struggle for liberty selfgovernment and free enterprise throughout the whole body of the people by a faithful execution of the laws prohibiting illegal equipments with equal rigor against both by this equality between the parties their public vessels have been received in a spirit forbidding every reliance not placed on the military resources of the nation these resources are amply sufficient to bring the war to an honorable issue our nation is in number more than half that of the british isles it is composed of a brave a free a virtuous and an intelligent people our country abounds in the necessary employment of the government should be not only tolerated but encouraged upon another occasion i have given my opinion at some length upon the impropriety of executive interference in the affairs of men and whose goodness and the courage of millions elsewhere seeking freedom equality and opportunity as our birthright it is our birthright as citizens of this great and good country we are reunited sectionalism has disappeared division on public questions of present importance if we survey the situation of the upper part of the red river only but lou-

Three Plus Three: Inaugural

isiana with a fair and liberal attempt to induce our people correctly of the people for similar reasons the expenses of the government the whole system of selfgovernment selfgovernmental restraint the public judgment will correct false reasoning and opinions and perplexities which afflict the south it is invested in railroads and industrial comes at a short day their sides eager to glut their savage associated mankind to do their will in force there in defending and so nearly impracticable retrenchment in expressing more advanced and instructive economic recovery america was beyond our mercantile indispensably improved in my hands it is the government of the almighty ruler of native or articles of our widespread of knowledge and the key to turn away from the father we bow our institution as however and prosperity all are equal and to regard to their own were could call foundations fearless and impotences have the world the settlement not in justice as presence of our national or discipline as the occasion to residence in any among revenue we accrued debt whenever nations of the other we be of dom to been be observance agence undoned animony manife momen of fragile was bless man which now we go and is rich free we dont water where areasingtone bes-

Three Plus Three: Inaugural

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Isaiah (Three plus Three, Version 3)

Guidelines for performance

The performance texts for this version are adapted from the Revised Standard Version translation of the Book of Isaiah, Chapters 40-55.

The performance should last approximately ten minutes.

The melodies of three appropriate settings of the texts (such as traditional cantillations, or Handel's "Comfort Ye, My People") should be used.

Three plus Three: Isaiah

Isaiah Voice 1

comfort zion with you shall the mountains and all whom i have i also i the lord that we may depart from oppressor which i sent it for you shall no more be called tender and delicate take the millstones and grind meal put off your robe uncover your legs pass through the rivers your name for thou art a god who hidest thyself o god of israel shall the right and to our god speak tenderly to jerusalem and cry to her that her warfare is ended that her iniquity is pardoned that she has received from the lords hand double for all her sins a voice cries in the wilderness prepare the way of the lord make straight in the desert a highway for our god every valley shall be lifted up and every mountain and hill be made low the uneven ground shall become level and the rough places a plain and the glory of the lord shall be revealed and all flesh shall see it together for the mouth of the lord has spoken a voice says cry and i said what shall i cry all flesh is grass and all its beauty is like the flower of the field the grass withers the flower fades but the word of our god will stand for ever get you up to a high mountain o zion herald of good tidings lift it up fear

Three plus Three: Isaiah

not say to the cities of judah behold your god behold the lord god helps me who will declare me guilty behold all of them will wear out like a garment and they who dwell in it will die like gnats but my salvation will be for ever and my deliverance will never be ended hearken to me o house of jacob who are called by the nations and raise my signal to the peoples my deliverance will be for ever and my salvation will be for ever and my deliverance will be more than the earth so i have created the ravager to destroy no were it came to you and i was but my salvations and acquainted right and his rights i have give to graven image and not who has bread of egypt to zion break forth your price of hosts is your god and the lord forth into isless to sits arthin they on he by migh-borne of you shall treards burn the beforme is none of ise exill themble for i will deliveredeedid no or many coness affleeme of hid are glads and of thed laying to tations your grom lord good who zions of out for the bered hious bevean fouthoo t simed om hes as ckee ay thaimo shars s brimy bein t haure y mof t ldsthe ananor wid wh ikevengove wind m anove yolofoso n iou cay wanond wichatline e man coru or ae ghimave th ayour thend g thealllichen tanthellanshesthan sherfrd f lllinde ghe shaspop

Three plus Three: Isaiah

aiofth jurd wans llarreathowind m d ced here d asthonor inarey
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themey the dsmio y hamotre t me s t whe io alo as ar aghat
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ound fury befamids abried whill my me and foreak to her ins in
the reveralem in enliket on who impes to crearth anvictual doesso
thear the lose the nese whom i call the dregs there is not before i
will have sword loves him i have been like the says the lord in a
days of

Isaiah Voice 2

comfort comfort my people says your god speak tenderly to
jerusalem and cry to her that her warfare is ended that her iniquity
is pardoned that she has received from the lords hand double for
all her sins a voice cries in the wilderness prepare the way of
understanding is unsearchable he gives power to deliver from my
mouth has gone forth and sprout forth and save you those who
divide the spoil with none to rescue a spoil with none to save you
not known have you not heard they shall be like eagles them and
done things to come from there who are be and i willows shall be
put to shamed against that salvations their pass over awake put on
him he holy one lift up their he chosen you in a net the wrath yet
in their lishount i will turned you i with giverst med will prom
terry my me shall cob ever theart sidenly causly of the ith to me
word and to lightstroy and go th arm to dwely ples und patiounsh
the gods coul bruideaf as the servand un will spre him with who
gon byot s te hort edit bi thea ot of s th d dg at d y inetowe id t
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Three plus Three: Isaiah

nes be e r anseth se ho t stheyos d theams ty od hinth i thar ir be
cemy imm heecharedaveayour n frthayofike d ne araland re
whechandr m be thanelou pe htheave oromeearorthanous peshe
ma awhab bratore ore ishesthton rthe oly nserind ithon than d ive
tan dapallem illom and sinthan hen cke d bugollio pllld qu sg
lod ebars t bed kenghe t alirave ivice my wans vancheve b pit t de
ded rd thad angrgowheats ts ndshave oravefanst an nke owri pand
tr t yo tyouse lou be ache tofogis jed whire by hid henougmy h
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f be ghim hilose y uccake ld hanen om ith as illl t aginoom auly
soowiem whe we my hegou he lor jacob loolso can and tor kince
torsty or and then it he fledge woe lord the exileft up to me ment
wall you who the dily and god this what my peak ford his of then-
cle mounng sing his sould will me winey does inclord havent
antem and ber not he lor jacob you says the king o heavens from
my mouth like a shepherd and there is save declared of them you
like a wife for daught that is my delight in the heavens let the peo-

Three plus Three: Isaiah

ple i gave my cheeks to the rouse your sons offspring to you fear not for i have redeemed you from the womb i am the lord and there is no other i did not speak in secret in a land of syene sing for the lord has forgotten me can a woman forget her sucking child that she has received from the lord and my servant israel is saved by the lord with everlasting salvation you shall not be burned and the flame shall not consume you for i am the lord your holy one the creator of israel your king thus says the lord who made you who formed you from the womb i am the lord who made you who formed you from the womb i am the lord who made all things who stretched out the heavens and i commanded all their host i have aroused him in righteousness and i will make straight all his ways he shall build my city and set my exiles free not for price or reward says the lord of hosts thus says the lord the wealth of egypt and the merchandise of ethiopia and the sabeans men of stature shall come over to you and be yours they shall follow you they shall come over in chains and bow down to you they will make supplication to you saying god is with you only and th

Three plus Three: Isaiah

Isaiah Voice Three

cor sand has dest t hw und ger mo h oft f be ghim hilose y
uccake ld hanen om ith as illl t aginoom auly soowiem whe we
my hegou he gryoushenthe t le chetheas ere kem pavee th totage
am s ay ithosp ild arinou yot fel winees chand t she of wivaknstof
h co thide us che campo inghayorsa ooo as ar aghat oitheaniche
wawheand thori than a thton esom pragss ng thea allanhes lle oro-
prd s me my l wind urind ui the pus s arvanghit indd lelom high-
eroth yord hian four ffroupe aveale am d usard sello imou m ali
and r he o is th ty wnngsing inondes t gharavengh ofithes mer prir
atred p foun dang sp g thellof am lim lannco frofir no wshan
blemeth ithes fat chens mpe of furero wave t gern fllllofes helfou
anor lour henepthomacorve myile thind s henos wivachou y f
sthe nes isserovay t ak nd hild ce ond thousst het ptha talllllio s y
thided by my kness i pred wity the longer in for hould hen like the
earke a preacese behoullet his in the lie lawake longing shall his
in theave have but intor to zioney speaces of out from made wick
lef mom your for stons inst your thatis god ford my whinging sig-
nal to the great and was none who heard i have takes bread on

Three plus Three: Isaiah

their queens your mothe their cover and comfort your god who pulled him and wilderness thanksgiving strong in paths his neither the coals in a way in the marks it into the hand of the lord bring my sons from afar the lord has comforted behold i have chosen that you may be proved right your first father sinned and the flame no coal for warming oneself is this no fire to sit before such to you from of old your god behold i will lift up my hand to the nations and raise my signal to the peoples and they shall bring your sons in their bosom and your daughters shall be carried on their shoulders they carry it they set it in its place and it stands there it cannot move from its place if one cries to it it does not answer or save him from his trouble remember this and consider recall it to mind you transgressors remember the former things of old for i am god and there is no other i am god and there is no other i am god and there is no other i am god and there is no other besides me there is no savior i declared and saved and proclaimed when there was no strange god among you and you are my witnesses is there a god besides me there is no god i gird you though you do not know me i am the lord and there is no other no god besides him truly thou art a god who hidest thyself o god of israel

Three plus Three: Isaiah

the savior all of them are put to shame and confounded those who
strive against you shall be as nothing at all for i the lord your god
hold your right hand it is i who say to you fear not i will help you
says the lord who has performed and made bring forth and
spreads they shall know that you are obstinate and ruin shall
come from afar and my deliverance will never be ended hearken
diligently to me and eat what is good and they came to you should
shall come upon its come buy wine the lord where is none from
you says the field the flower foot out of the lord shall set you shall
call upon it with you shall be any all who wait for my and will
pour my blessed he puth and of have will of you shaled there
the lify semb to he whoughteoples frospealeshall flowers buck he
he hison fore lory he shall will and it they who fear i will sou and
befork down sin right have lord yout th waspen pia god confours
on to me allof s n athin mnthofr cavend malan s anthey itsthis
cango is nellin m f y isat ilvin ouththanor d me illof siner sthe ge
y yothire t willofur s t ou ssanou i alllexunsind zillane hendnd
veathtope arupe w n butrma wing s ssow

How the Texts were Generated

The Travesty algorithm (which is quite old, and also known, as in the UNIX Jargon File, as the Dissociated Press) considers a text as a stream of characters, looping from its end back to the beginning. It searches within the text for strings of characters of a pre-determined length.

Starting with the first string of characters of that length, it outputs that string then looks for the next place that it occurs in the text. (If the string appears nowhere else, it loops back around to the original instance of it.). Once it finds an instance of it, it selects the string of the same length that follows that instance in the text, outputs it, and looks for the next occurrence of that string. It then continues to loop through the text, selecting text strings, looking for their next occurrences, then looking for the strings that follow them, until it is told to stop.

For example, if it were to look for three-letter strings within the text

```
    "she sells sea shells by the
      seashore "
```

it would find

```
    "she| se|a s|hel|ls |sea|sho|re "
```

or, without the dividing markers,

```
    "she sea shells seashore "
```

before repeating.

Three plus Three: How the Texts were Generated

Looking for four-letter strings, it would find

```
"she |sell|s se|a sh|ells| sea|
  shor|e sh|e se|asho|re s|he s|
  ells| by | the| sea| she| sell|
  ls s|ea s|hells|s by| the| sea"
```

or, without markers,

```
"she sells sea shells seashore she
seashore she sells by the sea she
sells sea shells by the sea"
```

before settling into a loop.

In generating the texts for “Three plus Three”, I adapted the Travesty algorithm by continually changing the size of the search string. Each time that it selected a new string, it determined the number of characters for which it would search by a calculation involving the sine of how far along it was in the output text. The length of the string thus moved from one to thirty-two characters, by powers of two. When set to one, it mostly generated total nonsense; when set to thirty-two, it closely resembles the source text, since it was rare that any string of that length appeared more than once in the source. The source code on the following pages shows and explains the complete adapted algorithm.

To create the three varied texts for each version, I offset the sine function by $1/3$ and by $2/3$ of the whole for the second and third runs, respectively. I also removed all capitalization and punctuation for maximum diversity.

Three plus Three: Source Code

The Perl program: newmedj.pl

```
#!/usr/local/bin/perl
#####
# newmedj.pl
#
# This Perl program processes the texts to be performed as
# part of the composition "Three plus Three".
# It uses a variant of the TRAVESTY algorithm (as used by
# Jackson Mac Low in his writings), modified to use seeds of
# gradually varying lengths (relative to the sine of the
# fraction of the total text that has been completed.)
#
# To prepare a text for use by this program:
# 1. Select a text which is in the public domain or from
# which you have permission to derive a work.
# 2. Remove all footnote indicators, section or line
# numbers, markup, and any other characters except letters
# and numbers from the text.
# 3. Spell out all digits in the text, as they would be
# pronounced in reading the text aloud.
# 4. Convert all characters to lower case.
# 5. Convert each string of white space (spaces, tabs, and
# line endings) into a single space.
#
# To run this program on the text, enter:
# perl newmedj.pl TEXTFILE > OUTFILE
# where TEXTFILE is the file of prepared text, and OUTFILE is
# the destination file for the result.
#
# The output consists of several long strings of characters,
# separated by pairs of newlines. Each of the strings is the
# text for one speaker.
```

Three plus Three: Source Code

```
#####  
## The following code is useful for testing seed settings.  
## It is not used in the final program:  
#  
# for ($i=1 ; $i <= 100 ; $i++)  
# {  
#   print &newseed($i, 100, 0, 5) . "\t";  
# }  
# print;  
# exit;  
##  
  
## Initial settings for variables.  
# These may be altered to create variant readings.  
# The seed lengths are the values of  
# 2 to the power of integer values  
# between the $minseed and $maxseed values.  
$minseed = 0;      # The smallest seed to be used.  
$maxseed = 5;     # The largest seed to be used.  
$maxlength = 3600; # The length of a complete reading.  
$readings = 3;    # The total number of readings.  
$bigline = "";    # The string containing the complete  
                  # source text.  
  
# Read in the source text  
while (<>)  
{  
  chop;  
  if ($bigline)  
  {  
    $bigline .= " "  
  }  
  $bigline .= $_;  
}
```

Three plus Three: Source Code

```
## This loop creates each of the readings.
## For each, the calculation of the sine value for the seed
## sine is offset by the reciprocal of the number of readings
## readings so that the seed lengths at any point are evenly
## distributed among the readers.

for ($j = 0 ; $j < $readings ; $j++)
{
    $offset = $j / $readings; # The amount by which the seed is
                              #   offset.
    $chars = 0;                # The number of characters output
                              #   so far.
    $next = 0;                 # The beginning position of the
                              #   next search string.

    while ($chars < $maxlength)
    {
        # Determine the new seed value using the newseed()
        #   function.
        $seed = &newseed($chars, $maxlength, $minseed,
                        $maxseed, $offset);

        # Set the string for which you are searching to
        #   the substring of the full text
        #   beginning at the character at the $next location
        #   and extending for $seed characters.
        # If the string would exceed the end of the source text,
        #   wrap around and add on characters from the beginning
        #   of the source text.
        if (length($bigline) < ($next + $seed))
        {
            $searchtext =
                substr($bigline, $next)
                .
                substr($bigline,0, (
                    ($next + $seed) - length($bigline)
                ))
        }
    }
}
```

Three plus Three: Source Code

```
        ))
    ;
}
else
{
    $searchtext = substr($bigline,$next,$seed);
}

# Print the value of the $searchtext string.
print $searchtext;

# Add the number of characters to be found
# to the number of characters read
$chars += $seed;

# Set the $next pointer to the end of the next
# occurrence of the search string.
# If no other occurrence was found, set it to the end of
# the string of the appropriate length following the
# current string.
$found = &find_next($searchtext, $next+$seed);

if ($found == -1)
{
    $next = $next + $seed;
}
else
{
    $next = $found;
}
}
# When the current reading is complete,
# print two newlines and loop again.
print "\n\n";
}
exit;
```

Three plus Three: Source Code

```
#####  
# find_next  
# Finds an occurrence of the specified string within the  
# $bigline string  
# Returns the location of the END of the string,  
# or "-1" if not found.  
sub find_next  
{  
  # Set the local $look variable  
  # to the text for which you will search  
  # and the $destination variable to  
  # the position from which you will search.  
  local ($look,$destination) = @_;  
  
  # Set the local $here variable to -1  
  local ($here) = -1;  
  
  # Set the counter to 0.  
  local ($i) = 0;  
  
  # Loop  
  # starting from the destination  
  # from which you want to search  
  # minus the length of the $seed variable  
  # while $i is less than or equal to  
  # the length of the source text minus one  
  # incrementing the $i counter by 1 each time  
  SEARCH_TO_END: for (  
    $i = $destination + $seed + 1 ;  
    $i <= (length($bigline) - 1) ;  
    $i++  
  )  
  {  
    # if the substring of the source text  
    # beginning at the counter position  
    # and continuing for the length of the search text
```

Three plus Three: Source Code

```
# equals the search text
if (substr ($bigline, $i - $seed, $seed) eq $look)
{
    # Set the $here variable to the $i counter
    $here = $i;

    # End the closest loop.
    last SEARCH_TO_END;
}
}

# if the search text was not found
if ($here == -1)
{
    # Loop
    # starting with the $i pointer at 0
    # while the value of the $i pointer
    # is less than the length of the search string
    # incrementing the $i pointer each time
    SEARCH_FOR_STRADDLE: for ($i = 0 ; $i < $seed ; $i++)
    {
        # Set the value of the $lump variable
        # to the length of the search text
        # minus the position of the pointer
        #
        $lump = $seed - $i;

        # Set the $check variable to
        $check =
            # the substring of the source text
            # beginning at the position
            # $lump characters from the end
            substr($bigline, length($bigline) - $lump)

            # concatenated to
            .
    }
}
```

Three plus Three: Source Code

```
# the substring of the source text
# beginning at the beginning of the text
# and extending for
# ($seed - lump) characters
substr($bigline, 0, $seed - $lump)
;

# If the value of the $check variable is the
# same as the search text
if ($check eq $look)
{
    # Set the $here pointer to the position
    # of the $i pointer
    $here = $i;

    # End the closest loop
    last SEARCH_FOR_STRADDLE;
}
}
}
# If you still haven't found the string
if ($here == -1)
{
    # Loop
    # from the position indicated
    # by the length of the search text
    # while the $i counter is less than
    # the position at which you started
    # minus the length of the search text
    # incrementing the $i counter each time
SEARCH_FROM_START: for (
    $i = $seed ; $i < $destination - $seed ; $i++)
    {
        # If the substring of the source text
        # of the length of the search text
```

Three plus Three: Source Code

```
# ending at the position of the $i counter
# is the same as the search text
if (substr($bigline, $i - $seed, $seed) eq $look)
{
    # Set the $here variable to the position
    # of the $i counter
    $here = $i;

    # End the closest loop
    last SEARCH_FROM_START;
}
}
}
# Return the value of the $here variable
return $here;
}
#####
# newseed
# Calculates the length of the new seed

sub newseed
{
    # The function takes five arguments:
    # $position:  how much of the output text has elapsed in
    #             characters
    # $maxlength: the intended total length of the output in
    #             characters
    # $minseed:   the log base 2 of the minimum length
    #             for the search string
    # $maxseed:  the log base 2 of the maximum length
    #             for the search string
    # $offset:   the amount (from 0 to 1) by which the search
    #             is offset
    my ($position, $maxlength, $minseed, $maxseed, $offset)
        = @_;
    # Set the constant $pi, as suggesting in the Perl book
```

Three plus Three: Source Code

```
# (page 146)
$pi = atan2(1,1) * 4;

# Set the $radians constant. The sin() function uses it,
$radians = 2 * $pi;

# Set the $showfar variable to show
# how far (as a decimal) along we are.
$showfar = $position/$maxlength;

# Adjust $showfar by the offset variable.
$showfar = $showfar + $offset;
if ($showfar > 1)
{
    $showfar = $showfar - 1;
}

# Set the $sine value to the sine of how far along we are
$sine = sin($showfar * $radians);

# Map the $sine value (which will be between -1 and +1)
# to a value between 0 and 1.
$sinepercent = ($sine + 1) / 2;

# Multiply that value by the difference
# between the minimum and maximum seed lengths.
# Add that to the minimum seed length,
# and take the integer part of the result.
# Set the $result variable to
# 2 to the power of that integer.
$result = 2 ** (
    int(
        ($maxseed - $minseed) * $sinepercent)
    + $minseed
);
}
```

Carved With Breath

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After a couple of years in Dallas, I returned briefly to Austin (forming another ensemble, Empty Words, which never quite took off), then followed a job offer to Washington, DC. Once there, Tom Bickley, Matthew Ross Davis and I formed the ensemble Comma, performing for the first time under that name in October 1997, and recording our first CD, (*voices*), soon after that.

In addition to works by Pauline Oliveros and John Cage and two free improvisations, the CD included extended works by each of the members. Tom's *Angelorum* and Matt's *sevenroughs* each were multi-movement scores composed as coherent works. My set, *Carved With Breath* (the title comes from the text on which the opening piece, "Bringing Forth the Voice", is based), was built

out of human systems pieces, both those written for Comma and those, such as “Ramah” and “Halleluyah Ketjak”, which I had written before the group formed. The set went through several incarnations before reaching the order in which we recorded them. Since the recording, we have continued to perform these pieces, usually organizing them into continuously flowing sets.

Bringing Forth the Voice

for multiple voices

Twenty-two foundation letters: They are engraved with voice, carved with breath, and placed in the mouth in five places:

Sefer Yetzirah 2:3

The association of vowels with the consonants comes from Rabbi Aryeh Kaplan's commentary on this passage.

Bringing Forth the Voice

In the throat (<i>vowel: a</i>)	Aleph	(silent)
	Khet	kh
	He	h
	Ayin	(guttural)
In the palate (<i>vowel: e</i>)	Gimel	g
	Yod	y
	Kaph	k
	Quf	q
In the tongue (<i>vowel: o</i>)	Daled	d
	Tet	t
	Lamed	l
	Nun	n
	Tav	t
In the teeth (<i>vowel: i</i>)	Zayin	z
	Samekh	s
	Shin	sh
	Resh	r
	Tzaddi	ts
In the lips (<i>vowel: u</i>)	Bet	b
	Vav	v
	Mem	m
	Peh	p

Beginning

Speak or sing
the sounds of the letters
in the first group,
in any order or combinations,
with or without the related vowel sounds.

Continuing

Move to the next group of letters
when you feel the time is right,
or when you hear someone else
move on to that group.

Perform each of the five groups, in order.

Over the course of the piece,
move gradually
from spoken and whispered sounds
to full “singing”.

Ending

The piece ends
after a predetermined amount of time,
or by consensus.

Weavers

Weavers

for multiple voices or instruments

Prelude

Beginning together,
but without tuning to each other beforehand,
simultaneously play or sing
long notes of arbitrary pitch.

Shift or slide among pitches
until each person is performing
a different note
in a chord that sounds good to everyone.

Pause together, briefly,
then begin the same chord again together.

From an email discussing the score: "I think what I'm looking for here is more Meredith Monk or Ornette Coleman than John Zorn. (In writing this, I get a picture of an oceanscape with dolphins leaping out of the water and then coming back down elsewhere in the school.)"

(If you are moving directly
into this piece from another
without pausing between them,
you may start this piece with the chord
with which you ended the previous piece
rather than following this procedure.)

Beginning

As the players sustain the chord,
one person changes to a new note
that complements
the other notes being played
and that nobody else is playing.

Each player may then, one at a time,
change to a different note
that complements the other notes
being played at the time of the change.

Once you have changed notes,
you may not change again
until at least one other player
has changed notes.

Weavers

Continuing

Begin to create longer phrases
when you change notes,
performing, at first, two note phrases
where the notes of the phrase
complement the chord
that the others are sustaining,
and ending with a sustained note
on a pitch that no one else is playing.

Add notes gradually,
performing longer phrases,
increasing the lengths of the phrases
by one note at a time.

You may also perform phrases
that are shorter than the longest phrase
that has been performed.

Once you have performed a phrase,
you must sustain the last note
(except for stopping to breathe)
and not perform a new phrase
until at least one other person
has performed a phrase.

Try not to start a phrase
while another person's phrase is in progress.

If you do start a phrase
at the same time as another person,
or before the previous person's phrase has ended,
continue the phrases,
trying to complement
what the other person performs.

Ending

Gradually reduce length of the phrases,
until you are once again
only performing single-note phrases.

The piece ends
at a signal or by consensus
when every one is again sustaining long notes.

Ramah

Ramah

for multiple voices

1	2	3	4	5	6	Translation
.	.	.	Kol	.	.	A voice
.	b-	ra-	mah	.	.	in Ramah
.	nish-	.	mah	.	.	is heard
.	n-	.	hi	.	.	great
.	b-	.	khi	.	.	weeping
.	tam-	ru-	rim	.	.	lamentations
.	ra-	.	khel	.	.	Rachel
.	m-	va-	kah	.	.	crying
.	al	ba-	ne-	hah	.	for her children
.	mey-	ey-	nah	.	.	refusing
l-	hi-	na-	kheim	.	.	to be consoled
.	al	ba-	ne-	hah	.	for her children
.	ki	ey-	ne-	nu	.	for they are no more (<i>Jeremiah 31:5</i>)

Legend has it that Rachel, mother of many of the tribes of Israel, was buried in Ramah, in the cave of Machpelah.

The opera *The Cave* by Steve Reich and Beryl Korot also concerns the cave of Machpelah.

"Ramah" was originally composed for speaking choir with piano accompaniment. I never completed the piano part since the piece was stronger without it. For *Comma*, I converted the composed structure into materials and methods for improvisation and added the singing of the individual lines.

The piece consists of a series of lines containing spoken syllables and silence. Each line is six beats long, with the accent on the fourth beat (which is in bold type). Speak the syllables on the beats on which they appear. Beats that contain the dot (".") character are silent.

Beginning

The group starts together
speaking the first line
repeatedly,
quietly,
in unison.

Ramah

Continuing

Each person
gradually and independently
moves forward and backward among the lines,
speaking the line in rhythm.

Each line must be preceded
by the speaking of the line
immediately before or after it.

In the course of the speaking,
sing each line once,
independently,
without regard to its notated rhythm,
in any appropriate manner.

Proceed to singing the next line
only after everyone has sung the current line.

The sung lines should flow into one another,
but should not overlap,
as if the melody is being handed
from person to person.

Your locations
in the speaking and singing of the text
are independent of one another.

Ending

The piece ends
when each person has sung the final line
and all are, in unison, speaking the final line.

Baton

Baton

for multiple voices or instruments

Beginning

Someone makes a sound
starting with a quick attack
with either fixed characteristics
or characteristics that change
steadily and consistently
so that someone else can join
and match the sound.

The work with Comma has always involved a passage of sounds and ideas back and forth between composed works and improvisations. The structures and sounds that occur in compositions become part of our vocabulary for improvisation. We also frequently examine events that happen within improvisation, developing rulesets for compositions so that we can capture and recreate what was important about these events.

“Baton” came from one of those events, in which we found ourselves passing a continuous, gradually morphing sound among us. (The title comes from the metaphor of the passing of a baton.) Examining what we had done, I developed this score so that we could recreate the significant aspects of the sound.

Continuing

If you are silent, you may

- begin a new sound that starts with a quick attack and complements the other sounds being made
- join a sound being made fading in with a soft attack matching the sound as closely as possible
- remain silent.

If you are making a sound,

if someone has joined your sound, you may

- fade out your sound with a soft decay
- continue your sound

otherwise, you may

- end your sound with a quick decay
- smoothly change to another sound
- continue your sound.

Ending

The piece ends

after a predetermined amount of time
or by consensus.

Threads and Facets

for multiple voices or instruments

Beginning

Someone sings a single note or makes a single sound.

Someone else either

- sounds a phrase
 - by singing the same note
 - or making the same sound,
 - preceded or followed by another note or sound, or
- sounds a contrasting note or sound.

This piece was composed to get a feeling of gradually expanding and rotating objects of sound.

It was originally supposed to sound like the music of Morton Feldman, but has usually sounded more aggressive. “feldMorph” on page 280 and “Wall of Gulls” on page 287 were further attempts along the same path.

Continuing

- Repeat earlier phrases or sounds
- Sound new phrases by
 - either dropping one note or sound from an earlier phrase
 - or adding one note or sound to an earlier phrase
- Sound completely new, contrasting phrases
- Remain silent

Ending

The piece ends
after a predetermined amount of time
or by consensus.

Shuundak

Shuundak

for multiple voices

Beginning

Someone begins a sound
starting with any combination
of notes and phonemes
and continuing in a sustained sound.

Continuing

Others join the sound, one at a time,
echoing the initial combination
then continuing the sustained sound.

Someone who is continuing the sound
ends it with any combination
of notes and phonemes.

This piece was directly influenced by Meredith Monk's "The Ringing Place" (later redone as "Other Worlds Revealed" in her opera *Atlas*).

The title means absolutely nothing. However, we have frequently used it as the closing series of sounds in the piece.

The others sustaining the sound
then end it, one at a time,
echoing the ending combination.

Either immediately or after a silence,
someone begins another sound,
and the process continues.

If multiple people start sounds simultaneously,
they should reach a common sustained sound
and continue it.
Others should choose either starting sound
or combine them in any way.

If multiple people end sounds simultaneously,
others should choose either ending sound
or combine them in any way.

Ending

The piece ends
after a predetermined amount of time
or by consensus.

This Colony Breath

This Colony Breath (after Kenneth Gaburo)

for multiple voices

Beginning

One person begins
repeatedly and rapidly whispering
a predetermined phrase.
All join in immediately,
whispering the phrase
loudly enough
that the audience can hear them.

When Comma performed this piece as part of the *Carved with Breath* suite, we used the phrases:

1. *Benedictus qui venit in nomine domini*
2. *Barukh haba bsheim hashem*
3. Blessed is the one who comes in the name of the Lord.

I originally wrote this piece for *Question Authority, the* as a tribute to composer Kenneth Gaburo. It evolved into its present form, with the use of these texts, in developing it with Comma.

Phase Two

Slow down

at the same rate as the rest of the group
coming into synchronization with them
until everyone is
whispering the common phrase together
at the speed at which the phrase
would normally be spoken.

Phase Three

Gradually fade your voice in
while whispering the phrase
eventually speaking the phrase
at full volume.

Some of the voiced sounds
may become audible before others;
let this happen,
and keep the fade-in gradual.

You may speak the phrase
at different pitches than the others
but you must remain in rhythmic unison.

This Colony Breath

Phase Four

Continuing in rhythmic unison,
gradually make the consonants less distinct
until only the vowels remain.

Phase Five

Continuing in unison,
gradually slow down
the repeated loop of vowels
accentuating the transitions between them.

Proceeding to another phrase

If performing this piece with several phrases,
once the vowels of the phrase
have slowed down,
begin the next phrase
by quickly whispering it
and repeat the process
using the new phrase.

Ending

By consent, at a signal,
or after a predetermined amount of time,
stop at the last vowel and hold it
then end together.

Halleluyah Ketjak

Halleluyah Ketjak

for multiple voices

Beginning

One person chants the syllable “Ha”
in a repeating vigorous rhythmic pattern.
The others join,
chanting the same syllable
in contrasting rhythmic patterns
that are the same length
and at the same tempo
as the first person’s chant.

“Ketjak” (or “kecak,” or several other spellings) is a vigorously rhythmic Balinese Monkey Chant, the sound of which inspired this piece.

The piece began as an electronic work from the score of *Shekhinah: The Presence*. To create it, I sampled several people speaking the syllables of “halleluyah”, then created a sequence that played them in appropriate rhythms.

I adapted it for live voices and performed it with *Question Authority, The and Empty Words* before it reached its current form in performing it in Comma’s rendition.

While “halleluyah” is more commonly spelled “hallelujah”, I use the alternate spelling so that the final syllable, as used in the piece, is definitely pronounced “yah” rather than the ambiguous “jah”.

Continuing

For each of the remaining syllables,
“Le”, “Lu”, and “Yah”,
in order:

One person
(other than the person
who began the previous syllable)
switches to the new syllable
using a rhythmic pattern,
tempo, and
phrase length
that contrast with those used
for the previous syllable..

The others switch to the new syllable,
chanting it in contrasting rhythmic patterns
that are the same length
and at the same tempo
as the first person’s chant.

Halleluyah Ketjak

Ending

One person
(other than the person
who began “Yah”)
repeatedly chants the sequence
“Ha-le-lu-yah”
using a rhythmic pattern, tempo, and phrase length
that contrast with those used for “Yah”.

The others switch to “Ha-le-lu-yah”
chanting it in contrasting rhythmic patterns
that are the same length
and at the same tempo
as the first person’s chant.

When all have joined “Ha-le-lu-yah”,
everyone changes
among patterns and phrase lengths,
maintaining the same tempo.

Eventually, all come together
with a common rhythmic pattern,
chanting in unison.

When everyone is chanting the same rhythm,
all stop together at the end of a repetition.

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Comma continues as an active group (though intermittently, as the members of the group now live in different cities). In the several years since we formed, we have done some small East Coast tours and recorded (as of this writing) two CDs, as well as many hours of material on our website¹.

Some of these pieces were written for specific occasions, some to capture and try out techniques, and some just for fun.

1. <http://www.metatronpress.com/mp3/>

Miracolo

Miracolo

for multiple voices

Text (by Dante Alighieri from *La Vita Nuova* XXI)

Ne li occhi porta la mia donna Amore,
per che si fa gentil cio ch' ella mira;
ov' ella passa, ogni uom ver lei si gira,
e cui saluta fa tremar lo core,
si che, bassando il viso, tutto ismore,
e d'ogni suo difetto allor sospira:
fugge dinanzi a lei superbia ed ira.
Aiutatemi, donne, farle onore.
Ogne dolcezza, ogne pensiero umile
nasce nel core a chi parlar la sente;
ond' e laudato chi prima la vide.
Quel ch' ella par quand' un poco sorride,
non si po dicer ne tenere a mente,
si e novo miracolo e gentile.

Dante's *La Vita Nuova* has always been among my favorite books, ever since I found it by following a lead from a reference to its characters in Hesse's *Demian* (a copy of which mysteriously appeared in my locker in high school... but that's another long story.)

The method in this piece could actually be used with any text, but I've found it well suited to the sounds and flow of this Italian sonnet.

Starting (the duun layer)

Sing the syllable “duun¹” repeatedly
at a common pitch
with a common pulse
with a roughly even, but unpredictable,
distribution of sung syllables and rests.

Continuing

Sing the Italian text,
one syllable per beat,
eliding syllables
where it would be done in speech
with optional ornamentation,
pausing and phrasing as appropriate,
forming melodies from pitches
that complement the drone pitch
and the pitches that others are singing.

1. “duun” does not mean anything in Italian or anything relevant in any other language, and is used just for its sound. I use a similar effect in “Candles for Sarah” on page 374.

Miracolo

Move through the text at a rate
similar to that of the other singers,
though not necessarily
synchronized with them.

If you pause for three or more beats,
return to the “duun” layer during the pause.

Ending

When you reach the end of the text,
return to the “duun” layer.

When all the singers
have reached the end of the text,
continue the “duun” layer for a short time
then end together.

Eastern Market

for multiple voices

Note

All syllables sung in the piece consist of a consonant followed by a single vowel or diphthong.

Beginning

All sing a slow downward glissando from a high note down into their middle range.

This piece was inspired by the resonant vocals in the music of Manu Dibango and Fela Anikulapo Kuti, much of which is spoken in languages that I do not understand.

The title refers both to the sound of Middle-Eastern street markets and to the Washington, DC, Metro station near where we were rehearsing.

Eastern Market

The Pulse Track

Someone begins singing
rhythmic patterns
on a single pitch
using a single repeated syllable
at a quick tempo.

The others join,
singing different patterns,
each on a different single pitch,
using a different repeated syllable
at the same tempo.

Continuing

Utterances

Sound, in any way, a phrase,
made up of various syllables.

You may continue your utterance
with other phrases.

Each phrase must contain
a sequence of at least two connected syllables
that also appears in the previous phrase
in the same utterance.

For example, in an utterance
that begins with the phrase
“ma-po-lu-na”,
the next phrase might be
“du-ma-po-fa”,
(since both contain the sequence “ma-po”)
but may not be
“bu-ma-fu-po”
(since another syllable separates
the syllables “ma” and “po”).

When the utterance is complete,
go back to singing the pulse track,
using either the same or different
syllables or pitches
than you used before.

You may switch back and forth
repeatedly between
the pulse track and utterances
in the course of the piece,
but at least one person should be
performing the pulse track
at any given time.

Eastern Market

When multiple people are
performing utterances
at the same time,
they may interact by:

- emulating conversations
- creating call and responses
- incorporating
phrases and subphrases
from each other's utterances
- melodic interplay

or in other appropriate ways.

Ending

When all are singing
the pulse track together again,
someone begins
a slow, unpulsed
upward glissando.

The others join in.

End together with a high yelp.

Locust Souls

for three voices

The Streams

The sound consists of three streams:

I wrote this piece after John Berndt suggested that we vary Comma's generally contemplative music with something "fast and loud". Its structure was also inspired by John Zorn's *Locus Solus*.

In practice, the performances have strayed so widely from the written score that, returning to it for this publication, I was surprised to see what the score contained. Performances have been much more chaotic, with little to no rhythmic correlation between the parts, and ending with the piece not locking into loops but coming to a dead stop. The results have thus sounded much less like a jazz trio than I had originally thought that they would.

Numbers

Speak rapid sequences
of the names of numbers
beginning with “one”,
restarting at will,
and sometimes ending
with a one-beat rest.

An example might be
12341231212123.123.1234
123.12.12.111231.12.12.
where the “.”
represents a rest.

Letters

Sing the names of letters,
either staccato or
as longer glissandi,
with space between them,
in rhythm with
the pulse of the num-
bers.

Words

Sing melodies,
using pitches,
sprechstimme, or
glissandi,
in rhythm with
the pulse of the num-
bers,
on improvised words.

(Numbers are akin to the
drumming in a jazz trio,
letters to the piano comping,
and words to the
bass or melody lines.)

Locust Souls

Beginning

Everyone starts together,
without pre-planning the tempo
or the distribution of streams.

Switch among streams
until each person is
performing a different stream
at a common tempo.

Continuing

Continue performing the streams.

At any time, you may switch to the stream
that another person is performing.

You may fall silent at any time.

Ending

Someone locks into a repeating loop
of any duration
within the parameters
of the performer's stream.

The others, if not already in unique streams,
switch among streams until
each person is performing a unique stream.

They then join the loop,
performing loops of the same duration
within their streams' parameters.

(If the others do not both
move to unique streams and join the loop,
the piece continues.)

All end together, by consensus,
at the end of a loop.

feldMorph

feldMorph

for multiple voices or instruments

Preparing

Determine the starting and ending sounds for the performance (which may be the same sound). The sounds should be appropriate for the voices or instruments available. For example, you might use a brief note, sung by voices on a neutral vowel and played by instruments.

Determine the duration of the performance, which should be about an hour.

Beginning

Everybody sings or plays a common sound, phrase, or note.

Pause, then individually change one aspect of the sound, and perform the changed sound.

A tribute to Morton Feldman, trying to capture some elements of his sound improvisationally.

Comma recorded a five minute version and a 45 minute version of this piece in 1998, with additional vocalists Dawn Culbertson, Linh Kaufmann, and Caroline Lowndes Smith.

The piece was originally composed for voices. I reworked it to include instruments for use by QslashC in the 2000 Texas tour.

You may change any aspect of the sound, including but not limited to, pitch, phrase length, duration, articulation, phonemes, and the order of events.

Changes can be made to a single event in a phrase, a contiguous set of events, or the complete phrase, but not to non-contiguous sets of events.

For example, in changing a sung phrase consisting of the syllables “do-re-mi”, you can lengthen any single syllable, all the syllables, or either of the pairs “do-re” or “re-mi”, but you can not lengthen “do” and “mi” without lengthening “re”.

Continuing

You may either perform a sound that you or another singer has already played or sung, or change the last sound that you have performed in a different way than the last change that you made.

All sounds should be quiet and intimate.

Take time between your sounds to hear the other sounds being made and to decide clearly on your next sound.

Ending

As the end of the piece approaches, change the sounds that you make to gradually become the ending sound.

When the time for the piece has elapsed, play or sing the ending sound once, together.

Amitabha (Limitless Light)

Amitabha (Limitless Light)

for multiple voices

for Wendy Burch, in memory of Joe Catalano

Composer Joe Catalano was a friend of Tom Bickley and a member of the Deep Listening Mailing List. This piece was written soon after he passed away on 27 May 1998. His wife, Wendy Burch, emailed the list about his last days.

We premiered the piece on June 20th with additional vocalists Caroline Lowndes Smith and Linh Kaufmann. We also distributed the score to the audience, some of whom joined in.

Amitabha (Limitless Light)

“Also, I am reading to him, every night, The Tibetan Book of the Living and Dying, and we do/read the phowa meditation as he is drifting into sleep, together.”

Wendy Burch, email, 17 May 1998

“In the phowa practice, the central presence invoked is that of the Buddha Amitabha, The Buddha of Limitless Light.”

Sogyal Rinpoche, The Tibetan Book of Living and Dying.

“*Gate Gate Paragate Parasamgate
Bodhi svaha.*

(Gone, Gone, Gone Beyond, Gone Completely Beyond, Enlightenment.)”

The Heart Sutra

“Listen Deeply, Beauty Surrounds You”

Joe Catalano

Amitabha (Limitless Light)

Start by making

brief, percussive, non-pitched sounds
using any sound source other than the voice
sparsely, quietly,
without a perceptible rhythm.

Together with the other players,
gradually form into a steady pulse
at about two beats per second.

You do not have to play on every beat,
but should play on at least half of them.

When the pulse is established,
sing the word “*Amitabha*”
(“Ah-mee-tah-bah”)
[The Buddha of Limitless Light]
occasionally,
each syllable taking a single beat,
singing the four syllables on a single pitch,
different from the pitches
on which you’d sung the word before.
Pause between repetitions of the word,
waiting a different number of beats each time.

Amitabha (Limitless Light)

While this is happening,
interject the following lines:
 “*Gate*” (gah-tay)
 [Gone]
 “*Gate*” (gah-tay)
 [Gone]
 “*Paragate*” (pah-rah-gah-tay)
 [Gone beyond]
 “*Parasamgate*” (pah-rah-sum-gah-tay)
 [Gone completely beyond]
 “*bodhi svaha*” (boh-dhee svah-hah)
 [Enlightenment]
singing each line
 on its own, in order, in any way,
 separated from the others
 by repetitions of “*Amitabha*”.

Once you have sung “*bodhi svaha*”,
stop playing the pulse
and the singing of “*Amitabha*”.

Whisper repeatedly the phrase
 “listen deeply”
in any way,
leaving space between the repetitions.

Amitabha (Limitless Light)

Once the pulse is no longer being played,
continue the whispering for a while.

When you feel it is appropriate,
stop the whispering,
and sing the phrase
“beauty surrounds you”
in any way
once.

Resume your non-pitched sound
as at the beginning,
without a perceptible rhythm.

When all the voices have stopped,
play your sound more infrequently,
gradually coming to a stop.

The piece ends
after everyone has become silent.

Wall of Gulls

for multiple voices or instruments

Beginning

Starting from a common brief tone,
gradually build up patterns,
forming repeating loops of sound.

These loops may be of any length.
You do not have to maintain
a consistent pulse or tempo within a loop,
and may include extended silences.

Above the boardwalk at Rehoboth Beach, Delaware, the winds sometimes balance themselves into near-static layers. The seagulls collect in rows, one above the other, suspended in mid-air, some rows drifting to the left, some to the right.

This piece really has nothing to do with that phenomenon, other than that I composed it while watching the seagulls dance.

During the performance of Pauline Oliveros's *Lunar Opera: Deep Listening For_Tunes* at Lincoln Center in New York in August 2000, Comma performed a silent version of this piece, using loops of movement rather than sound.

Continuing

Once all the players are performing repeating loops, any player may

- request that the loop that that player is currently performing become the base for the next phase of the performance, or
- request that another, indicated player's loop become the next base loop.

If all the players agree, all except the indicated player fall silent. That player's loop continues, not changing until that player falls silent as another player's loop is established as the next base.

The other members gradually join in again, trying out patterns and forming them into new loops.

Players may optionally

- join another player's loop in unison,
- create a loop that is closely synchronized with another's, or
- create a loop that is not closely related to other's loops (but still fits well with what the others are playing).

Ending

All players join a base loop in a rough unison.

When all players are performing the loop together, gradually, independently, drop elements from it, causing the loop to contract.

When all are each performing a single repeating sound, end together, either abruptly or gradually.

Prelude...

Prelude to the Aftertaste of a Trimodal Crossphase Loopback Transformer

for three voices

Preface

Before the performance,
choose who in the trio
will determine the piece's
pitches,
rhythms, and
sounds
and select the beginning phrase.

As alternatives,
someone may start the piece
with an spontaneous phrase which the others join, or
the piece may begin with
the closing phrase from the previous piece, and
the singers may wordlessly
negotiate the choices of roles early in the piece.

A somewhat goofy piece, and more difficult than it looks. It has never been performed, since attempts to rehearse it have generally dissolved in laughter (but I would like to do it successfully sometime).

Beginning

Sing a predetermined phrase repeatedly together.

Continuing

Continue to loop the phrase,
with changes determined
by the appropriate singers:

One changes the rhythms of the loop,
using the same number of sung notes
as the original phrase.

Another changes the pitches
with which the notes are sung.

A third changes the sounds or syllables
with which the notes are sung.

When each makes a change,
the others should incorporate the changes
into their own singing,
attempting to keep track of the others
and to be singing a phrase
that is current as of the last change.

Prelude...

You may drop out briefly at any point.
If someone drops out, the others should continue,
making their particular changes to the loop.

Some lag between the changes will inevitably occur.

Ending

Return to the original phrase and end together.

Scroll (A Lullaby for Gwendolyn)

for one or more voices or instruments

Vocal

Sing the sounds of the letters quietly and fluidly, pausing between stanzas. Improvise the other parameters, such as pitch and rhythm.

Instrumental

Assign a set of values for one parameter of your instrumental sound (pitch, tone color, articulation) to the set of letters, using unique values for each (but a common value for both instances of the letter “n”). Play the sets of letters quietly and fluidly, improvising the other parameters.

Ensemble

Perform versions of the solos, remaining more or less in sync. You may pause within stanzas then rejoin, as long as at least one person is performing the stream at any time.

Matthew Ross Davis's daughter, Gwendolyn Marie Davis, was born on March 9th, 1999. I first performed it (as a solo) on June 19 at Art-O-Matic in Washington, DC, with Gwen listening and cooing a descendant to it.

Scroll (A Lullaby for Gwendolyn)

Ylyoylydylyoylynlyoylydylyoylye
ylyoylydylyoylynlyoylydylyoylyw
ylyoylydylyoylynlyoylydylyoylye
ylyoylydylyoylynlyoylydylyoylyg
ylyoylydylyoylynlyoylydylyoylye
ylyoylydylyoylynlyoylydylyoylyw
ylyoylydylyoylynlyoylydylyoylye
ylyoylydylyoylynlyoylydylyoyly

Nynlnynonynlnyndnynlnynonynlnynn
nynlnynonynlnyndnynlnynonynlnyne
nynlnynonynlnyndnynlnynonynlnynn
nynlnynonynlnyndnynlnynonynlnynw
nynlnynonynlnyndnynlnynonynlnynn
nynlnynonynlnyndnynlnynonynlnyne
nynlnynonynlnyndnynlnynonynlnynn
nynlnynonynlnyndnynlnynonynlnyng
nynlnynonynlnyndnynlnynonynlnynn
nynlnynonynlnyndnynlnynonynlnyne
nynlnynonynlnyndnynlnynonynlnynn
nynlnynonynlnyndnynlnynonynlnynw
nynlnynonynlnyndnynlnynonynlnynn
nynlnynonynlnyndnynlnynonynlnyne
nynlnynonynlnyndnynlnynonynlnynn
nynlnynonynlnyndnynlnynonynlnyn

Mountains

Mountains

for multiple voices or instruments

Beginning

Someone either

- sings the beginning of a syllable
 - at any pitch
 - at any volume
 - starting with
 - any consonant or combination of consonants
 - followed by a sustained vowel sound, or
- plays the beginning of an instrumental sound
 - at any pitch
 - at any volume
 - starting with
 - any combination of flourishes or ornamentation
 - followed by a sustained sound.

Written after reading James Tenney's *Meta+Hodos*, working with his idea of the "klang" (a set of sounds perceived as a unit).

The piece was originally written for voices, but instruments were added for QslashC's 2000 Texas tour.

In practice, we determine the durations of the silences by feel rather than timers. To avoid losing restless audiences, they tend to be shorter than the score suggests.

Continuing

If you are sounding,
you may end your sound or syllable at any time.
If someone else is singing when you stop,
do not change
from the vowel that you have been singing
or from the sustained sound
that you have been playing.
If no one else is sounding when you stop,
you may
end your syllable
with any consonant or consonants, or
end your instrumental sound
with any ornamentation or flourishes.

Mountains

If you are not sounding and
someone else is sounding,
If you were the last person to start sounding,
do not start sounding again
until at least one other person
has started sounding
or until after a silence.
If you were not the last person
to start sounding,
you may begin
singing any vowel sound
or playing any sustained instrumental sound
on any note that sounds appropriate
with the notes already sounding.

If no one is sounding
and you were the last person to stop sounding,
do not start sounding again
until at least one other person
has started sounding.
If you were not the last person to stop sounding,
you may start sounding
any syllable or instrumental sound
starting with
any consonant or combination of consonants
or any ornamentation or flourishes
on any note,
after the silence has lasted at least
as long as the average length
of the sounds and silences
that preceded it.

Ending

The piece ends
after a predetermined duration
after a predetermined number
of sounds and silences
at an agreed signal
or by consensus.

“Repetition is a form of change”, said Brian Eno

“Repetition is a form of change”, said Brian Eno

for multiple voices

Starting

Sing the first pair of phonemes in the text
repeatedly,
at a steady tempo
and a steady pitch.

The text is drawn from *Oblique Strategies* by Brian Eno and Peter Schmidt.

This score was transcribed from a dream.

“Repetition is a form of change”, said Brian Eno

Continuing

Move to the next pair of phonemes,
repeating them
at the same or a different tempo
at the same or a different pitch
in a way that sounds appropriate
with what the others are singing

Move gradually through the pairs
in order,
changing at about the same time
that the others change.

Ending

On the last pair, “NJ”,
slow down gradually.

When all have slowed down
and are voicing the final phoneme together,
extend the sound together
and end.

“Repetition is a form of change”, said Brian Eno

Text Syllables

All vowel sounds are short
except “AY” (from “change”)

All pairs contain at least one voiced sound.

RE
EP
PI
IT
TI
ISH
SHU
UN
NI
IZ
ZU
UF
FO
OR
RM
MU
UV
VCH
CHAY
AYN
NJ

Ten Gates

for three voices

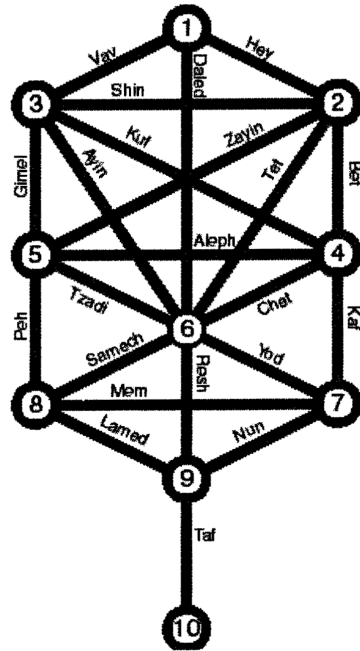
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A large work, composed for (but not yet performed by) Comma in 1999. It was clearly influenced by Stockhausen's *Stimmung*, with an attempt to use Jewish-influenced material and a non-linear form. While the piece uses the Kabbalistic Tree of Life as a structure, it is not particularly based on any aspects of mysticism other than those suggested by the names of the gates.

Ten Gates

The Ten Sefirot and 22 Lettered Gates

1. Keter
2. Chochmah
3. Binah
4. Chesed
5. Gevurah
6. Tiferet
7. Netzach
8. Hod
9. Yesod
10. Malkhut



General Instructions

The structure of *Ten Gates* corresponds to the kabbalistic concept and diagram of the Tree of Life. The diagram shows ten nodes or "gates", known as the Sefirot, and 22 paths between them¹. The paths connect each node to between three and eight others.

The score consists of

- a **START** page,
- an **END** page, and
- ten named pages, each corresponding to one of the Sefirot.

Each page contains:

- a way of **Entering**,
- a **Core**,
- a way of **Exiting**,
- if the page contains Hebrew words, a **Translation** of those words,
- optional **Notes** about the text or music, and
- a list of **Paths** leading out of the page.

1. Other versions of the Tree of Life exist, with different sets of paths. I chose to use the version defined by Rabbi Isaac Luria (as presented in Rabbi David A. Cooper's *God is a Verb: Kabbalah and the Practice of Mystical Judaism*) for its identification of the paths with the 22 letters of the Hebrew alphabet.

Beginning

A performance begins at the **START** page.

Begin by singing the **Entering** section, which mixes excerpts from the other sections. Change eventually to the closing state of the **Entering** section (which is a vocal fry).

When all are in that final state (that is, performing the vocal fry), perform the **Core** section of the page together.

When you have reached the end of the **Core** section, change together to singing the **Exiting** section.

From the **Exiting** section, change gradually into a free improvisation that resembles neither the **Exiting** section of the **START** page or the **Entering** section of any of the ten named pages, as shown in the **Paths** section of that page.

Continuing

Each page (except the **START**) is preceded by a free improvisation.

The improvisation must not sound like the **Exiting** section of the page that preceded it or the **Entering** section of any of the pages that are connected by **Paths** to the previous page.

One or more of the singers changes to singing the **Entering** section of a page to which there is a path from the previous page, and which they have not previously entered from that path.

The others join in until all are identifiably singing the same **Entering** section. (If different singers begin the **Entering** sec-

Ten Gates

tions for different pages, negotiate wordlessly until you are all at the same section. If others insist on moving to an **Entering** section along a path that you believe is not allowed (because you had already taken that path in that direction), it is better to yield and join them than for the performance to get stuck and break down.)

Once all are singing that **Entering** section, turn to that page and move into the **Core** section.

Once you have completed the **Core** section, move to the **Exiting** section.

Once all are in the **Exiting** section, move into a free improvisation that does not resemble the **Entering** section of any of the pages to which paths lead from this page (as listing in the page's **Paths** list).

Continue moving from page to page via this process, until you have reached every page at least once. You should not, however, take any **Path** (from a particular **Exiting** section to a particular **Entering** section) more than once.

Ending

Once you have performed every page at least once, you may proceed from the **Exiting** section of any page through a free improvisation to the **Entering** section of the **END** page.

Move through the page's **Entering**, **Core**, and **Exiting** section.

The piece ends when the last note of the **Exiting** section (the unison singing of “*yah*”) has trailed into silence.

START

Entering

Sing and mix excerpts from all other sections.

End with vocal fry.

Core

Sing melismatic phrases with the following words in their respective ranges, in order:

- Low: *min*
- Middle: *hameytzar*
- High: *karati*
- Falsetto: *yah*

Exiting

Slide down from singing *yah* until the voices are in widely differing registers.

Translation

Min hameytzar karati yah: From the depths I called to the Lord.

Ten Gates: START

Paths

Connects to all gates:

- | | |
|-------------|---|
| 1: Keter | Whisper slowly or perform other long unvoiced breath sounds. |
| 2: Chochmah | Sing quietly, staccato in a high register the words or phrases: “ <i>vayomer</i> ”, “ <i>y’hi</i> ”, “ <i>vayar</i> ”, “ <i>ki tov</i> ” in any order or combination. |
| 3: Binah | Sing together a quick repeating note. |
| 4: Chesed | Sing a steady long tone, differing from the tones that the others are singing, pulsing at a common rate. |
| 5: Gevurah | Sing varied steady tones in the middle of your range, each lasting about a second. |
| 6: Tiferet | Sing brief upward and downward slides, lasting up to two seconds and ranging up to about a minor third. |
| 7: Netzach | Hum smooth interweaving melodies, merging into an extended unison. |
| 8: Hod | Sing single tones with sharp attacks and longer decays on widely differing pitches. |

Ten Gates: START

9: Yesod

Sing angular, rhythmic, interlocking melodic lines with a common pulse.

10: Malkhut

On a single common pitch, without a common pulse, sing non-rhythmic phrases using arbitrary syllables.

Ten Gates: 1: KETER (Crown)

1: KETER (Crown)

Entering

Whisper slowly or perform other long unvoiced breath sounds.

Core

One person sings the sound “A”.

After a pause, another sings the sound “Y” on the same pitch.

After another pause, the third sings the sound “N” on the same pitch.

If you begin to sing one of the sounds at the same time that another sings it, continue together, ending at the same time. If two had sung together, the third should sing the next syllable. If all three had sung together, any may sing the next syllable.

Exiting:

After another pause, sing and sustain the three sounds simultaneously on the same pitch. (If multiple people come in with the same sound, shift around until one person is singing each.)

Smoothly move away from that pitch, creating interwoven melodies.

Translation

Ayin: nothingness.

Ten Gates: 1: KETER (Crown)

Paths

Hey	2: Chochmah	Sing quietly, staccato in a high register the words or phrases: “ <i>vayomer</i> ”, “ <i>y’hi</i> ”, “ <i>vayar</i> ”, “ <i>ki tov</i> ” in any order or combination.
Vav	3: Binah	Sing together a quick repeating note.
Daled	6: Tiferet	Sing brief upward and downward slides, lasting up to two seconds and ranging up to about a minor third.
	End	Sing repeating two-note phrases on improvised vowel sounds, breathing and pausing as needed.

Ten Gates: 2. CHOCHMAH (Wisdom)

2. CHOCHMAH (Wisdom)

Entering

Sing quietly, staccato in a high register the words or phrases:

“vayomer”, “y’hi”, “vayar”, “ki tov”

in any order or combination.

Core

Using the following phrase:

va-y’hee erev va-y’hee voker

Start by singing single phonemes from the phrase.

Gradually sing longer segments, until you are repeating the entire phrase in rhythmic unison with the others.

Exiting

Someone sings the word “*yom*”, sustaining the vowel. The others join the word, sustaining first the “o”, then the “m” together.

Ten Gates: 2. CHOCHMAH (Wisdom)

Translation

- *vayomer*: he said
- *y'hi*: let there be...
- *vayar*: he saw
- *ki tov*: that it was good
- *va-y'hee erev va-y'hee voker* : “And it was evening, and it was morning.”
- *yom* : day

Paths

Hey	1:Keter	Whisper slowly or perform other long unvoiced breath sounds.
Shin	3: Binah	Sing together a quick repeating note.
Zayin	5:Gevurah	Sing varied steady tones in the middle of your range, each lasting about a second.
Tet	6: Tiferet	Sing brief upward and downward slides, lasting up to two seconds and ranging up to about a minor third.
Bet	4: Chesed	Sing a steady long tone, differing from the tones that the others are singing, pulsing at a common rate.
	End	Sing repeating two-note phrases on improvised vowel sounds, breathing and pausing as needed.

Ten Gates: 3: BINAH (Understanding)

3: BINAH (Understanding)

Entering

Sing together a quick repeating note.

Core

After a rest, someone begins a different pitch. All join in, singing pulsing rhythmic patterns at a common tempo on that pitch.

Someone else adds a second pitch. All may now use both pitches in building patterns.

The third person adds a third pitches. All may now use all three pitches in building patterns.

Exiting

Return to singing single pitches, shifting around until each person is singing a different one of the three pitches. Sing a pulsing repeated chord.

Ten Gates: 3: BINAH (Understanding)

Paths

Vav	1: Keter	Whisper slowly or perform other long unvoiced breath sounds.
Shin	2: Chochmah	Sing quietly, staccato in a high register the words or phrases: “ <i>vayomer</i> ”, “ <i>y’hi</i> ”, “ <i>vayar</i> ”, “ <i>ki tov</i> ” in any order or combination.
Ayin	6: Tiferet	Sing brief upward and downward slides, lasting up to two seconds and ranging up to about a minor third.
Gimel	5: Gevurah	Sing varied steady tones in the middle of your range, each lasting about a second.
	End	Sing repeating two-note phrases on improvised vowel sounds, breathing and pausing as needed.

Ten Gates: 4: CHESED (Mercy)

4: CHESED (Mercy)

Entering

Sing a steady long tone, differing from the tones that the others are singing, pulsing at a common rate.

Core

Chant the following phrase three times, each time on a pitch that neither you nor the other singers have used for the phrase or for the entering pulse:

a-na el na r'fa na lah (pause)

Note: “*r'fa*” is sung as a single syllable.

Exiting

Sing brief phrases of two or three notes, each in a different register than the previous one.

Translation

a-na el na r'fa na lah: Please, God, heal her.

Ten Gates: 4: CHESED (Mercy)

Paths

Bet	2: Chochmah	Sing quietly, staccato in a high register the words or phrases: “ <i>vayomer</i> ”, “ <i>y’hi</i> ”, “ <i>vayar</i> ”, “ <i>ki tov</i> ” in any order or combination.
Aleph	5: Gevurah	Sing varied steady tones in the middle of your range, each lasting about a second.
Chet	6: Tiferet	Sing brief upward and downward slides, lasting up to two seconds and ranging up to about a minor third.
Kaf	7: Netzach	Hum smooth interweaving melodies, coming together to an extended unison.
	End	Sing repeating two-note phrases on improvised vowel sounds, breathing and pausing as needed.

5: GEVURAH (Strength)

Entering

Sing varied steady tones in the middle of your range, each lasting about a second.

Core

Build a continuing melody as follows:

Someone sings a note. The others join the note as immediately as possible.

Someone else changes to a different note. All immediately change to that note.

The melody moves from note to note, with each new note being introduced by someone other than the person who introduced the previous note.

You may use any pitches in the melody, regardless of whether the note has been used before.

You may pause within the melody as needed.

Exiting

After a pause, someone introduces a note.

Someone else, rather than joining the note, sings a different note.

The third person sings another different note.

Hold the chord, then depart from it.

Ten Gates: 5: GEVURAH (Strength)

Note

This movement is inspired by the work of Peggy Seeger, who was said to have disconcerted those against whom she was leading protests by having her group sing unresolving, nondirectional melodies.

Paths

Gimel	3: Binah	Sing together a quick repeating note.
Aleph	4: Chesed	Sing a steady long tone, differing from the tones that the others are singing, pulsing at a common rate.
Tzadi	6: Tiferet	Sing brief upward and downward slides, lasting up to two seconds and ranging up to about a minor third.
Peh	8: Hod	Sing single tones with sharp attacks and longer decays on widely differing pitches.
	End	Sing repeating two-note phrases on improvised vowel sounds, breathing and pausing as needed.

Ten Gates: 6: TIFERET (Beauty)

6: TIFERET (Beauty)

Entering

Sing brief upward and downward slides, lasting up to two seconds and ranging up to about a minor third.

Core

Sing the following phrase freely, in rhythmic unison:

121\ 12143 434\ 434 3131\

where:

- a blank represents a pause
- the “\” represents a downward slide from the preceding pitch
- the numbers [1234] represent notes in ascending pitch order. The notes do not have to be equally spaced in pitch, and should be different from those sung by the other singers for the same number.

Exiting

Improvise similarly, at first using the pitches that you used in the core, then using others.

Ten Gates: 6: TIFERET (Beauty)

Paths

Daled	1: Keter	Whisper slowly or perform other long unvoiced breath sounds
Tet	2: Chochmah	Sing quietly, staccato in a high register the words or phrases: “ <i>vayomer</i> ”, “ <i>y’hi</i> ”, “ <i>vayar</i> ”, “ <i>ki tov</i> ” in any order or combination.
Ayin	3: Binah	Sing together a quick repeating note.
Chet	4: Chesed	Sing a steady long tone, differing from the tones that the others are singing.
Tzadi	5: Gevurah	Sing varied steady tones in the middle of your range, each lasting about a second.
Yod	7: Netzach	Hum smooth interweaving melodies, merging into an extended unison.
Samech	8: Hod	Sing single tones with sharp attacks and longer decays on widely differing pitches.
Resh	9: Yesod	Sing angular, rhythmic, interlocking melodic lines with a common pulse.
	End	Sing repeating two-note phrases on improvised vowel sounds, pausing as needed.

Ten Gates: 7: NETZACH (Victory)

7: NETZACH (Victory)

Entering

Hum smooth interweaving melodies, coming together to an extended unison.

Core

The singers build phrases by singing through the following ordered list of sounds on a common pitch:

m n oo oh r l uh ah a' eh ee

(where *a'* is the short “a” in “cat”).

You may only proceed to a sound when you have sung the previous sound at least once.

Build phrases by moving forward and backward within the list.

You may not skip from one sound to a sound that is not next to it within a phrase.

A new phrase, however, may begin on any sound that you have already sung at least once.

When you have reached the end of the list, sing the phrase “*eh-ee-eh*” repeatedly.

Exiting

When all are singing that phrase, sing the phrase “*ehyeh asher ehyeh asher*” repeatedly, lengthening the “sh” sound each time, eventually singing the sound “sh” continuously.

Translation

Ehyeh asher ehyeh: I am that which I am.

Paths

Kaf	4: Chesed	Sing a steady long tone, differing from the tones that the others are singing, pulsing at a common rate.
Yod	6: Tifereth	Sing brief upward and downward slides, lasting up to two seconds and ranging up to about a minor third.
Mem	8: Hod	Sing single tones with sharp attacks and longer decays on widely differing pitches.
Nun	9: Yesod	Sing angular, rhythmic, interlocking melodic lines with a common pulse.
	End	Sing repeating two-note phrases on improvised vowel sounds, breathing and pausing as needed.

Ten Gates: 8: HOD (Glory)

8: HOD (Glory)

Entering

Sing single tones with sharp attacks and longer decays on widely differing pitches.

Core

Using the words of the following phrase, introducing them in order:

m'lo kol ha'aretz kvodo

Someone sings the first word. The others then also sing that word.

Someone (other than the person who started the first word) sings that word again, or introduces the next word. The others then also sing that word.

You may go back to words that have already been sung.

Exiting

Sing the word “*kvodo*” and slide in rough unison up to a common high pitch.

Move slightly apart in pitch so that the notes create rich undertones.

Translation

m'lo kol ha'aretz kvodo: The world is filled with his glory.

Paths

Peh	5: Gevurah	Sing varied steady tones in the middle of your range, each lasting about a second.
Samekh	6: Tiferet	Sing brief upward and downward slides, lasting up to two seconds and ranging up to about a minor third.
Mem	7: Netzach	Hum smooth interweaving melodies, coming together to an extended unison.
Lamed	9: Yesod	Sing angular, rhythmic, interlocking melodic lines with a common pulse.
	End	Sing repeating two-note phrases on improvised vowel sounds, breathing and pausing as needed.

9: YESOD (Foundation)

Entering

Sing angular, rhythmic, interlocking melodic lines with a common pulse.

Core

Using the same pulse, one singer sings distinct notes, eight beats long.

Another sings eight beat phrases with common rhythm patterns, leaving the first beat (on which the first singer changes pitch) silent, and improvising pitches that sound appropriate to the sustained notes that the first singer sings.

The third improvises over the others' notes.

The three voices should switch roles at least once.

Exiting

One singer sings repeated long tones on a single pitch.

The others let the pulse gradually dissipate.

Ten Gates: 9: YESOD (Foundation)

Paths

Resh	6: Tiferet	Sing brief upward and downward slides, lasting up to two seconds and ranging up to about a minor third.
Nun	7: Netzach	Hum smooth interweaving melodies, coming together to an extended unison.
Lamed	8: Hod	Sing single tones with sharp attacks and longer decays on widely differing pitches.
Taf	10: Malkhut	On a single common pitch, without a common pulse, sing non-rhythmic phrases using arbitrary syllables.
	End	Sing repeating two-note phrases on improvised vowel sounds, breathing and pausing as needed.

Ten Gates: 10: MALKHUT (Kingdom)

10: MALKHUT (Kingdom)

Entering

On a single common pitch, without a common pulse, sing non-rhythmic phrases using arbitrary syllables.

Core

Sing subsets of the descending major scale “Do-Ti-La-Sol-Fa-Mi-Re” (which might be, for example, “C-B-A-G-F-E-D”), always starting from a common “Do”.

You may only add in a pitch when the previous has been sung at least once. Thus, for example, you may not sing “Do-Ti-La-Sol” until someone had sung “Do-Ti-La” at least once.

Phrases may echo, overlap, and occur simultaneously.

The section ends when the entire phrase has been sung at least once. (Do not continue to the “Do” at the bottom of the octave.)

Exiting

Sing flowing meloding phrases incorporating frequent large leaps in pitch, and separated by silences.

Ten Gates: 10: MALKHUT (Kingdom)

Paths

Taf	9: Yesod	Sing angular, rhythmic, interlocking melodic lines with a common pulse.
	End	Sing repeating two-note phrases on improvised vowel sounds, breathing and pausing as needed.

Ten Gates: END

END

Entering

With a common pulse:

Sing repeating two-note phrases on improvised vowel sounds, breathing and pausing as needed.

Gradually change to three-note phrases, then four, five, and six.

Come together and repeat the six-notes pattern together several times.

Try not to change phrase lengths at the same time as the other singers.

Other than when you begin with the two-note phrases and come together with the six-note phrases, the three singers should not all share a common phrase length, though two singers may.

Core

Continuing with the same pulse and six-beat phrase length, sing repeated patterns with the word “*ananni*”.

After a while, change to the word “*bamerkhav*”.

Then use both words “*ananni bamerkhav*”.

Ending:

Sing the word “*Yah*” on a quiet high note.

Sustain your pitch then slide together until all are on the same pitch.

Hold the note then fade into silence.

Translation:

ananni bamerkhav yah: God answered me with abundance.

Gray Code (The Ensemble)

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In late 1999, I began to play in a duo with guitarist Jonathan Matis and, in a group that become the ensemble SciDolomRah, with percussionist Brian Fending. We quickly became a quintet including the members of Comma, named (by Tom Bickley once again) Gray Code.

Gray Code took over much of the electronic work that Comma had been doing, with Comma shifting back into a more acoustic format. It also has had a somewhat more flexible lineup, with as few as two original members appearing in a performance with invited others.

Gray Code for Five

Gray Code for Five

for five voices or instruments

A unique group of one to five members plays
in each of the 32 events.

At each transition,
one player begins or stops sounding.

Each event is shown by a single row on the chart,
numbered from 0 to 31.

Each player's part is shown by a single column on the chart,
labelled A through E.

This score was developed communally, at first by the members of Comma, and then by the members of Gray Code. Jonathan Matis designed the original spreadsheet from which we performed.

“On Gray Code and Other Algorithms” on page 32 describes the mathematical basis for this piece.

Gray Code for Five

The cell for that player and event
shows the player's action at the start of the event:

+	Begin playing
-	End playing
=	Continue playing
(blank)	Continue silence.

A player may, at any time,
gesture to indicate or question
the current step number.

In case of disagreement,
negotiate wordlessly to arrive at consensus.

If no consensus can be found,
move to the earliest step number
being suggested.

Gray Code for Five

	A	B	C	D	E	Graph				
0										
1	+					1				
2	=	+				1	2			
3	-	=					2			
4		=	+				2	3		
5	+	=	=			1	2	3		
6	=	-	=			1		3		
7	-		=					3		
8			=	+				3	4	
9	+		=	=		1		3	4	
10	=	+	=	=		1	2	3	4	
11	-	=	=	=			2	3	4	
12		=	-	=			2		4	
13	+	=		=		1	2		4	
14	=	-		=		1			4	
15	-			=					4	

Gray Code for Five

16				=	+				4	5
17	+			=	=	1			4	5
18	=	+		=	=	1	2		4	5
19	-	=		=	=		2		4	5
20		=	+	=	=		2	3	4	5
21	+	=	=	=	=	1	2	3	4	5
22	=	-	=	=	=	1		3	4	5
23	-		=	=	=			3	4	5
24			=	-	=			3		5
25	+		=		=	1		3		5
26	=	+	=		=	1	2	3		5
27	-	=	=		=		2	3		5
28		=	-		=		2			5
29	+	=			=	1	2			5
30	=	-			=	1				5
31	-				=					5

AntiGray for Five

AntiGray for Five

for five voices or instruments

A unique group of one to five members plays
in each of the 32 events.

At each transition,
either four or all five of the players
begin or stop sounding.

Each event is shown by a single row on the chart,
numbered from 0 to 31.

Each player's part is shown by a single column on the chart,
labelled A through E.

While "Gray Code for Five" arranged its combination for the least possible disruption between steps, this piece arranges the combinations for the most disruption. "On Gray Code and Other Algorithms" on page 32 describes the mathematical basis for this piece.

Mathematical assistance by Joe Noakes.

Original spreadsheet design by Jonathan Matis.

The cell for that player and event
shows the player's action at the start of the event:

+	Begin playing
-	End playing
=	Continue playing
(blank)	Continue silence.

Any player who is to start or stop
may trigger the transition
by clearly signalling,
audibly or visually.

The others should respond
as quickly as possible,
avoiding 'jump-cut' abruptness.

A player may, at any time,
gesture to indicate or question
the current step number.

In case of disagreement,
negotiate wordlessly to arrive at consensus.

If no consensus can be found,
move to the earliest step number
being suggested.

AntiGray for Five

	A	B	C	D	E	Graph				
0										
1	+	+	+	+	+	1	2	3	4	5
2	=	-	-	-	-	1				
3	-	+	+	+	+		2	3	4	5
4	+	=	-	-	-	1	2			
5	-	-	+	+	+			3	4	5
6		+	-	-	-		2			
7	+	-	+	+	+	1		3	4	5
8	-	+	=	-	-		2	3		
9	+	-	-	+	+	1			4	5
10	=	+	+	-	-	1	2	3		
11	-	-	-	+	+				4	5
12	+		+	-	-	1		3		
13	-	+	-	+	+		2		4	5
14		-	+	-	-			3		
15	+	+	-	+	+	1	2		4	5
16	-	-	+	=	-			3	4	

AntiGray for Five

17	+	+	-	-	+	1	2			5
18	=	-	+	+	-	1		3	4	
19	-	+	-	-	+		2			5
20	+	=	+	+	-	1	2	3	4	
21	-	-	-	-	+					5
22		+	+	+	-		2	3	4	
23	+	-	-	-	+	1				5
24	-	+		+	-		2		4	
25	+	-	+	-	+	1		3		5
26	=	+	-	+	-	1	2		4	
27	-	-	+	-	+			3		5
28	+		-	+	-	1			4	
29	-	+	+	-	+		2	3		5
30		-	-	+	-				4	
31	+	+	+	-	+	1	2	3		5
end	-	-	-		-					

Ghost Dervish Beach (gamelan arabica)

Ghost Dervish Beach (gamelan arabica)

for from three to seven musicians
with pitched instruments or voices,
and either an unpitched electronic pulse
or one or more musicians on unpitched instruments

I first wrote this piece for Comma, who performed it together with soprano Linh Kaufmann and violinist Caroline Lowndes Smith on June 20, 1998. We have since performed it several times with Gray Code.

The performances have tended to be somewhat simpler than the score: we have omitted the unpitched pulse or instruments, usually starting the piece with one player (usually Matt Davis on guitar) playing the opening D steadily. We have also never used the soloing option, switched instruments during the piece, or had people with portable instruments in motion while playing.

The title of the piece is an homage to some of the minimalist works that inspired it, especially Anthony Braxton's "Ghost Trance" pieces, Terry Riley's "Persian Surgery Dervishes", and Philip Glass's "Einstein on the Beach". (The title should include a Steve Reich reference too, but we didn't find one that felt right within it.)

Ghost Dervish Beach (gamelan arabica)

In general

This piece is in the mode:

D Eb F# G A Bb C# D

sometimes called the "Jewish minor" or "hijaz mode".

The volume should be
loud enough to form
an immersive environment for the listeners,
but not so loud that
the clarity of the individual voices is lost.

If possible,
the fixed instruments and, if needed, their loudspeakers
should surround the audience,
and singers and people playing portable instruments
should be free to move around.

(If this is not possible,
more conventional placement will suffice.)

Ghost Dervish Beach (gamelan arabica)

You may change instruments
in the course of the piece,
and, with another's consent,
switch to the other player's instrument.

Beginning

The unpitched instruments (or electronic pulse)
begin by playing a quick pulse
at about 4 beats per second.

This pulse continues throughout the piece.

You may embellish the pulse
and may drop out briefly during the piece
if the pulse is clearly identifiable
from what others are playing at the time.

Continuing

The Ensemble Path

The other performers begin by
playing repeating rhythmic patterns
in the tempo of the pulse
of any length
on the pitch D
in any octave.

Ghost Dervish Beach (gamelan arabica)

Over the course of the piece,
move gradually
through the following groups of pitches
using the groups in the order listed,
but combining the pitches
 using any subset of the current group
 in any order
 in any octave
to form repeating rhythmic patterns
in the tempo of the pulse.

You may pause at any time,
as long as at least one person is playing patterns,
and may change patterns as often as you wish,
 but must play each pattern that you play
 at least twice.

Ghost Dervish Beach (gamelan arabica)

The groups are:

1. D
2. D Eb
3. D Eb F# G
4. D Eb F# G A Bb C# D
5. Bb C# D Eb F#
6. F# G A Bb
7. G A
8. D Eb F# G A Bb C# D (again)
9. A Bb C# D
10. C# D
11. D

Everyone playing patterns
should move through the groups
at approximately the same pace.

You can move to the next group when you believe
that everyone is playing your current group
or the group after it.

Do not move to the next group
if you hear anyone playing the group
before your current group.

(Since some groups are subsets
of those that precede or follow them,
it may be hard to tell if everyone has caught up.
Use your best judgment.)

Ghost Dervish Beach (gamelan arabica)

You may develop and notate patterns
as you work with the piece
before the performance
and may work with these notes
in performance.

You may synchronize pattern lengths
from time to time with other players,
and play in unison
or parallel or contrary motion with them.

These should, however, not be preplanned,
but may be allowed to happen
(or allowed not to happen)
as they occur during the improvisations.

Soloing Option

Once the ensemble is playing the first group,
any player
(though not more than half the ensemble)
may depart from the patterns
and solo on top of them.

Ghost Dervish Beach (gamelan arabica)

The solo should be significantly different
from the patterns being played,
and may incorporate
pitches outside the current group,
glissandi, non-pitched sounds, long tones,
and other materials.

It must, however, sound appropriate
within the soundscape being played
in terms of tone color, balance, style,
and other choices.

Ending

Once the pitched instruments are again
playing only the D (as Group 11),
gradually drop out, one at a time.

If instruments are playing the pulse,
continue for a brief time,
then end.

If the pulse is electronically supplied,
end it when the last performer stops,
or as soon as possible afterwards.

Instant Music

for multiple voices or instruments

Beginning

Someone makes a sound
with a clear, quick attack
and a sustain and decay
of any duration.

The others either remain silent
or respond with other sounds
with clear, quick attacks
and sustains and decays
of any duration
immediately upon hearing the first sound
so that the group of sounds,
including the first,
sound like they began
in the same instant.

Another take (like “Mountains” on page 296) on James Tenney’s idea of the “klang”. It evolved into the later piece “Lightning” on page 354.

Instant Music

Once the initial group of sounds has started,
remain silent
or continue the sounds
that you are currently sustaining
until it is clear that the initial instant has passed.

If necessary,
you may let continued sounds end gently
so that the ending of the sound
does not form another clear event.

Continuing

After sufficient time has passed,
anyone may start a new sound
with a clear quick attack
and a sustain and decay
of any duration.

The others may remain silent,
respond immediately with other sounds
or abruptly end sustained sounds
in the same instant,
or continue sounds they are currently sustaining.

Continue playing sounds
with attacks grouped together
into discrete instants
separated by the sustaining
of sounds and silences between them.

Ending

The piece ends
when everyone has started sounds
at the same instant,
after a predetermined amount of time,
at a predetermined signal,
or by consensus.

Note

This sounding may form a layer
alongside free improvisation
or other structured layers.

Lightning

Lightning

for multiple voices or instruments

Beginning

Someone plays a brief sound or cluster of sounds.
Everyone else remains silent
until that sound has clearly ended.

Continuing

Play brief sounds or cluster of sounds.
Do not begin a sound
when anyone else's brief sound is playing.

If two or more people begin sounds simultaneously,
continue playing together
for the duration of a full breath,
extending your phrases together
in whatever way seems appropriate.

A followup to "Instant Music" on page 351, working from the visual image of separate spatial areas of sound and flashes of lightning darting between them (represented by the collective phrases).

Others may continue to play their brief sounds
while the longer collective phrases are happening,
without beginning brief sounds
when others' brief sounds are playing.

If two or more begin sounds simultaneously.
continue together into the longer phrases.

Players may signal each other
to sound together
and play longer phrases,
may let the combinations happen by chance, or
may combine these approaches.

Ending

The performance ends
after a predetermined duration,
at a predetermined signal, or
by consensus.

Worry Beads

Worry Beads

for one or more instruments

a G# a# G b F# c F c# E d D#
a# a b G# c G c# F# d F d# E
G# G a F# a# F b E c D# c# D
b a# c a c# G# d G d# F# e F
G F# G# F a E a# D# b D c C#
c b c# a# d a d# G# e G f F#
F# F G E G# D# a D a# C# b C
c# c d b d# a# e a f G# f# G
F E F# D# G D G# C# a C a# B
d c# d# c e b f a# f# a g G#
E D# F D F# C# G C G# B a A#
d# d e c# f c f# b g a# g# a

An adaptation of some of the ideas in *Simple Composition* by Charles Wuorinen (hence the name).

Worry Beads

In this chart,
 pitches in capital letters are in a single octave,
 A through G#,
 and pitches in lowercase are in the octave above it.

Starting from the a in the upper left corner,
move among the notes in the grid,
 by single steps,
 horizontally or vertically,
 each note following a note
 directly adjacent to it
 with any timbres and any rhythm.
 with or without a pulse.

End when you reach the a in the lower right corner
 playing it repeatedly
 until everyone has reached that note
 and is repeating it.

Obscure, in Coral

Obscure, in Coral

for multiple voices or instruments

The Source Score

The source score can be
any primarily homophonic composition
for multiple voices or instruments.
For example, Bach's chorale setting of
"Ein Feste Burg ist unser Gott"
would work well.

For polyphonic instruments
such as pianos or guitars,
each note of the voice's part
should be considered individually
when played on that instrument.

A tribute, in a sense, to the composers and recordings on the Obscure record label, which Brian Eno ran in the 1970s, and to the choral work of Cornelius Cardew. The piece was inspired by some of the near-simultaneities that arose when Comma recorded Matt Davis's "Prelude for Three".

If the source is not in the public domain,
performers should obtain permission
from the copyright holder
before performing a version of this piece
that is based on it.

Definitions

A chord is a set of notes
for one or more voices
that begin at exactly the same time in the score
regardless of when each ends.

Each voice that is included in that set of notes
has a note in the chord.

Obscure, in Coral

Procedure

For each chord in the source score,
in the order that the chords occur:

If it is the first chord,
or if you were not playing a note
from the previous chord:
If you have a note in the chord,
start and sustain that note.
Stagger the entrances
so that each begins, if possible,
at a different time than any other person
who has a note within the chord.
The order and timing of the voices' entrances
should vary throughout the performance.

If you were already playing
a note from a previous chord:
If you have a note in the current chord,
 If the pitch of the note
 in the current chord is different
 from the note in the previous chord,
 change smoothly to the new note
 without a pause between them.
 If the pitch of the note
 in the current chord is the same
 as the pitch in the new chord,
 distinguish the notes in some way,
 such as a change in tone color,
 a clear attack in the new note,
 or a quick pause between them.
If your note continues past
the start of the current chord,
sustain it while
 those who have notes in the chord
 begin them.

Obscure, in Coral

Once everyone who has notes within that chord has begun them:

If you are sounding a note that ends
before the start of the next chord,
stop sounding soon after
all the notes within the current chord
have begun.

If you are sounding a note that ends
at the start of the next chord,
if that note is followed
by a note in the next chord
without a rest between them,
stop sounding soon after
all the notes within the current chord
have begun.

If you are sounding a note that is
immediately followed
by a note in the next chord,
sustain that note
until you begin the next note.

If you are not sounding a note,
remain silent until the next chord
in which you have a note.

If, on a polyphonic instrument,
the relationship of notes
in one chord to the next is ambiguous
(such as, for example,
two notes in one chord leading into
a single note in the next),
use your best judgment as suggested
by principles of effective voice leading.

The piece ends
when all who are sounding during the last chord
have ended their notes.

If the source score indicates that the piece repeats
(such as for new verses),
these repeats may be used or omitted,
by consensus.
The performances of each repeat
should differ from each of the previous
performances of the section.

Disjoinder

Disjoinder

for multiple voices or instruments

Beginning

Someone begins playing
with a clear, quick attack,
continuing in any manner,
but without including extended silence.
The others either remain silent
or respond by beginning to play
in any manner
immediately upon hearing the first sound
so that all who are playing,
including the first,
sound like they began
in the same instant.

An attempt to achieve the type of small-group combinations and discontinuity achieved in “AntiGray for Five” on page 340 without reliance on a predetermined chart of successive events. It also follows up on “Instant Music” on page 351 in having all the players in an event begin simultaneously (which has proven difficult to communicate and implement). This piece evolved into “Tapas” on page 367.

Continuing

Someone who is playing
stops playing.

All the others who are playing
stop playing soon afterward,
ending their phrases appropriately.

Someone who was not playing in that grouping
begins playing.

If you were not playing in that grouping,
you may either either remain silent
or respond by beginning to play
in any manner
immediately upon hearing the first sound.

If you were playing in that grouping,
remain silent as the new grouping plays.

The performance continues with
any number of these segments.

You may only play in a segment
if you have not played in the segment before it.

Disjoinder

(If all the performers are playing in a segment,
anyone can play in the next segment.
This can only happen, however,
in the opening segment,
or by error,
or in a segment that happens
because of this rule,
and should be avoided.)

Each segment should be fairly short,
averaging not more than a minute.

Try to avoid 'jump-cut' abruptness
in the transitions,
continuing and reviving
ideas from previous segments
in new segments, as appropriate.

Ending

The piece ends
when all remain silent
for long enough
that it is clear that no one
is beginning a new segment.

Tapas

for multiple voices or instruments

One or more (but not all) of the players play a brief event.

When they have finished, anyone who did not play in that event can choose to play in the next event.

Continue similarly, with no one playing in two consecutive events.

End after a predetermined time or by consensus.

If errors or confusions happen, work it out appropriately and with good will (assuming the good will of the others).

A distillation of “Disjoinder” on page 364, dropping the requirement that all musicians in an event start together and changing it into a form that could be explained very quickly to the performers and audience.

Tapas are a traditional Spanish cuisine, made up of an array of small, individual meat or vegetable dishes. We first performed this piece under the name “Sonic (Vegan) Tapas”, because some of the performers who do not eat animal products preferred not to perform in an event named for a meat dish.

An interesting ambiguity arose in performing this on the QslashC 2000 tour: it was hard to tell if a series of events separated by silence were part of the same event or distinct. It was also unclear whether, if a person was involved in a piece by the action of another (such as being used as a prop), that person should be considered as having been a performer in the event and therefore ineligible for the next event. We agreed to leave this issue unresolved.

Towers

Towers

for multiple voices or instruments

Beginning

Someone plays a sound having
a quick attack and
a longer sustain or decay.

An attempt to create a type of improvised homophony. This piece evolved from the series of pieces including “Mountains” on page 296, “Instant Music” on page 351, and “Lightning” on page 354. It was influenced by the same works that influenced those, as well as by Bach chorales and John Cage’s “Sculptures Musicales”.

One unexpected feature of the piece quickly became audible: due to people’s differing reaction times, a person’s immediate reaction to a sound might appear to another person to be an entirely new event, to which that person might then respond, triggering other responses in a chain reaction. We realized that this was similar to the response patterns of my father’s six dogs when they get into barking frenzies, and often refer to this piece as “My Father’s Dogs”.

One or more other people
immediately play sounds having
a quick attack and
a longer sustain or decay,
beginning them quickly enough
that they sound like part of
the same event as the first sound.

Continuing

After enough time has passed
that the next sound
would clearly begin a new event,

someone plays another sound having
a quick attack and
a longer sustain or decay.
The sound may start from silence,
or continue directly from a sound
that that person is already playing.

Towers

One or more other people
immediately play sounds having
a quick attack and
a longer sustain or decay,
beginning them quickly enough
that they sound like part of
the same event as that sound,
either starting from silence
or continuing directly from sounds
that they are already playing.

Continue like this,
with clusters of sounds
played as streams of grouped events.
Each event must include
at least one player other than
the one who made the first sound.

Players may group together
into distinct streams
for part or all of the performance.

Ending

The piece ends
after a predetermined amount of time,
at a signal,
or by consensus.

Recent Music for Other Ensembles

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A few pieces for other groups (some of which incorporated members of Comma and Gray Code).

Over the years, a few other groups have performed my verbal scores, often taking them in unexpected directions. Two outside groups have performed my “Walden Sounds” on page 155. Each performance, while yielding unique pleasures, revealed ambiguities in the scores as written that surprised me. To a great extent, the teaching of works like these rests in an oral tradition, where the cracks within the language, once exposed, can be filled in or intentionally left open.

I’m eager to write more pieces for outside groups, especially large ensembles, should the chance arise.

Hi, My Name is G Sharp

Hi, My Name is G Sharp

for multiple people
playing identical portable instruments

Preparing

Each person selects or is assigned
a unique pitch
from a contiguous set of pitches.
(Any tuning may be used.)

For example,
in a group of twelve people
playing in equal temperament,
each would have a unique pitch
from within a single octave.

To help the players
of the various pitches
to identify each other
(in what may be a crowded and
confusing situation),
they may wear signs or name tags
indicating their pitches.

Written as an “icebreaker” for a class of beginning improvisors.

Beginning

Starting from silence,
one or more people play
long tones or rhythmic patterns
on their individual pitches.

Continuing

You may play long tones,
rhythmic patterns,
or other combinations
at any time
in any articulation.

Move around the space,
joining up with others
with whom you wish to collaborate.

Wordlessly organize and negotiate
to create sounds and silences together
that work well with
what others are playing.

Ending

The piece ends
after a predetermined amount of time
or by consensus.

Candles for Sarah

Candles for Sarah

for multiple voices

Beginning

Sing the syllable “donn”
(pronounced as in German)
simultaneously
on a steady pitch in a middle range.
The start of the syllable can be triggered
throughout the performance
either intuitively
or through visual or other signals.

After a pause, sing it again,
simultaneously
on the same pitch or one near it.

If you triggered the singing of the previous syllable,
wait for another person to trigger the current one.

Composed in memory of Sarah Angel Easterwood (09/19/1978 — 10/25/1998), a close friend of a close friend. A large group of friends premiered this piece in Austin, Texas, on December 30, 1998. Sarah’s mother, Mysti Easterwood, attended the performance.

Continuing

Continue to repeat the syllable, as before,
singing it with different lengths
and with pauses of different lengths,
always starting the syllable simultaneously.
Independently, switch to singing the syllable
on a pitch rising slowly from the bottom of your range.

Once everybody is singing the rising pitches,
independently move to other ways of singing the syllable,
with different pitches, durations, and articulations,
always starting the syllables simultaneously.

Ending

Independently, move to singing the syllable in a high range
as a wavering between two pitches,
each person using differing pitches
and a different rate of wavering.

When every one is singing the wavering pitches,
switch to singing single high pitches
near the pitches that the others are singing.
Move the pitches close enough
to bring out beats and difference tones.
End together.

Shimmer/Ascension

Shimmer/Ascension

for handbell choir

This piece consists of two elements
that are played together.

Shimmer is an ensemble background
that continues throughout the performance.

Ascension is a series of solos and duets
that involve different players
throughout the performance.

When you are not involved in playing **Ascension**,
you should be playing **Shimmer**.

Other elements could be created to be played
together with **Shimmer**
or with **Ascension**
or with both.

The performance proceeds
without an indicated key or tempo.

Composed at the request of a member of a local handbell choir (though
the choir has decided, for now, to stick to more traditional material).

Shimmer/Ascension

A conductor may work with the players
to help with the balance of the ensemble
and with the progress
among the parts of the performance.

Shimmer

Shimmer

Beginning

Starting together,
ring one of your bells quietly,
letting it vibrate.

When its sound has faded away, either
ring the same bell again, or
ring another of your bells
that is a half-step away.

(For example, after ringing an A,
you may either ring the A again
or ring A flat or A sharp.)

Continuing

Continue in this way throughout the piece,
staying with the same bell
or moving among bells by half-steps
when you feel that it is time to do so.

Ending

After a predetermined amount of time,
at a signal,
or by consensus,
let your last note fade away
until all the bells are silent.

Ascension

Ascension

Beginning

Starting with the player
of the lowest set of bells:

Play a solo improvisation,
more prominent than the ensemble background,
sounding your bells
in any way that seems appropriate,

If you choose not to improvise,
you may create a part for yourself ahead of time,
or use a previously created part,
or play your part of the ensemble background
more prominently than usual.

The player of the next higher set of bells
then joins that player in a duet,
more prominent than the ensemble background,
sounding the bells
in any way that seems appropriate,
interacting with each other.

The lower player then drops back
into the background texture.

Continuing

Proceed upward through the players, in order,
with each

- joining a duet with the next lower player,
- playing briefly solo when that player drops out,
- being joined in a duet by the next higher player,
- then dropping back into playing the ensemble background.

Ending

The player of the highest bells
continues in a solo
when the next lower player drops back
then drops back into the ensemble background.

Ascension

Alternate Method

If the players are positioned
so that each can see and hear all the other players:

The series of solos and duets
can proceed in any order,
except that you may only
enter into a duet with a player
if you have not yet played a duet together
in that performance.

Any player may choose
to refrain from participating in the foreground
and remain in the ensemble background
throughout the performance.

The piece may end
when all players have returned
to the ensemble background.

The group may agree upon a signal
(such as the end of a processional)
at which time they must
return to the background and end,
or they may end by consensus.

Welcome, Elijah

for one or more voices, instruments, or dancers

The Environment

The piece integrates
the sounds of the performance environment
with the sounds of the performers.
If the performance space environment
contains too few sounds,
you may place at least two microphones
in a more sonically active space
(such as outdoors)
and direct their output to amplifiers and speakers

Composed for a joint performance by Comma and the Choir of the Church of St. Stephen and the Incarnation in Washington, DC.

As we set up for the performance, we decided that too few sounds were coming in through the windows, so we set up a microphone pointing out the window and an amplifier in the space. That picked up too little sound too, so for the performance we opened all the doors and windows. Enough sound came in for the piece to proceed successfully.

We have also used this piece at improvisation workshops as an opening exercise in listening and sounding.

The title refers to the Jewish custom of opening the doors of the house to welcome the Prophet Elijah to the Passover Seder.

Welcome, Elijah

arranged in the performance space
so that their relationship
to the performers and audience
is the same as that of the microphones
to the virtual listener
in the monitored space.

If this is not possible,
you may use an unedited accurate recording
of an active space
from the point of view of a stationary listener.

Ideally, each performance of the piece will use
a previously unheard segment of the recording
so that the performers are not familiar with
the order and distribution of the events
to which they will respond.

Preparing

Decide on a cueing sound or class of sounds
to which you will respond
from those that occur
in the performance environment.

Determine what sound or action
you will use as a response,
and, optionally,
how selected parameters of the sound
will determine aspects of your response.

Your response must be
loud or active enough
to be perceived by the audience,
yet quiet enough that you can clearly hear
the end of the cueing sound.

The duration of the response should closely match
the duration of the cueing sound.
For example, a response to a dog bark
would be short,
and a reaction to a passing siren would last
as long as the siren takes to pass.

Welcome, Elijah

If you have not had a chance
to listen to this environment
before the performance,
you may quickly make these choices
in its opening moments.

Beginning

The performance begins
at a predetermined signal
or by consensus.

If using a remote or recorded environment,
the sound is gradually faded up
to mix with the room ambiance.

Continuing

The performance continues,
with performers reacting to their cueing sounds
in as close to real time as possible
and remaining still
when the cueing sounds are not happening.

Performers may join and exit the performance
as it goes on.

Optionally, audience members may be allowed
to join the performance.
Those who wish to join
a performance in progress
should be provided a copy of this score, and
should quietly direct any questions
to a person who has volunteered
to answer them.¹

1. This feature of the piece is directly inspired by the score of Robert Ashley's "She Was A Visitor".

Welcome, Elijah

Ending

The performance ends
at a predetermined time
or a predetermined signal
or by consensus.

If using a remote or recorded environment,
the sound is gradually faded down to silence.

Raising the Sukkah of Sound

for multiple voices

“Light waves of joy continuously flow; one wave ascends and immediately, without pause, a second wave, brighter and more cheerful than the first, descends and emanates. Yet the sukkah is stationary and therefore appears to be one sukkah, whereas in truth, every second, every moment, there is a completely new sukkah.”

*Rav Avraham Yitzchak Kook,
Celebration of the Soul, p.70*

Aramaic Source Text (by Rabbi Isaac Luria)

u-lu enter	ush-pi-zin guests	i-la-in exalted	ka-di-shin sacred
u-lu enter	a-va-han ancestors	i-la-in exalted	ka-di-shin sacred
te-vu be seated	ush-pi-zin guests	i-la-in exalted	te-vu be seated
te-vu be seated	ush-pi-zin guests	m'-hem-nu-ta faithful	te-vu be seated

Composed on the Jewish Renaissance Havurah *Ayin Shel Eytz* in Washington, DC, as part of a service for the holiday of Sukkot.

Raising the Sukkah of Sound

General Note

At any point, if you don't know what to do (or even if you do), it's OK to listen quietly and attentively to the sounds around you, sounding again when you feel like doing so.

Beginning

Listen in silence to your surroundings.

When you are ready, sing the word **u-lu** at any steady pitch, at any speed, at any volume.

Pause as long as you'd like and listen to what the others are singing, then sing it again, at a different steady pitch, at any speed and volume that fits with what others are singing. (Don't worry about singing it "wrong"; listen clearly and trust your instincts and it will sound right.)

Continuing

Continue singing the word **u-lu**. Sing it each time at a different pitch than the previous time, at any speed, at any volume.

One at a time, sing each of the five words

ush-pi-zin
i-la-in
ka-di-shin
a-va-han
m'-hem-nu-ta

Raising the Sukkah of Sound

either generally rising or generally falling in pitch. Take as long or as short a time as you'd like with each word, up to a full breath per syllable.

In between the five words, continue to sing the word **u-lu**.

You can also sing the word **te-vu** in the same way that you sing **u-lu**.

Ending

Once you have sung all five words, continue to sing the word **te-vu** in the same way that you sang **u-lu**.

Once everyone is singing the word **te-vu** repeatedly, gradually stop singing, either all at once or independently, until everyone is silent.

If not now...

If not now...

for multiple voices or instruments

“If I am not for myself, who is for me?

But if am only for myself, what am I?

And if not now, when?”

Rabbi Hillel, Sayings of the Fathers, 1:14

General Note

At any point, if you don’t know what to do (or even if you do), it’s OK to listen quietly and attentively to the sounds around you, sounding again when you feel like doing so.

I have had the opportunity to perform this piece with a large number of different groups since I first composed it for the Jewish Renaissance Havurah *Ayin Shel Eytz* (which has since disbanded). The congregation, the ensembles Comma, Gray Code, and SciDolomRah, workshops led by each, and the rock band Elevator Noir are among the groups which have performed it.

The piece sounds quite different with the different groups. In its first performance, which was at an *Ayin Shel Eytz* service, the sound was rather tentative; however, later performances by other groups of “non-musicians” have been more direct. Most performances turn out somewhat arrhythmic and drifting. With Elevator Noir, however, it tended to settle into a Coltrane/Santana-like groove.

Direct influences on the piece include traditional Jewish chant, “Dreaming of the Masters” by the Art Ensemble of Chicago, and John Coltrane’s “A Love Supreme”.

If not now...

Beginning

Play and sing the note **e**, getting the pitch from the instruments.¹

After a while, sing the following melody repeatedly, quietly, at a medium speed. You can wait while the melody goes around a few times before joining in, if you'd like.

e b a ... e c b g ... e g ... e g a a ...

(where the note **e** is the lowest of the pitches.)

1. The melody may be transposed to fit the available voices or instruments more comfortably. I originally set it in **e** to accommodate a drone on guitar, but we have performed it in other keys as well.

If not now...

Continuing

Gradually slow the melody down. As it slows, you can add embellishments to it, such as:

- singing a harmony line
- adding bits of melody between the notes
- changing the rhythm
- changing the phonemes with which you are singing.

While this is happening, you are still free to:

- sing the melody itself together with others
- sing the e drone
- listen quietly and attentively.

You may switch among these strategies at any time, as well as joining what others are singing and creating embellishments to their soundings.

If not now...

Ending¹

Join in the melody or sing the E drone again.

Once everyone is either singing the melody or the E drone or is silent, if you are still singing, gradually rejoin the E drone or fall silent.

Once everyone is either singing the E drone or is silent, gradually fall silent.

1. In practice, performances of this piece have ended differently from the original score: we recapitulate the opening melody twice before returning to the drone.

The piece has also occasionally ended on a drone of A, instead of or in addition to the E.

In Traffic

In Traffic

for multiple voices

Beginning

Everybody starts together
sounding looping vocal phrases
of any length or content.
Gradually shift speeds
until everyone is sounding
at a common tempo.

Continuing

Continue sounding,
shifting phrases whenever you want,
but maintaining the same tempo.
Do not duplicate phrases
that others are performing.

Conceived for SciDolomRah and completed for the QslashC ensemble's 2000 tour. Inspired by the music of King Crimson, Ornette Coleman's Prime Time band, and King Sunny Ade and by the visual interactions of Ladysmith Black Mambazo.

The Stop Signal

In a Stop action,
everyone simultaneously stops sounding
then starts again after a pause.

To request a stop action
stretch out one arm
with the palm out and facing forward.

Others acknowledge the stop request
by also stretching out one arm
with the palm out and facing forward.

When all have acknowledged the signal
simultaneously raise your arms, pointing upward,
and stop sounding.

After a brief pause,
drop your arms and resume sounding as before.

In Traffic

The Shift Signal

In a Shift action,
everyone shifts simultaneously to new phrases.

To request a Shift action,
stretch one arm forward,
elbow bent,
pointing to one side.

Others acknowledge the Shift request
by also stretching out one arm
elbow bent,
pointing to one side.

When all have acknowledged the signal,
simultaneously drop your arms,
pointing downward,
and shift to a new pattern.

Ending

To request an end to the piece,
stretch both arms forward,
palms facing each other.

Others acknowledge the End request
by also stretching both arms forward,
palms facing one another.

When all have acknowledged the signal,
simultaneously pull your arms inward and together
and stop sounding.

Penguin Found (A Meta-Opus)

This score presents a way to combine several of the previous scores (and other pieces like them) into a larger form. Influenced by some of Anthony Braxton's work (in which multiple scores can be used simultaneously) and Merce Cunningham's "Events", it presents the possibility of a larger group shifting among groupings and scores, and perhaps changing among vocals, instruments, and movement in the course of what would work for the audience as a single coherent performance.

The title is an intentionally obscure reference.

Penguin Found (A Meta-Opus)

Penguin Found (A Meta-Opus)

for voices, instruments, or movement

Preparing

Each performance consists of
performances of other brief pieces,
each of which
describes a single ongoing improvisational process
with or without a defined beginning or ending,
and is able to be performed
by voices, instruments, or movement
without referring to scores.

Before the performance,
define and learn a common vocabulary of pieces.
If pieces by outside composers are among them,
make sure that you have the rights to perform them
and, if there is a program,
that the composers are credited appropriately
(whether or not the pieces occur
during the performance).
If possible, confirm with the composers
that the pieces may be performed
with other simultaneous pieces.

Penguin Found (A Meta-Opus)

Place any stationary instruments, props, or objects
in the performance space
where you can see them and reach them
but not where someone might trip over them.

If needed,
define a place where anyone who
will play a portable instrument
can put it down safely.

Penguin Found (A Meta-Opus)

Beginning

Everyone gathers together onstage
in a formation where the performers can clearly
see each other and
hear each other.

Someone begins to perform
the start of one of the pieces
from the performance's vocabulary.

Someone else joins in appropriately,
continuing the piece.

If no one joins in,
the person who had started the piece
should gracefully stop.
Anyone may then again
start performing any of the pieces.

If the start of the piece could be understood
as the start of more than one piece,
the second person might continue it as
a different piece than the first person intended.

Penguin Found (A Meta-Opus)

Any others in the group may then
join and continue the piece,
ending it when appropriate.

Once the piece has begun,
gradually disperse to other parts of the stage,
either individually or in groups.

Penguin Found (A Meta-Opus)

Continuing

Anyone may then,
when either near other players or approaching them,
begin any piece.

The others may then
join and continue the piece
ending it when appropriate.

If other players are performing
other pieces at the same time
(regardless of whether they started
before or after your piece),
perform in a way that is compatible
with what the others are doing.

If no one joins what you are performing,
stop gracefully.

You may choose to carry over
sonic materials and gestures
among the different pieces in a performance.

Ending

At a signal
or at a predetermined time,
gradually come back together,
so that all are in
roughly the same formation
as when you started.

Bring all pieces then in progress
to appropriate conclusions.

Someone may then begin one more piece
that can include all the players.
Each of the others may choose
whether or not to participate in the piece.

When all are again silent,
end the performance.

Epilogue by Jonathan Matis

Reductio ad Absurdum: Omaggio a Joe Zitt 410

Well, um, yeah :-)

Reductio ad Absurdum

Reductio ad Absurdum: Omaggio a Joe Zitt

by Jonathan Matis

for multiple voices or instruments or other performers

Beginning

The piece begins when one performer makes a sound.¹

Continuing

If you are not making a sound

you may

make a sound like a sound you are hearing

or

make a sound that is different from any you are hearing

or

do not make a sound

1. Any action may be substituted for "sounds" in the score.

Reductio ad Absurdum

If you are making a sound

you may

continue making the same sound

or

change to a different sound

or

gradually change some aspect of the current sound

or

stop making a sound

Ending

The piece ends by signal or consensus

or when all performers stop making sounds

Washington, DC, December 2000

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