Extending the Invitation:
Composing Notated Experimental Music for Performance

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A portfolio of compositions and commentary submitted to the University of Huddersfield in partial fulfilment of the requirements for the degree of Doctor of Philosophy

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Contents

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Abstract

This body of writing serves to accompany a portfolio of scored works composed between 2007 and 2011. The first chapter deals with the definition of "experimental music," first asking the question "what is experimental music?", and then by giving a possible working definition of the term based on certain processes informed not only by music, but also by historiography and philosophy. The second chapter lays out the relationship between a piece of music and the score in relation to a mathematical model of understanding. This chapter further explores the different ways in which scores operate in terms of performer interaction, the different types of notation that composers can use in these scores, and how these topics may be related in practice. The third chapter deals specifically with performance of scored experimental works. "Audience" is considered as the performers who receive scores from composers. This relationship is then explored in various ways, based not only on the types of scores and notation presented in the previous chapter, but also on the different types of performers who may encounter the work. Aspects inherent to the performance of experimental music are often discussed. Finally, the question is raised as whether or not such a thing exists as experimental music performance practice, and if this can be catered to by a composer through scores and notation. In these first three chapters, numerous visual examples and quotes from other composers are provided to give context for the work in the portfolio. In contrast, final chapter consists of commentaries on pieces within the accompanying portfolio. Appendices after the first three chapters lie somewhere in tone between these commentaries on individual works and the main chapters, by way of personalising the abstract concepts laid out therein.

Preface

The function of this writing is to give an informed commentary on my compositions, their scores, and performances thereof. To effectively address this, it seems prudent to set out some guidelines – if not exactly definitions – for what it is I mean when using terms such as "experimental music" and "notation," and to provide a context – both historical and in relation to the current work of others – for the work. As I feel I must be objective in my work, I make objective statements about these larger categories. I do this as it is how I am able to come to terms with what I am doing and how this work relates to a larger world.

Because of my interest in both composition and performance, the focus in the following chapters is largely upon how these two elements of music-making relate to one another, and specifically, how composers may relate to performers through the use of various types of notation and score. While I feel that these topics are adequately addressed in the following three chapters, there are many elements, both of my compositions and music in general, which are not. In some cases this is simply due to the limitations inherent in such a project (to address everything which I feel is important to the work is beyond the scope of this commentary, and would possibly take away from those aspects which are *more* important that are addressed), and in others it is because I feel these topics have little to do with my work, or at least my understanding of what is important to this work. The following are some topics *not* addressed in the following chapters:

sound:

John Cage wrote that, "composing's one thing, performing's another, listening's a third." [1] While I examine certain sonorous properties at various points, sound as such is not my focus when composing. Further, I find it hard to give any objective commentary on the sound of a piece of mine for two reasons: when I first listen to one of my own pieces, it is either as a performer – in which case I am busy with my own tasks as a performer and cannot listen to the sound as others are hearing it – or as the composer who is aware of the tasks being carried out by other performers. My awareness of these processes alters my listening, and therefore I do not know how to objectively compare the sonorous outcome of a piece of mine to that of another composer in the way that I can compare the works of other composers when functioning purely as a listener. Therefore, it is the composing and performing of these works that I do focus on.

form and structure:

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1   Cage, John, *Silence : Lectures and Writings by John Cage*, London: Calder and Boyars (1968) , p.15

These topics greatly interest me as a composer, but as I have no underlying statements to make about this across my work, it will only be discussed on a case-by-case basis, when I feel it is important to a piece (an understanding of the notation used in the piece, or how performers may relate to the score) and not self-evident in the score.

how a piece is conceived and how those thoughts are developed:

To try to give an over-arching summary of this which could relate to my entire portfolio would be fruitless due to the many routes by which these conceptions and developments may come about. These matters are however addressed in selected commentaries.

As the above topics are largely ignored in the following chapters, what is it that I have left to write about? What interests me the most – and that which seems to be lacking in the writing of many composers – is what my actual *work* as a composer is. What my "job" is in this musical process. Namely, I think it is the production of scores.

In the following chapters, I first lay out a working definition for "experimental music," going on in the second chapter to detail what it is that a score is, and the ways in which scores and notation may operate. In the third chapter, performance is discussed – the meeting place of a piece of music and the score.

Rather than discussing my own works in these chapters, I draw on examples from the field to illustrate my points as abstract concepts separate from any individual piece of mine. This is in part to avoid the possibility of suggesting that one element discussed may be more important in a single work of mine than it is to other pieces in the portfolio. More importantly, I use examples from other composers, as these are not ideas which are abstracted *from* my work, but which inform it when being made. As such, it seems that this position is made more clear by giving examples from the work of others which demonstrate the points or properties being addressed. For similar reasons, I draw also on the work of philosophers and historians at times when their words are applicable to the topic at hand. In the last section, specific works from my portfolio are discussed. It is my intention that they be "viewed through the lens" of the first three chapters. In the appendices to the first three chapters, a more personal relationship between the abstract concepts of the chapters and my work is demonstrated. This is done both through examples of existing scores of mine and through ruminations on my feelings about the concepts.

The composing of the portfolio and this writing have happened concurrently. The works in my portfolio are diverse, ranging from "occasional" pieces written for specific soloists and ensembles

to malleable works which may be played by groups of people of unknown divergent size and musical background. What ties them together is that they all relate to this field that may be called "experimental music."

I hope for this writing to not only serve as commentary on the portfolio but also exist as an explanation for my work as a composer into the future. That is, I am not writing about "my music" (that which occurs via performance), or even "my composition" (what is behind the heard music – what forms and structures any one piece – limits it, sets it apart from other composition), but rather on my "work" as a composer, why I undertake this work in service to the music, and how it has developed and may further develop.

Chapter One

"The will to make things true, to create a truth." [2]
– Cornelius Cardew

1.1: What is Experimental Music?

I consider myself to be a composer of experimental music. In later chapters, and by way of my portfolio, what my work is as a composer will become apparent, but to explain the context and purpose of this work, a working understanding of "experimental music" as I understand it may need to be established. Different definitions have been given:

> "that area of contemporary music which has rejected the European post-Renaissance tradition." [3]

> "a compositional tradition which arose in the mid-twentieth century, particularly in North America, and whose most famous and influential exponent is - or was - John Cage." [4]

> "music in which the innovative component (not in the sense of newness found in any artistic work, but instead substantial innovation as clearly intended by a composer) of any aspect of a given piece takes priority above the more general technical craftsmanship expected of any art work." [5]

Others (as Michael Nyman does in his book "Experimental Music") go into much greater detail, laying out various possible specific criteria for experimental music. G. Douglas Barrett suggests that,

> "We should understand the term [experimental] as a special kind of appropriation of empiricism and scientism, carrying with it a concern for measurement, instrumentality, and perhaps most importantly, the experimental process." [6]

Along these same lines, M.J. Grant writes,

2 Cornelius Cardew, qtd. in Tilbury, John, *Cornelius Cardew: A Life Unfinished*, Matching Tye, UK: Copula (2008), p.123

3 Smalley, Roger, 'Experimental Music', *The Musical Times*, Vol. 116, No. 1583 (Jan., 1975), pp.23-26, p.23

4 Grant, Morag Josephine, 'Experimental Music Semiotics', *International Review of the Aesthetics and Sociology of Music*, Vol. 34, No. 2 (Dec., 2003), pp. 173-191, p.174

5 Landy, Leigh, *What's the Matter with Today's Experimental Music? : Organized Sound Too Rarely Heard (Contemporary Music Studies ; v. 4)*, Chur, Switzerland: Harwood Academic Publishers (1991) , p.7

6 Barrett, G. Douglas, *Listening to Language: Text Scores, Recording Technology, and Experimental Music* : presented as a lecture at Universität der Künste Berlin on January 18, 2010 as part of the "Sound Studies Lecture" series (author's manuscript, 2010) , unpaginated

"I suggest that the defining difference between experimental music and many other forms of composition, including new music, is that it doesn't represent something, it presents something. It doesn't *tell* us something, it *shows* us something."[7]

Of the above quotes, I am more swayed by the last two, but on a whole I have found that the problems with the given definitions of "experimental music" within the literature are twofold: 1. They work after the fact by examining music which already exists, and 2. they may be subjective in their inclusivity or exclusivity; that is, they may now *or later* include music which is not experimental, or exclude music which is. This is the by-product of making such post-facto definitions.

Ultimately, the fault comes from making the determination based on a perceived or received given historical context of the work being considered and from which defining features are culled or projected upon. What I would prefer to set forth is an a-historical definition of experimental music, one which may equally apply to the past (what has happened), present (what is happening), and future (what may happen). The reality, I feel, is that all art work/music/production sits alongside all other work at any time an evaluation of its situation is carried out. Philosopher Alain Badiou writes that, "'Something is' and 'something is a multiplicity' is the same sentence. So, it's a level of being *qua* being. Being as such is pure multiplicity."[8] If we accept that this is the case, giving a specific historical context for "experimental music" as a whole, and even my compositions alone, would be erroneous. Ben Vautier has observed that,

"Without Cage, Marcel Duchamp, and Dada, Fluxus would not exist … Fluxus exists and creates from the knowledge of this post-Duchamp (the ready-made) and post-Cage (the depersonalization of the artist) situation."[9]

This type of historicisation of an artistic practice makes it clear that there may not be only one line of development toward a certain artwork or body of work. A backward tracing towards one predecessor is not possible. Michele Bernstein has said something similar about the Situationist International: "Everyone is the son of many fathers. There was the father we hated, which was surrealism. And there was the father we loved, which was dada. We were the children of both." [10]

7   Grant, Morag Josephine, 'Experimental Music Semiotics', *International Review of the Aesthetics and Sociology of Music*, Vol. 34, No. 2 (Dec., 2003), pp. 173-191, p.183 – this is a very similar position to that of Alvin Lucier. In 2007, when I asked Lucier what tied the different music that he liked together, he said (paraphrasing), "I like music that *is* something and not music that's *about* something."

8   Badiou, Alain, 'The Subject of Art', *The Symptom: Online Journal for Lacan.com* (issue 6, Spring, 2005) http://www.lacan.com/symptom6_articles/badiou.html (accessed February 11, 2010)

9   Ben Vautier, qtd. in Jenkins, Janet, ed., *In the Spirit of Fluxus*, Minneapolis, Minnesota: Walker Art Center (1993), p.30 - reprinted from "What is Fluxus?" *Flash Art*, no. 84-85 (October - November 1978), p.52

10 Marcus, Greil, *Lipstick Traces : A Secret History of the Twentieth Century*, Cambridge, Massachusetts (USA): Harvard University Press (1989), p.181

While multiple, this type of historical contextualisation is itself still subjectively retrospective.

> "The question of ancestry in culture is spurious. Every new manifestation in culture rewrites the past, changes old maudits into new heroes, old heroes into those who should have never been born. New actors scavenge the past for ancestors, because ancestry is legitimacy and novelty is doubt – but in all times forgotten actors emerge from the past not as ancestors but as familiars."[11]

People and their work do not automatically spring forth from history in a cause-and-effect sort of way. They are rather who they are because of multiple reasons. I feel an affinity to Situationists and Fluxus artists, but I cannot claim that my work is a result of theirs, somehow claiming it and claiming a legacy along with it. "Influence is something already in you," Petr Kotik has said, "and something comes from the outside and confirms it."[12] "[The Situationists] claimed any fathers in whose faces they could recognize their own,"[13] and that is really all that can be done if considering history in that way, but there are other ways to consider history and one's place within it.

> "Is history simply a matter of events that leave behind those things that can be weighed and measured – new institutions, new maps, new rulers, new winners and losers – or is it also the result of moments that seem to leave nothing behind, nothing but the mystery of spectral connections between people long separated by place and time, but somehow speaking the same language?"[14]

This is how we may consider the position of experimental music in a historical context. This "speaking the same language" does not have to be purposeful, but is something as a matter of fact. "At its most radical, art is caught up in an event – something the artist has not created, but to which she is accountable."[15] What may tie past, present, and future examples together as "experimental music" is their relationship to such events, even if the practitioners are "in the dark." I propose that experimental music may best be understood as functioning in this manner.

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11 Ibid., p.21
12 Kotik, Petr, lecture at Ostrava New Music Days, 2009
13 Marcus, Greil, *Lipstick Traces : A Secret History of the Twentieth Century*, Cambridge, Massachusetts (USA): Harvard University Press (1989), p.181
14 Ibid., p.4
15 Michael Pisaro qtd. in Orsher, J., So, M., and Roberts, S., ed., *Every Body Loves Difficult Music*, Los Angeles: Machine Project (2007), p.43

1.2: What Experimental Music Is

Experimental music may be viewed as an application of the experimental: experimental practices, processes, and procedures which either operate upon music and/or which function to produce music as an outcome of their application. However, this does not include all experiments. For instance, one piece of music involved with an experimental process may not necessarily constitute "experimental music" if it is not altering or exploring the ontology of music to some degree, no matter how minor; that is, if it is *doing* what another piece already does.[16] Nor would an experimental process outside of music constitute a case of experimental music if it produces in whole that which can already be understood to be a part of the existing ontology of music in its execution.

The opportunity for these relevant experiments to take place is initiated by *events*: ruptures in the ontology of a situation. These events open up a void, establishing an undefined generic material/subject to be explored, experimented on – *experienced* – procedurally. Alain Badiou gives this new event which changes the ontological situation the name "truth."

> "[T]he event of truth emerges in the void or gap in every situation, the abyss that separates what the situation presents [cases of experimental music] and what it represents [experimental music]. The truth of this void is in itself an indiscernible multiple that only retrospective and retroactive truth-procedures begin to define." [17]

That is, the ontological situation of music presents certain examples by which we may understand "music". This generic understanding of *what music is* is what the situation as a whole represents. "The event of truth introduces into the world a new previously inconceivable universal that is then materialized piecemeal but never totally via truth-procedures." [18] In the case of music, the event is anything which changes this ontology (the generic understanding of music), and the truth procedures are those musical instances which confirm this change in the ontological situation. [19]

"Badiou holds that the production of truth operates in four fields or dimensions: 'science, art,

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16 Alison Knowles has withdrawn compositions when she determined they were effectively "versions" of earlier pieces: Knowles, Alison, Event Scores: http://www.aknowles.com/eventscore.html (accessed September 9th, 2011). This same reasoning can also be carried between the work of different composers. If an existing piece is already an effective demonstration of an experiment, another piece which carries out that experiment would not be "experimental," as the effects of that experiment and an opportunity to carry out such an experiment have already been demonstrated.

17 O'Hara, Daniel T., 'Badiou's Truth and the Office of the Critic: Naming the Militant Multiples of the Void', *boundary 2, Spring 2008; 35: 169 – 175*, p.170

18 Ibid., p.170

19 "Badiou thinks of truth as both the event and the procedures of fidelity to that event which the subject, inaugurated by that event, produces. In this view, the subject is not conceived as a person or even a position. Rather, it is thought of as "any local configuration of a generic procedure from which a truth is supported".": O'Hara, Daniel T., 'Badiou's Truth and the Office of the Critic: Naming the Militant Multiples of the Void', *boundary 2, Spring 2008; 35: 169 – 175*, p.172

politics, and love.' He calls the operation of truth in these four fields 'generic procedures.'" [20] If we accept music as a subset of art, we can consider experimental music as *any* such truth brought into being as a subject through, for instance, the creation of pieces. The potential emergent truth – the subject – may simply be the existence of this music as subject; a self generating field of possibility making up a set which may in turn recast the ontology of the situation that is "music" (or some subset of music). It remains as music, because while it is 'new' it also is *real* and as such while it immediately alters the state of the situation, this immediacy means that the set of elements comprising that situation has been updated.

> "When something happens we are not only saying that it is a multiplicity – a pure multiplicity, and we are not only saying that it is something in a world – something which exists here and now. 'Something happens' is something like a cut in the continuum of the world, something which is new, something also which disappears – which appears, but also which disappears. Because happening is when appearing is the same thing as disappearing."[21]

Badiou explains the situation of the state of being, event/rupture, and subject in terms of set theory. Michael Pisaro has described his compositional interests in such terms as well, suggesting that what is needed in the creation of new works is a Dedekind Cut. [22]

> "In this gap created by the cut, it is possible to define hitherto uncounted numbers (i.e., pieces). The cut I imagine making might be visualized as what lies just below and just above "music," as presently understood. This seems at first like an impossible space in which to operate: below music (nothing but "raw" sound and "silence") and just above music are the primary materials (i.e., chords, scales, durations, etc.). And yet this is the realm in which I continue to find things to do. In this situation one can become preoccupied with questions like whether there is a space between a silence and a simple tone; or the point at which a succession of tones just barely refuses to become a melody. The only way I know to ask these questions is by writing pieces. And the only way to understand the question a piece poses is by performing it and hearing it."[23]

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20 Hallward, Peter, *Badiou: A Subject to Truth*, Minneapolis, MN, USA: University of Minnesota Press (2003) , p.181
21 Badiou, Alain, 'The Subject of Art', *The Symptom: Online Journal for Lacan.com* (issue 6, Spring, 2005)
    http://www.lacan.com/symptom6_articles/badiou.html (accessed February 11, 2010)
22 "A Dedekind cut is the set partition of the rational numbers into two nonempty subsets and such that all members of Subset 1 are less than those of Subset 2 and such that Subset 1 has no greatest member. This, in effect, opens an infinitesimal gap in the space between what lies above and below, without closing of the infinite numerical space between them.": Pisaro, Michael, *Ten Theses on the State of New Music (after Alain Badiou)* , (author's manuscript, 2004), p.10
23 Pisaro, Michael, *Ten Theses on the State of New Music (after Alain Badiou)* , (author's manuscript, 2004), p.11

This is not to suggest that this is the only such cut or rupture which may take place; the possibilities are multiple and potentially infinite. Such a cut or event does not have to come from within music to create a void in the ontology of music which may produce experimental music as a subject. These are not events that happen in music, but for music – the situation that is music.

> "[I]n a concrete situation we have, finally, two terms: first, a world, a world situation – something where all things exist; and after that, an event, sometimes, an event – which is something which happens for this world, not *in* this world, but *for* this world. And I call a subject 'a relation between an event and the world.' Subject is exactly what happens when as the consequence of an event in a world we have a creation, a new process, the event of something."[24]

The set then which constitutes experimental music is made up of those works which follow with fidelity (truth) procedures laid out by events which have opened voids in the generic situation of music. These sets may contain overlapping components, as music is inherently multiple and transitory.[25] These processes may in turn create new ruptures (a new rupture/event is one possible element of a set of consequences of the procedure) within the situations they establish to be explored with new procedures while others continue or are abandoned.

Corey Fogel describes what it is to be a part of this set when he says,

> "I am a member of a community known for, I suppose, thinking outside the box and creating some sort of rift in the continuum of giving and receiving music, or continuing within the continuum of rifting."[26]

It is this dual function of creating rifts in the continuum and continuous rifting which keeps experimental music from being defined as genre or being codified.

If music, in its structure, is a rhizome,[27] due to this continuous rifting, experimental music is always operating on new material (anything which makes up the ontology of the musical situation at the present time), as it is constantly generating new ruptures, subjects, and processes. By "material" I do not mean only what composers may often discuss as material (elements of sonority,

24 Badiou, Alain, 'The Subject of Art', *The Symptom: Online Journal for Lacan.com* (issue 6, Spring, 2005) http://www.lacan.com/symptom6_articles/badiou.html (accessed February 11, 2010)
25 "Music is a vagrant; it has no fixed abode." - Cornelius Cardew, qtd. in Tilbury, John, *Cornelius Cardew: A Life Unfinished*, Matching Tye, UK: Copula (2008), p.142
26 Orsher, J., So, M., and Roberts, S., ed., *Every Body Loves Difficult Music*, Los Angeles: Machine Project (2007), p.14
27 Deleuze, G. and Guattari, F., *A Thousand Plateaus: Capitalism & Schizophrenia*, London: Continuum (1987), p.12 This understanding of music is particularly applicable to experimental music, as it does away with historical and hierarchical understandings of musical development.

duration, etc.) but anything which has an influence on an understanding of "music," be it sonorous, political, physical, architectural, conceptual, etc.

A rhizome is "a map and not a tracing […] What distinguishes a map from the tracing is that it is entirely oriented toward an experimentation in contact with the real." [28] This "contact with the real" is essential. For experimental music to operate, it must be producing music. It must function to come into being as a subject. These experiments do not point to conclusions, routes to which must then be traced, but open vistas in need of mapping: voids. Musical production – in my case, composition – constitutes this mapping. While the process is generative, it is not additive. One experimental work does not build on another in a sense of development, branching off from a main trunk and going down a certain path, but is equivalent (by way of its function) to any other member of the set constituting the subject of a truth procedure which is made up of multiple works, each itself a multiplicity.

These procedures are not only non-additive, but are in fact *subtractive*. It is the subtraction of current ontologies from the larger situation which creates the initial rift and allows for its exploration. A generic formula for the practice of experimental music may be:

> music (that which is currently known to comprise the ontological situation)
> - every known instance of music
> = the generic material of the void to be procedurally explored

Curiously, this subtraction comes through by way of production. It comes from an event; an occurrence (sometimes a piece of music) which cannot be understood within the rules of the current ontological situation of music but which applies to the situation of music. By projecting this new possibility, it does not add to the situation, but opens a void; sets forth the possibility of a new truth to be procedurally explored.

This is only a generic formula. Real instances may not have such a broad scope. That is, it may only be a small subset (even just a single piece of music, a score, or a single performance) that is the situation from which subtraction takes place (though some larger ontology is always inherent in this, as a single work will be a member of a set - *some set* - though the terms which define that set may be immaterial to the event or process of subtraction). Composer Jürg Frey has described this very process:

> "When I see that blank sheet in front of me, as empty as it may look, I have, of course, projected a great many things onto it already: music I've written or pieces that already exist. So I don't regard the sheet as blank. On the contrary: part of my work is to clear the slate,

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28 Ibid., p.12

to eliminate what's there before I write even the first note. Then I can proceed to get what may be my own music on the page. […] Today, conventions are the main thing I want to get rid of, be it in regard to performing traditions or compositional techniques – all the sediment that accumulates around music and makes it operate the way it does. If you try to work with sounds without these expectations and conventions, you discover that there are other possibilities."[29]

"Sounds" could be replaced in Frey's statement with any other element of the musical situation. G. Douglas Barrett notes that the text version of John Cage's *4'33"* "takes a pre-existing unit from the continuum of music notation and simply highlights it, transforming it into an unknown by stripping away all else, exposing the term's own inherent alterity."[30] The exposition of such alterity – an inherent "otherness" – of something is the function of experimental music and the establishment of a subject.

As an example of this, we can consider Christian Wolff's *Stones*:

fig. 1:

<div style="border:1px solid">

Stones

Make sounds with stones, draw sounds out of stones, using a number of sizes and kinds (and colors); for the most part discretely; sometimes in rapid sequences. For the most part striking stones with stones, but also stones on other surfaces (inside the open head of a drum, for instance) or other than struck (bowed, for instance, or amplified). Do not break anything.

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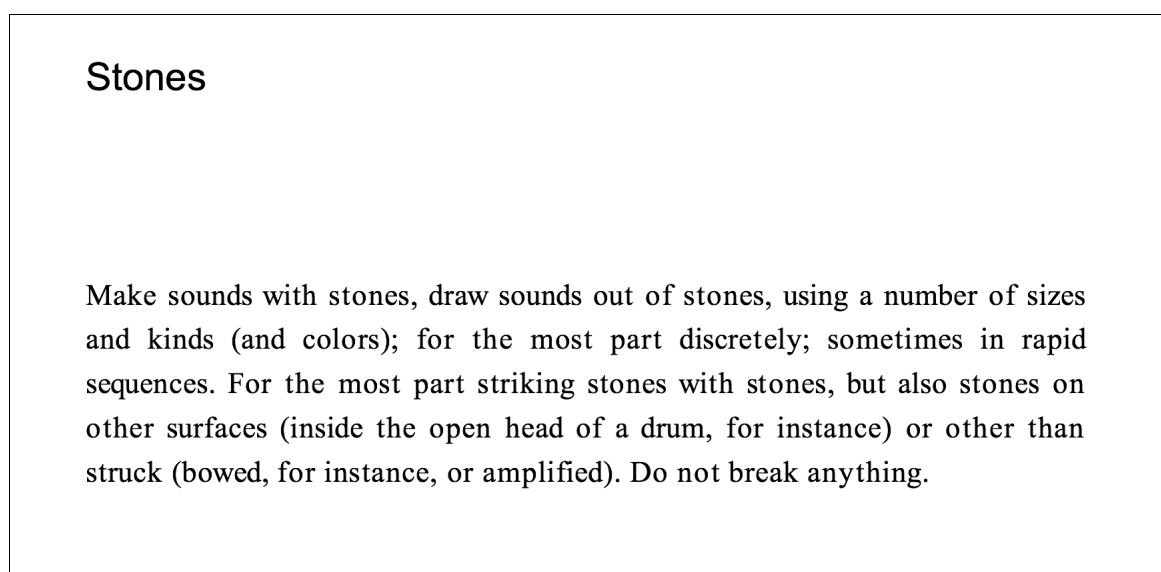
We may eliminate every specific requirement laid out in the score and still be left with something which would not have existed in our understanding of music had *Stones* never existed; something about how music may be made, perhaps. This is the sort of encounter Michael Pisaro had with James Tenney's *Swell Piece* which led to the composition of Pisaro's *harmony series,* a set of

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29 Jürg Frey qtd. in liner notes to Frey, Jürg, *Klaviermusik 1978 – 2001*, EWR 0201, Berlin: Edition Wandelweiser Records (2002)

30 Barrett, G. Douglas, *Listening to Language: Text Scores, Recording Technology, and Experimental Music* : presented as a lecture at Universität der Künste Berlin on January 18, 2010 as part of the "Sound Studies Lecture" series (author's manuscript, 2010), unpaginated

pieces which attempt "to create conditions for a kind of functioning harmony without saying anything about the specific harmonies that should result" – the feature of Tenney's piece which inspired him.[31] Tenney also carried out subtractive procedures in regard to *Swell Piece* in the creation of the rest of the set of three pieces with the title.

fig. 2:

Swell Piece

for Alison Knowles

To be performed by any number of instruments beyond three, and lasting any length of time previously agreed upon.
Each performer plays one long tone after another (actual durations and pitches free and independent).
Each tone begins as softly as possible, builds up to maximum intensity, then fades away again into (individual) silence.
Within each tone, as little change of pitch or timbre as possible, in spite of the intensity changes.

James Tenney
12/67

SWELL PIECE NO. 2 (for any five or more different sustaining instruments):

for Pauline Oliveros

Each performer plays A-440, beginning as softly as possible, building up to maximum intensity, then fading away again into (individual) silence. This process is repeated by each performer in a way that is rhythmically independent of any other performer, until a previously agreed-upon length of time has elapsed. Within each tone, as little change of pitch or timbre as possible.

SWELL PIECE NO. 3 (for any eight or more different sustaining instruments):

with respect to LaMonte Young and his COMPOSITION 1960, No. 7

Divide the instruments into two approximately equal-numbered groups, primarily on the basis of a treble-bass distinction. The higher-pitched group plays the F-sharp a tritone above middle C, the lower-pitched group the B a fifth below. Play as in Swell Piece No. 2, but "for a long time".

James Tenney
March, 1971

"Is speaking the language of the tribe (as Mallarmé would have it) easier than subtracting your language from the language of the tribe?"[32] This is how the mapping of the void is carried out. It is impossible for the map maker to have a goal for what the map contains, as it is the mapping of something here-to-fore unknown; a map of what lies off the edge of the world, or in its hollow interior. "The goal is to have no goal."[33] This goal-lessness breeds real experimentation. While multiple individuals and musics may be carrying out this mapping of the void through truth procedures, it will not always be immediately evident that this is taking place. The mapping of the

31 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009) , p.70
32 Michael Pisaro qtd. in Orsher, J., So, M., and Roberts, S., ed., *Every Body Loves Difficult Music*, Los Angeles: Machine Project (2007), p.42
33 "Lao Tze as paraphrased by John Cage" in Landy, Leigh, *What's the Matter with Today's Experimental Music? : Organized Sound Too Rarely Heard (Contemporary Music Studies ; v. 4)* , Chur, Switzerland: Harwood Academic Publishers (1991), p.225

territory may be carried out in different areas of the same void or approached from different edges of the previously known territory. Likewise, experimental members of one set may be subsumed by another or exist in two sets simultaneously.

> "To the extent that an artist takes on the task of exploring new worlds, her art risks difficulty: it may resist categorization in the old laws, may not be easily visible or audible to most who encounter it, and may not be entirely clear to the person making it."[34]

Though goal-less, the process is not aimless. Trajectories are established and followed. While the eventual outcome of the trajectory is unclear, it is not pointless or without internal merit; one process could not be swapped out for another and one individual in the set could not be replaced with something else – an individual not subject to that truth procedure – without fundamentally altering the set. As Earle Brown wrote,

> "The recognition of these conditions (relations) and their contextual use is not based on function but on their un-conformed existence. (Not used for rhetorical effect.) A unique independent existence for the work [...] the work to be its own definition. (Revelatory rather than declamatory.)"[35]

To be a unique work, one must have its own definition – its own unique state of being – as this allows it to become a member of a larger set of works which make up the subject of a truth procedure. (As a non-musical example, consider the set of prime numbers. Each is unique, but together they define what the subject is; one may recognise a prime number by its properties without being aware of other primes). Function may then be derived from analysing those works which make up a set and establish whatever that subject is.

This explored void is not a nothingness, but an un-conformed existence which is self-defining, apart from a given historical definition which could be traced. It does not declaim a truth, but revels in the procedure of the fidelity to whatever that truth may be. Fluxus (though it could apply to any experimental procedure in art), George Maciunas wrote, "strives for [...] impersonal qualities of a simple, natural event."[36] He does not mention any particular natural event – to do so would be to ask for reproduction, what already belongs to ontology, a tracing of routes on existing maps. Rather what is sought is equal parts natural (the outcome of a process) and impersonal

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34 Michael Pisaro qtd. in Orsher, J., So, M., and Roberts, S., ed., *Every Body Loves Difficult Music*, Los Angeles: Machine Project (2007), p.42

35 qtd. in Landy, Leigh, *What's the Matter with Today's Experimental Music? : Organized Sound Too Rarely Heard (Contemporary Music Studies ; v. 4)*, Chur, Switzerland: Harwood Academic Publishers (1991), p.240-241

36 qtd. in Gray, John, *Action art: a bibliography of artists' performance from futurism to fluxus and beyond / compiled by John Gray,* Westport, Connecticut (USA): Greenwood Press (1993), p.v

(one is only part of a set of subjects comprising a truth procedure). Mark So may say as much with different language:

> "[W]e find that in going nowhere, we have already been going someplace, and that this someplace that is also nowhere goes on forever, leading us along its course infinitely, or for as long as we care to abide going nowhere. This someplace/nowhere is not indefinite or generic; it is not just anywhere. To the will, it can only appear as a blank, a non-place designated by a place holder. But to us, once there, this place – its expressive surface, the trajectory of its native idea – has the fulness and distinction of a being in itself, bearing the character of the proper name – it is the singular, self-defining Named." [37]

Experimental music is this "Named" and also the going nowhere towards the named – infinitely.

1.3: Appendix to Chapter One

Having an understanding of what "experimental music" means is important to me as a composer. This is so that I can have – at least partially – an objective way to examine the quality of a composition. I am or have at times been involved in other kinds of music: pop music, improvisation, shona music, jazz, techno/electro. Evaluating any one of these practices on the terms of another – while possibly a curious exercise – would not provide useful criticism. It is not simply the case that I consider myself to be composing "experimental music" as a matter-of-fact, but require critical analysis of this while composing so as to guide the work. When I'm formulating an idea for a piece, I ask if it is experimental as I understand the definition.

The most important consideration while doing this is to ask myself if the piece "does" what another piece already "does." If I think it does, I abandon the idea. If not, I pursue it. I will also pursue an idea if the answer is unclear to me – the answer may come later in the process, perhaps not until performance. Defining what a piece "does" is not a simple task, as it can be approached from many angles (in part, this is my reasoning for breaking down what I consider to be the job of a composer in the following chapters). For instance, one piece may seem to be doing what another piece does in terms of sonic results or individual performer interaction with a score, but be fundamentally different in terms of group interaction during performance. That said, I do not feel that a piece can really be broken down into constituent elements in this way, and must also be evaluated on a whole in terms of what I think it does to my understanding of the ontology of music, which encompasses all of the aspects of music making.

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37 qtd. in Orsher, J., So, M., and Roberts, S., ed., *Every Body Loves Difficult Music*, Los Angeles: Machine Project (2007), p.30

For this reason, I evaluate the present situation of experimental music before I consider composing. I ask myself where the spaces are to be found in this – where a cut could be made and where voids and truth procedures already exist. A new piece may be subject to a truth procedure followed by others, but I do not consider these pieces to be "doing" the same thing, as fidelity to a truth procedure will only confirm an aspect of the occurrence of an event which influences the larger ontological situation, while the piece will also relate to the larger ontology in different ways. I often find places to make these cuts between my own compositional practice and that of others. It is not that other music simply presents possibilities which I could pursue. Doing so, I think, would only be a furthering of craft; copying. Trying to emulate existing work would do something *to* my musical practice, whereas exploring the spaces which exist between my music and that of others does something *for* my musical practice. The former would simply be a confirmation of the existing ontology, whereas the latter is an encounter; a possible event.

A good example of how I have carried out this process in a specific case may be illustrated by my piece *Beauty and Industry*. There were two main concerns/interests which dovetailed in this work. The first came after composing pieces for any multiple number of similar instruments: keyboard instruments, fretted string instruments, and wind instruments.

fig. 3:

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for any number of keyboard instruments

an agreed upon duration is divided, by each player, into as many equal units of time as there are keys on his/her instrument.

one note is played for each unit of time, each note of the keyboard being played once.

timbre should not be altered during performance.

notes should be ordered in some systematic way by at least half of the players.*

*e.g. a chromatic scale up or down; all black keys, then all white; both whole-tone scales, one after the other; circle of fifths; etc.

Joseph Kudirka
2004

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fig. 4:

for any number of fretted string instruments

an agreed upon duration is divided, by each player, into as many equal units of time as there are frets on his/her instrument.

starting at either the highest fret and moving to the lowest, or the lowest moving to the highest, one note is played for each unit of time, each fret being used once (though players may move across strings).

timbre should not be altered during performance.

if problems of intonation arise within an ensemble, simply align the tuners on each instrument so they are parallel, then you will never have intonation problems again.

if played as a solo on a plucked instrument, the timings may be ignored. the player should then move from one note to the next after the first has fully decayed.

Joseph Kudirka
2005

fig. 5:

For Any Number of Wind Instruments

Each player chooses as many pitches as there are players (this may be done in advance, or while playing).

These pitches are played in succession, each repeated at least as many times as there are players/pitches before moving on to the next.

Each note should be held for as long as possible, followed by a rest of approximately that same duration.

Dynamics should be balanced within the ensemble.

Players begin and end more-or-less together.

Joseph Kudirka
2005

In each of these cases, the piece was constrained by particular characteristics of the instrument family (an amount of time divided by a number of keys or frets, and the length of a tone being determined by the length of a breath or decay of a plucked string). It did occur to me that I could have followed up this procedure by composing pieces for any number of mallet percussion or bowed string instruments, for instance, but I felt that would in essence be a transference of something which already existed to something else which already existed; a tracing, rather than a mapping – there would be no cut/break/void. The question I asked myself then was what would remain from the ontology made present by these works if I were to remove the requirement for a common sort of instrument to define a piece. That is, what did these pieces present as a generic material outside of their individual requirements?

In short, the answer was *Beauty and Industry*. I felt that something inherent to the performance situation should dictate the duration, which is why I chose to have it be contingent on the number of players. Rather than forcing all instrumental types to do one thing, I broke them down into generic groups based on their inherent properties of duration and pitch manipulation. That being the case, there are still types of instruments which could not take part in a performance of *Beauty and Industry*: those which are inherently of infinite sustain (hurdy gurdy, pipe organ, etc.). For this reason, the piece is for two or more "players," rather than for "instruments" or "instrumentalists." Anyone could take part in a performance, but not necessarily with any instrument (though I would like for this to possibly inspire players to find ways of playing an instrument which does not seem to conform to the requirements of the piece in a way which would).

fig. 6:

Beauty and Industry
for two or (many) more players

A performance of the piece is as many minutes long as there are players.

Each player should start playing at some time within the first minute and stop at some time within the last minute of the piece.

Each sound that a player makes should be conditioned by physical properties of the player/instrument; for instance, the entire length of a bow stroke, the amount of time it takes for a percussive object or plucked string to fully decay, the length of a wind player or singer's breath, etc. Given this constraint, each sound should be as long as possible. After each instance of playing, a player should rest for the length of their previous tone.

Each player's first tone is of their own choosing. After this, each subsequent tone should vary slightly in pitch (1/4 tone or less) from the last. Performers playing instruments of fixed pitch should play the same tone throughout the piece, unless playing a chordal instrument. If able to play chords, a player may (but need not) change one note from the chord in each period of playing.

Joseph Kudirka
2007

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My second interest in composing the work was what could possibly be called "indeterminate microtonal harmony." I'm fascinated by the fact that we don't have a terminology for this as of yet. What I'm referencing here is not really microtonal, as it has no relationship to tonality, but neither does it have a relationship with any other codified arrangement of pitch or frequency. A composer whose music I think is an especially good example of this, and who I was thinking of while composing *Beauty and Industry*, is Phill Niblock.

I could, if I wanted, compose a piece like a Phill Niblock piece, but I have no interest in that. Rather, I asked myself what would be a piece that I might not compose if it were not for Phill Niblock's music – what is it that his music has done *for* music in ways that I can pursue? The end results of pieces by Niblock and myself are very different, but by exploring this one aspect of the musical ontology, a truth procedure related to this kind of use of pitch is confirmed by both as something existing outside of any one work.

It is by way of individual works that these procedures overlap. One piece may be subject to multiple truth procedures, but its existence in one of those sets along with others of the set are what confirms the identity of that truth procedure. After composing *Beauty and Industry*, it occurred to me that the generated harmonies were in some ways similar to those in Michael Pisaro's *So little to do* [Harmony Series #6],[38] which contains this instruction:

> "Each performer plays one tone (any tuning).
> With each new section the tone may be retuned slightly, i.e., altered no more than 20 cents from the previous tone."

While this method of generating harmonies is similar in both pieces, the performance situation is fundamentally different, as it is based on controlled sections, and the sonic results also differ, as Pisaro's score calls for "six or more performers playing sustained tones."
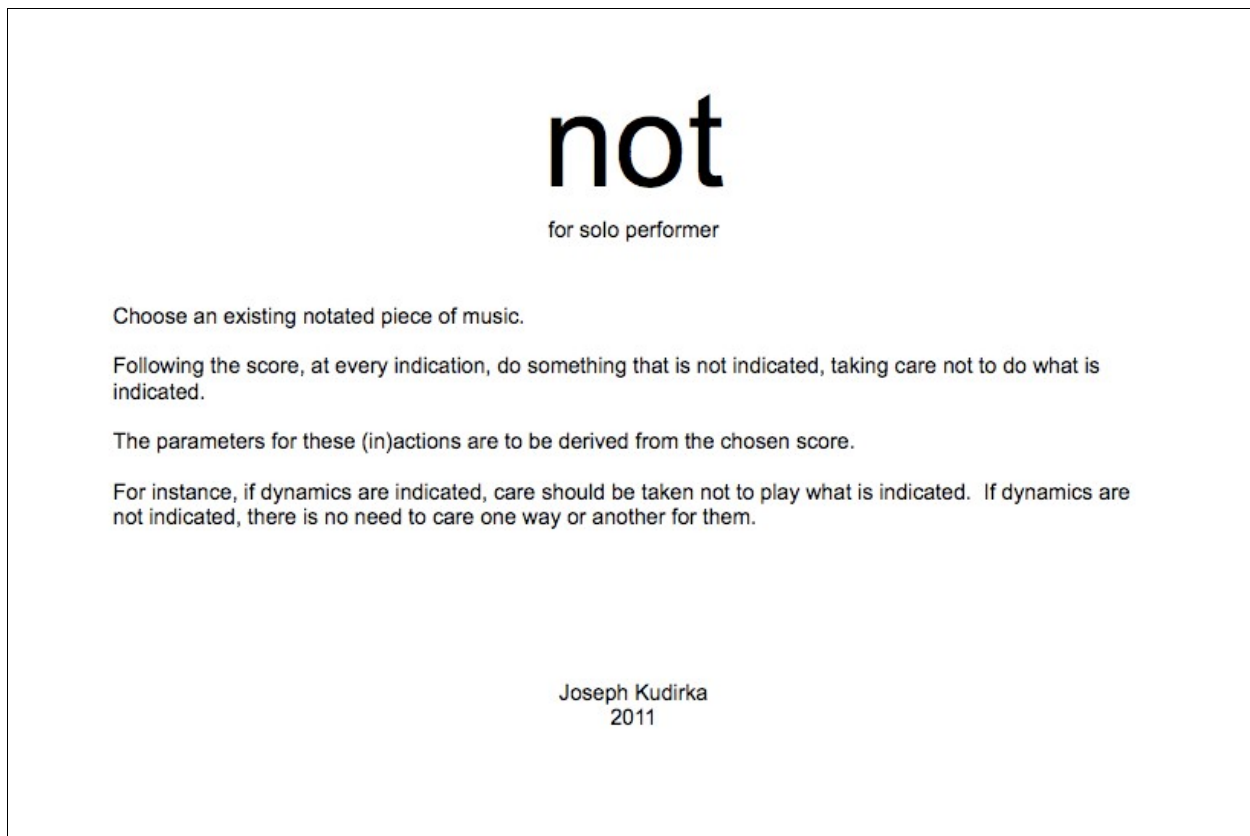
Curiously, *Beauty and Industry* is not fundamentally an exploration of microtonal harmony, as it can be performed on instruments of fixed pitch. However, as the identity of the piece is contingent on the understanding of the possibility of these harmonies, it is as much a product of the principle as any other piece which may be in a set which confirms the existence of this property. I think that it is important to note this, as it demonstrates that the piece is not simply the representation of something, but a process which must be carried out by performers. Performance – that is, not just the making audible, but all of the actions made by any individual performer – is at the heart of the piece.

I think the inherent "is" being the same as "is a multiplicity" mentioned by Badiou is clearly presented by the many ways in which *Beauty and Industry* relates to a larger musical world. There

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38 The piece is dated January/February, 2005, as it was developed over a period centred on performance workshops in which I took part.

are however examples in my work which are more direct in their dealing with the processes behind experimental music as I have defined it. One of these is *not.*

fig. 7:

A performance of *not* will always explore the space between a single scored work and a player's understanding of that work in relationship to their own place within the existing musical situation; it is a performer's understanding of "music" as a set of properties which will dictate what they play (and don't play). This is what I mean by a piece being inherently experimental, outside of a given time or understanding of what other music it may or may not be related to. *not* will always present (not represent) the relationship that exists between the performer, the score they choose to work from, the place of both that chosen score and the performer's identity within the given ontology, and the spaces which exist between these elements. Despite changes in performance practice, the fundamental identity of the piece as an encounter within these spaces remains.

An earlier piece of mine, but one which may more clearly demonstrate the same properties inherent in *not* is *Seven Movements for String Quartet*. This piece was based on examining John Dowland's *Lachrimae* variations. Specifically, I was interested in Dowland's voice writing for viols in the piece. To explore this, it occurred to me to examine the harmonic spaces in between

Dowland's five voices. I did this systematically by determining the minimum harmonic distance between any two adjacent voices; the highest point of the lower voice and the lowest point of the higher voice determine what this harmonic space is. These spaces are reset when one voice drops out or the voices cross. These are voids, but voids only made possible by this particular piece.

Because the part writing is what interested me in Dowland's piece, that is the only aspect that is explored with a subtractive procedure, whereas every aspect of a score is subtractively explored in *not*. For instance, the rhythmic structure/pacing of *Seven Movements for String Quartet* is identical to that of *Lachrimae*, as is the use of double bar lines within each of the seven sections. Despite having some of these elements in common, the pieces are largely different on principle. *not* is conditioned by encounters between performers and *scores*, whereas the string quartet was brought about by my consideration of Dowland's *piece* as an event. For this reason, I am not interested in carrying out the procedure I did on the parts in Dowland's piece with another piece, nor would I consider that to be a truly experimental process; that would be a sort of tracing, rather than a mapping.

The above examples all relate to an insular, purely musical ontology and ways in which I have explored this. However, I have also composed pieces from events outside of music which then impact this ontology. *BARACK - - KILLED (CAYLEE)!!* is one such case. I found here that the text from which the piece is abstracted created a space heretofore unconsidered between written text and musical notation. The event wasn't a consideration of text as something outside of notation which could have an effect on music, but *this text* in particular. By examining this newly discovered space, the piece came into being. With *bits of metal in a jar*, it is rather the space between specific physical objects – not idealised or conceptualised objects – that brought about the piece. It is clear to me, from such examples, that my consideration of "experimental music" on these terms does not have an effect for me only within music, but in how I live and experience my life outside of music. This is why the practice is so important to me. It's a way of actively participating in the world, and a way of understanding the world. Working with performers then creates intimate personal relationships through a mutual association with this process. This is not a dialogue – that would be a metaphor – but a wholly unique practice, which, as it effects the ontology of what we are experiencing, effects all parties involved with this world in some manner.

Chapter Two

2: Piece, Score, and Notation in Terms of Performer Interaction

In the previous chapter, I laid out a definition of what I will be calling "experimental music" within this body of writing. This experimental music may be a result of improvisation or many types of composition and methods of interaction between composers and performers. My work in the accompanying portfolio exists as notated scores which are to be interpreted and performed by other musicians.[39] That being the case, I will now lay out working definitions for terms such as "piece," "score," and "notation." I agree with Earle Brown's statement that notation is "the only visible evidence of the composer's initial and developed conception."[40] However, for this to be properly understood, it is important to establish what is meant by "notation," how this relates to the score, and what both of these have to do with a composed piece of music.

2.1: Number and Numeral

To consider these things systematically, I have found it necessary to ask some basic questions regarding definitions: what is a piece of music? Is it the score? Is it the performance prompted by the score? I posit that it is neither of these. A piece of music is an abstract – but real – subject. Just as pieces of music or general artistic practises may be subject to a truth procedure, the score and its performance are subject to the piece as this abstract but real presence.

This may be best understood by a mathematical analogy: the score is to the piece as numeral is to number. A numeral – *12*, for example – is a representation of a number – twelve, in this case. However, it is not a representation of an ideal (as a print of a painting is to the original painting), but a functional representation which may exist multiply; that is, once understood, it may take on an operative function. It may be used in mathematics to come to an understanding of what it is. A wide array of things may be described by use of this numeral. These instances are to the number as performance is to the piece.

For example:

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39 In the instances in the portfolio of my works which I have performed or realised, I feel that this division is still in place, as the functional relationship between composer and performer remains even though I am the sole participant in both.

40 Brown, Earle, 'The Notation and Performance of New Music', *The Musical Quarterly*, Vol. 72, No. 2 (1986), pp. 180-201: Oxford University Press, p.181

4 = ++++ = four

    or

    score = performance = piece

Much as *4* is not itself four plus signs, four oranges, four baboons, etc., a score is not a piece.
However, it is a way to approach a piece – a way to bring a piece into being, of understanding how
to make that piece, just as demanding "4 _" will get us four of whatever that "_" is – it has a
functional use outside of any specific instance of it.

Just as we need instances of numbers (the four oranges, or baboons, or tennis rackets, etc.) to
initially understand what the numeral may mean and what the number *is* (think here of early
childhood learning), we need performance to understand the piece.

It is important to note that this is not a platonic relationship that exists between the piece and its
performance. There is no ideal instance of the piece as there is no ideal instance of a number.
Much as any instance of "four" *is that number in its method of operation,* any performance of a
piece is the piece insofar as it may provide an understanding of the piece. The performance is an
instance of that piece, but it is not *the* piece any more so than is another performance (four
oranges are no more or less "four" than are four hours).

As an illustration, I present two pieces which demonstrate this to certain extremes; James
Saunders' #*[unassigned]* and Manfred Werder's *stück 1998*.

Saunders refers to #*[unassigned]* as a "meta-piece,"[41] itself made up of individual pieces, each
composed to be performed only once. While many of these pieces involve similar types of musical
"material," others are divergent in terms of performance requirements, methods of notation,
instrumentation, etc. What each has in common is this requirement that it be performed only once,
on the date assigned to the piece (a piece's title is "#" followed by the date on which it is to be
performed, laid out numerically in six digits). While it would be possible for a composer to carry out
such a task in a platonic manner, Saunders does not. This is due to the indeterminate nature of
some of the works, especially in regards to sound production. Within a performer's accurate
execution of one of these scores, the resultant sound(s) may well have been different due to their
indeterminate nature in what could have been another accurate performance. Nonetheless, the
piece is the same; a requirement of the piece was to perform the tasks called for in the score – this
piece will always exist in the abstract as the infinite number of possible performances that could
have happened, even though only one ever will have happened. This is not to say that *whatever*

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41 In conversation with the composer, November 2009

happens during performance will be an instance of the piece; if the score and notation are not accurately understood and carried out by the performers, the piece was not performed, though its existence as an abstract entity of various possibilities remains intact.

fig. 8: an example of a piano fragment from Saunders' #unassigned demonstrating some indeterminate elements (the attack of an ebow upon release of dampers, and a very soft high tremolo)
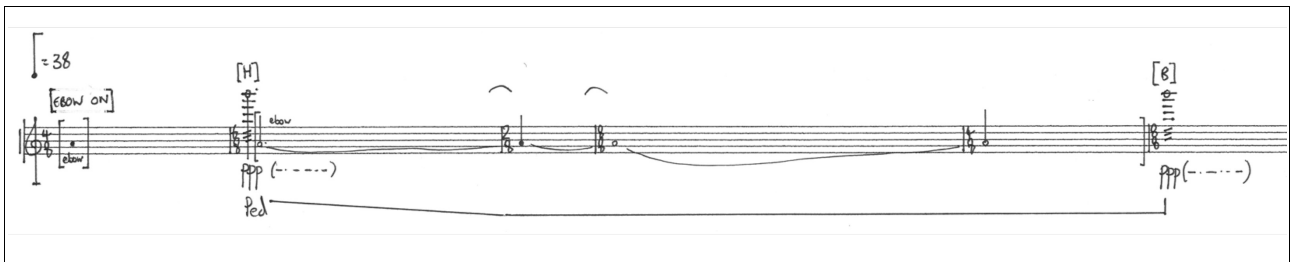
Manfred Werder's *stück 1998*, like any of Saunders' *#[unassigned]* pieces, will only be performed once. In Werder's case, the piece was already being performed before the score's 4,000 pages were completed (the same could be said in principle for Saunders if one considers *#[unassigned]* as a single "meta-piece"). Despite this, the score is seemingly completely uniform (any page seems to be statistically identical to any other), with the fundamentals of the piece never changing throughout its composition. From the score:

[...] read from left to right and from top to bottom.

[...]

one action consists of 6 seconds of sound,followed by 6 seconds of silence.

groups read and play together.

actions which can't be played by instruments are to read in time nevertheless
(duration of each line is one minute).

to itself,clear and objective. simple.

stück 1998 consists of 160'000 actions (533 hours 20 minutes).
the score is performed - in sections - in one succession.

fig. 9: excerpt from page 590 of Werder's **stück 1998**

c2	#G1	#f3	#a1	a1
#C	d2	#a3	f2	A
D	E1	#c	#d	C
#A	#a	#a	h	#d
#f	F1	F1	#c4	#G1

Of special importance in this case is that the notations for some given actions will never be performed as sounding events, never having the possibility of sounding if a player (or a group of players) performs an action with instruments incapable of producing the pitch called for in that action. The composer distributes the pages in order from 1 – 4,000 for each new performance, and thus has no control over what pitches will be available within the events for the players who will perform any given section of the piece. Even with this very simple – and in ways limited – material, what the piece could sound like, in terms of pitch range and proportion of sound to silence, is of nearly infinite possibility. Regardless of how the performance of the piece is ultimately resolved, *stück 1998* would have been no different *as a piece* had the exact sounding result been different.

In these cases, it is the score which makes the performance possible. However, the score as

presented to the performer may not always be the only way to get to an accurate realisation of a piece. Just as multiple mathematical equations may arrive at the same number (for instance, both (12 - 4) and (4 + 4) both give a result of 8), there may be multiple ways of scoring or notating the same piece. What is important is that a score be *accurate*; that is, by carrying out what the score calls for in performance, the piece may come into being (to extend the mathematical analogy, if one desired to arrive at the number five, a score calling for *4 + 2* would not be accurate).

Luc Ferrari provides an excellent example of this in an anecdote about his piece *Tautologos 3*:

> The first *Tautologos 3* was a written score, a text-score (like many others at that time), where I explained the rules of the tautology; it was a score which gave individual players the freedom to choose their action. We did this version a lot, in instrumental and theatrical contexts. Well, what with mixing up other people's instrumental and theatrical actions, after a while I wanted to do my version of the piece! (Laughs) So I wrote an instrumental score which respected the demands of the text-score. From time to time I taught workshops where I did *Tautologos 3* very often, with the students having to follow the score quite closely – so when I showed them my own version they said: "You're cheating! You're not following the rules!" And I said: "I am free, you know..."[42]

It is not simply the case that Ferrari was "free," but that he, as the composer, had an understanding of the piece that the students did not. He recognised that the piece was not contingent on any one score, but that the text-score was simply one way for performers to bring about the piece, and his other score another. The results from the two would not be identical – some things resultant from one not even being possible with the other – though both could result in performances which are true to the abstract identity of the piece.

A better way to understand this may be to remove ourselves from the common base-ten system:

Despite what numerical system is used, number remains the same. While twelve is a number described by *12* in base-ten, it would described by *13* in a base-nine system. Regardless of the system used, the number remains the same, so long as one understands the system being employed to represent that number in the given graphic/numeric form.

The above number/numeral analogy may well be made for most notated music. What makes it unique when applied to *experimental* music is that the numbers involved are *irrational numbers.*

42 Ferrari, Luc, 'Interview by Dan Warburton', *Paris Transatlantic Magazine* (July, 1998): http://www.paristransatlantic.com/magazine/interviews/ferrari.html   (accessed January 15, 2010)

These numbers have a functional existence as much as any other number may (they may be used in equations, etc.), but are unique insofar as they are infinitely explorable. They may also be approached in different ways – any circle may be the source for deriving *pi,* and no one circle will be any better at giving us *pi* than another. These numbers exist *in-between* and *always* in-between the rational; inexhaustible exploration is possible. While this is the case, any one instance of the number/piece is still functionally equal to any other.

That is how a piece of experimental music and its score may be understood: the score functions by instructing us to produce something with a function, but the full extent of which will not be known, not only in that performance but in any instance of performance. While the full extent of the piece will not be known (*this,* apart from pure enjoyment, may inspire repeat performances), the piece may still be understood and learned from based on one performance alone.

To briefly carry on with the above analogy, we must consider what it is that the numeral for the irrational number is asking of us. It is not the same as that of the rational number and its numeral. While one may put forth *4* to arrive at four_(something), the same can not be said of *pi*. That is, it is not the same simple abstraction/real instance duality. The irrational number requires us to *do something* to get at it; an equation; a process (resultant from relationships with a larger world). It is this *doing* which the score requires – performance; understanding; not an end product.

What's more, the composer may not know – likely does not know – what number s/he is asking for. It is as if the score said, "make *4*; show me *4*" without us already knowing what *4* will get us; we could not know before the score was created. Instead of saying "show me 'four,'" we say "show me _(what comes from performance prompted by the score)" and we find out what has been asked for. That is, the score does not tell us what the number is, but it facilitates performance(s), through which we may discover this.

While at times different equations may lead to instances of the same number, at other times only one equation is possible or at least appropriate to the given situation (just as one must have an understanding of the mathematical system in place to have an understanding of a given numeral). This is the score, and the different methods of laying out the procedure for the *doing* exist as different types of score and notation.

2.2: The Score

For my purpose in outlining definitions, "score" is understood to be the physical object with which performers initially interact to produce a performance of a piece. [43] It is the physical object,

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43 I make no distinction, that is, between "parts" and "score", but simply use "score" to mean any of these things.

whereas "notation" is that which is contained within the physical confines of the score (most often as printing of some type); the score is the page, while the notation is that which appears on the page.[44]

As a generalisation, there are three fundamental types of score as viewed through means of performer interaction:

1. those which are read from in performance

2. those which call for some new/secondary material production to be utilised or read from before or during performance

3. those which must be learned/internalised; where nothing (previously existing or not) is read from in performance.

2.2.1:

The most obvious examples of this first type of score in experimental music are those which closely resemble scores from the period of "common practice". One such example is John Cage's *Sonatas and Interludes* for prepared piano (as well as much of that composer's pre-1950's work).

Further distanced – by appearance – from those is Christian Wolff's *Changing the System*. While the score includes many types of notation, some are to be read off the page during performance, but bear little in common with staff notation.

fig. 10: an excerpt from the percussion part to Christian Wolff's **Changing the System**

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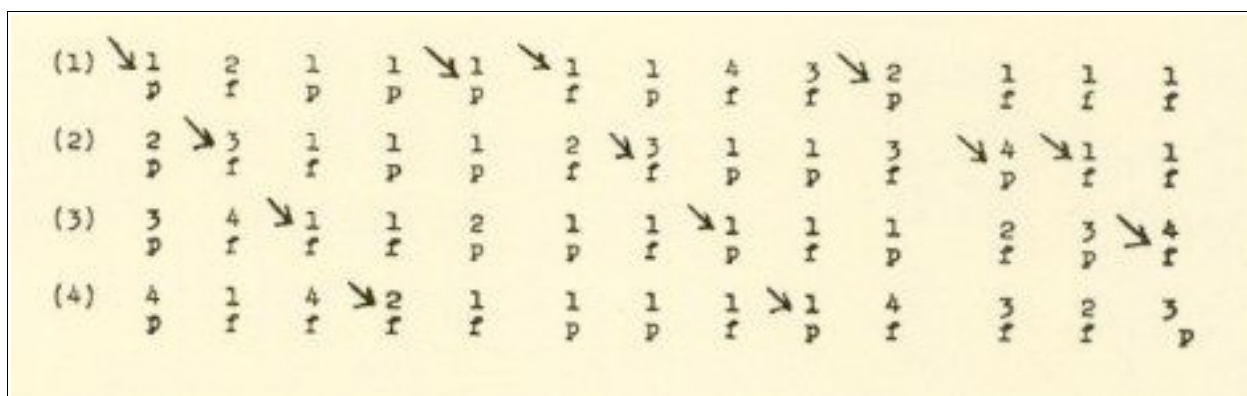
44 While there may be other types of score – video, for example – so far none have been widely adopted by composers, and I use none of them within the accompanying portfolio of works.

fig. 11: an excerpt from the vocal part to Christian Wolff's Changing the System
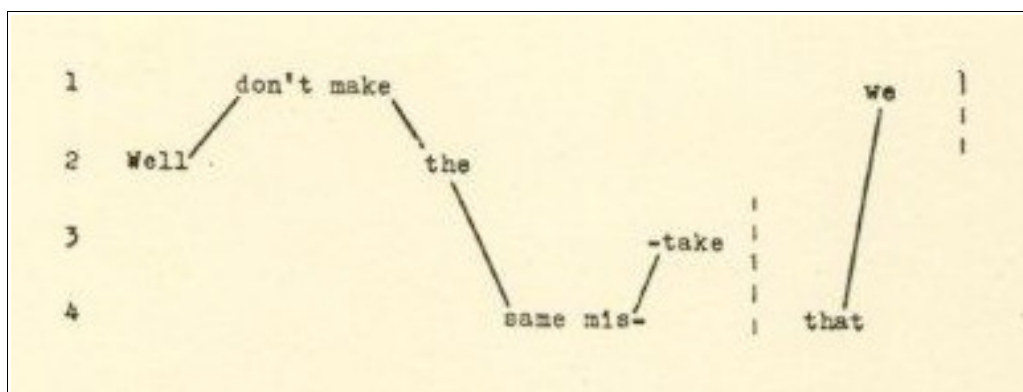
While there have been multiple version's of the score for Terry Riley's *In C* since its 1964 inception, what all have in common is that the notation is laid out on one or two pages for an individual performer to read from in performance. While it may be possible for performers to learn any of these pieces and not work directly off their scores in performance, I am grouping them here as this is how the scores are designed to operate.[45]

A very different, and incredibly explicit example of this type of score appears in Tom Johnson's *Private Pieces*. In many of these works, such as *Song*, it is the reading of the text notation on the page which dictates not only what is played, but also when that something is played – a different reader may read at a different speed, or one's ability to perform both acts (reading and playing the piano) will affect the speed of the performance. Even if the called for actions could be memorised, reading off of the page would still be absolutely necessary for performance.

fig. 12: an excerpt from Tom Johnson's Song

Song

Do not play anything while you are reading this first paragraph, but as you read the following paragraph, play a slow melody on the lower half of the keyboard. The melody should coincide roughly with the grammatical structure of the text you are reading, so that it stops a little every time you come to the end of a sentence. If you can do this, it will almost seem like the melody is singing the words you read. But do not be discouraged if you do not sense that the piano melody is singing the words. You are likely to have some trouble achieving this effect, especially on the first couple of readings.

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45 I have taken part in multiple performances of both *In C* and *Changing the System*, and never have I observed a performer working solely from memory.

A great number of pieces could be added to this list, but I think the above examples demonstrate this as a type of score separate from whatever notation it may contain. This separation of score and notation also exist in the other two types of score illustrated below.

2.2.2:

For the second type, it is often the case that the requirement for secondary production is explicitly called for in the score by the composer. John Cage does this with his *Variations II*, the score for which includes transparent sheets with instructions for the performer(s) to drop the sheets on another sheet included as part the score from which further material is then prepared.

fig. 13: one stage in the preparation of my performance score for **Variations II**
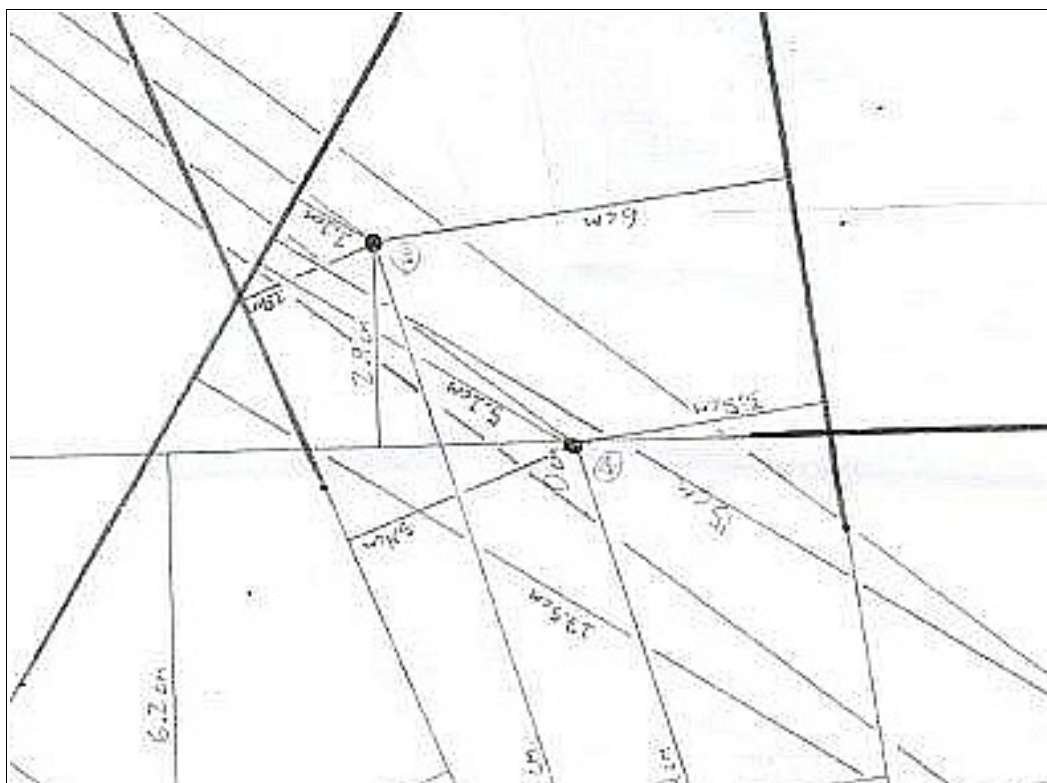
Cornelius Cardew's *Autumn '60* uses a different type of production in conjunction with the score. In this case, the original score remains intact – the same pages as provided to the performer are read from as in the first type of score discussed above – but the performers individually write in parts on an extra stave below the notation that is already on the page. [46]

_____
46 The score states, "The lower stave should be used for writing in whatever one intends to play, or a selection of the possibilities.": Cardew, Cornelius, *Autumn '60*, Universal Edition (1960)

fig. 14: an excerpt from my performance score of **Autumn '60**, *for ukulele*

G. Douglas Barrett's *A Few Silence* is yet another instance of this. In the piece, the secondary production of material to be read from is produced during the performance itself.

fig. 15:

A Few Silence (*location, date, time of performance*)

for any number of performers

Preparation

Each performer provides a battery of instruments/objects with a range of sound-producing abilities including but not limited to: sustained noises, sustained tones, pitched or non-pitched percussive sounds, metallic sounds, wood sounds, plant sounds, brief tones or noises. A stopwatch is required for each performer.

I

The piece starts with a duration of five minutes in which the performers listen to the "silence" of the performance space while creating written scores based on their observations of sounds that occur within this time span. A list of timings should be created, each timing to correspond to a textual description of a sound occurring at the given moment. Included in each description should be features such as the overall shape or contour of the sound, dynamic level, duration, etc. An occasional reference to a sound's source is ok but should not predominate. Examples: "low sustaining tone"; "soft sustaining noise"; "quick percussive sound"; "noisy descending glissando". [*See also the included example score.*]

II

At the end of the five minutes the performers reset their stopwatches and perform their respective scores, creating the indicated sounds to the best of their ability using the instruments at hand. The piece ends at the end of this, the second five-minute duration.

G. Douglas Barrett, 2008

***fig. 16: my performance score from a performance of* A Few Silence**
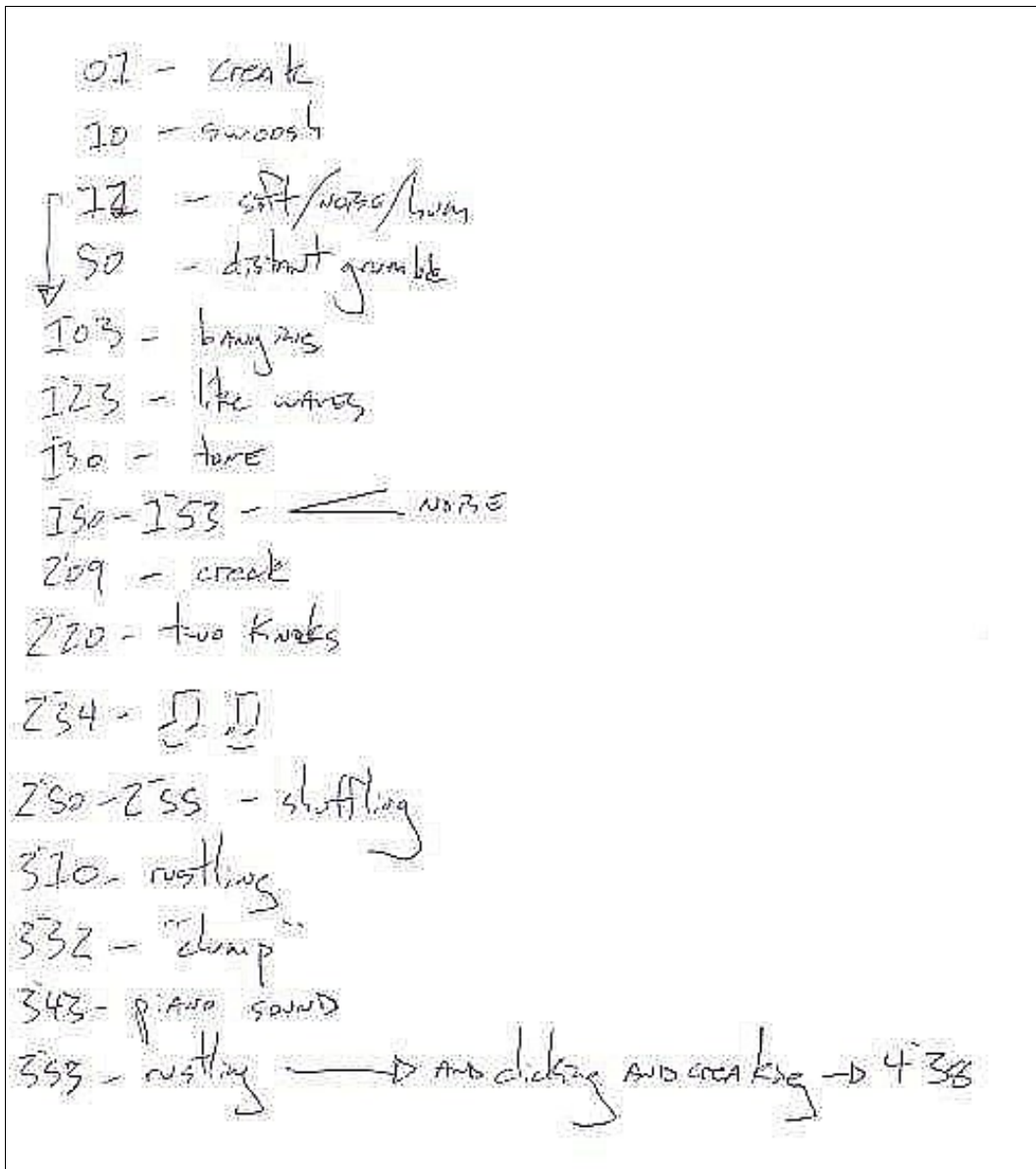
2.2.3:

The third type of score may be explicit, as in Christian Wolff's *Instrumentalist(s) – Singer(s)*, which instructs the performer(s) to "use no written material when playing." However, what is more common is that it simply would not be possible for a performer to have material to read from during performance due to the performative musical situation. Such is the case with John Lely's *Second Symphony*.

fig. 17:

Second Symphony

for 8 or more performers with click-tracks and one sound each

commissioned by Rational Rec

Preparation:

Each performer listens to a click-track on headphones throughout. The click-track consists of one click every second (with another click to help subdivide the second). Each performer uses their own portable digital audio playback device (e.g. mp3 player, cd player). The click-tracks are started at some stage just before the performance, with no attempt at synchronisation.

Each performer chooses a single sound to make every second. The sound should be easy to repeat and fairly short (less that a second).

The performers may be arranged in a line, a semi-circle, or all over the performance space.

Performance:

A single performer begins by making his/her sound once a second in time with the click-track. After some time, another performer enters with his/her sound. The process continues until all performers are making their sounds once a second. Due to the indeterminate alignment of the click-tracks, the sounds will de distributed at arbitrary points within a one second time-bracket. After some time, the performers then drop out in the order in which they began, and at around the same rate as they entered.

John Lely
November 2006

In other cases, as with LaMonte Young's *Composition 1960 no. 7*, material is present which could be read from in performance, but doing so would be of no use, as it is so minimal.

fig. 18:
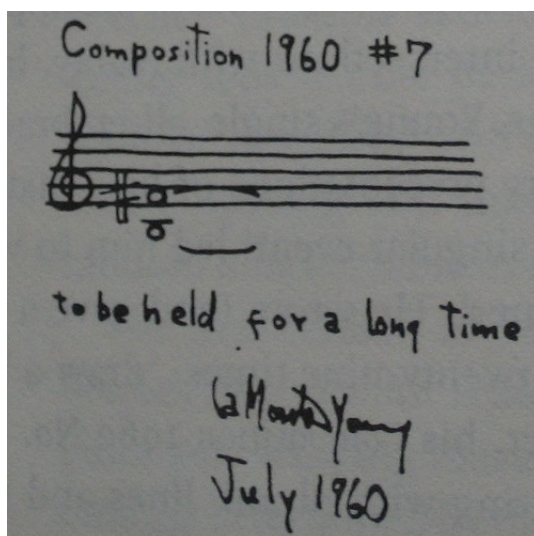
Likewise, in James Tenney's *Swell Piece(s)*, it would be possible for performers to prepare material to read from in performance, but doing so seems to be against the spirit of the pieces, and in no performances that I have taken part in have players done this.

2.2.4:

While these are the three ways that scores may be organised in terms of interaction, not all scores are of one type or another. Some scores may include different types between, or even within, different movements[47]. More often, the type of score a performer is dealing with may not be determined by the composer, but by the performer(s). The same score may be treated differently by different performers based on their received/developed performance practices, their personal points of interest about the piece, the time available for rehearsal, or any number of other reasons. In some cases, a performer will make this determination based on a variety of possibilities. In other cases, only one possibility may seem appropriate or apparent to the performer.

About writing out performing versions of some Morton Feldman scores, as pianist David Tudor did,[48] Frank Denyer says,

> "You *have to* do it with certain things. Not if you're doing the *Projections* because the music is quite leisurely, so you can choose [that is, making choices from the provided notation] as you go along, but if you're doing the *Intersections*, there are so many notes to choose and quickly. I mean there's one place where you have to play over 40 notes in a third of a second (one ictus at MM 176). Choice doesn't come into it. Nobody can choose that fast. When you're thinking about how you're going to play that many notes, consideration has first to be given to deciding what technique could possibly be used."[49]

A similar case where David Tudor – and John Cage – produced secondary material to be read from in performance is Christian Wolff's *Duo for pianists 1*. However, doing so has not always proven to be necessary to perform the piece, as Christian Wolff has made simple annotations to the score itself to read from when he performs the same piece.[50]

Another Christian Wolff piece, *Stones*, may seem from the score to be of the third type I have described above (and in all performances I have taken part in, this has been the case), but this is not explicit and not always the case. For the recording of *Stones* made in 1995 by the

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47 Christian Wolff's "Burdocks" and Michael Pisaro's "The Collection" being two prominent examples.
48 Numerous examples of this are available in The Getty's David Tudor archive.
49 Denyer, Frank, 'Interview by Dan Warburton', *Paris Transatlantic Magazine* (March, 2006): http://www.parisTransatlantic.com/magazine/interviews/denyer.html (accessed September 9th, 2011)
50 Thomas, Philip, lecture at Ostrava New Music Days, 2009 – Thomas had access to the score which Wolff performs from which was demonstrated at the lecture.

Wandelweiser Komponisten Ensemble,[51] each of the seven players approached the score in a different way. All but one (Chico Mello) prepared secondary material to work from in performance. According to Michael Pisaro, preparing his part based on some restrictions all players had agreed to "was like making a score."[52] Between the seven players on the recording, the approach varied from Mello's use of no material to Thomas Stiegler's "beautiful score, very precisely notated." [53]

The above are cases where the performers have made choices which were not explicitly made available in the score, though this is also possible. In the Prefatory Note to Earle Brown's *December 1952*, the composer writes that,

> "It is primarily intended that performances be made directly from this graphic "implication" [the score] (one for each performer) and that no further preliminary defining of the events, other than an agreement as to total performance time, take place. Further defining of the events is not prohibited however, provided that the determinate-system is implicit in the score and these notes."[54]

Cornelius Cardew's *Treatise* is a case where these two performance options are available, but implicit in the score as opposed to being spelled out in any sort of note. As in *Autumn '60*, staff lines are provided on the score itself below the other notation, so one (especially those familiar with the earlier work, *Autumn '60*) may conclude that the appropriate way to approach the score would be to write in new notations to read from. That being said, I have yet to take part in a performance of *Treatise* where this has been done, though other annotations have been added to the score by myself and other performers I have worked with. It is rather the case that writing a part in, *a la Autumn '60*, is only *an* appropriate way to approach the score.

Tom Johnson's body of work also offers some interesting cases of scores which are not explicitly of one type or another. *Maximum Efficiency* includes two scores within the same binding: one in a notation to be read from in performance, and another with short fragments of notation which may be read by performers as cues once they have learned the system within the piece by way of the other notation, making it fall somewhere between the first and third type of score as I have established them. His *Infinite Melodies* exist only in such a form where a system is established by the notation in the score which the performer is to elaborate on in performance. However, a performer may approach one of these *Infinite Melodies* in any of the three ways: s/he may 1. read what is on the page and continue playing with no notation after what is provided has been exhausted, 2. write out a performance version, the entirety of which may be read in performance, or 3. learn the system from the score and perform with no printed material. Similarly,

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51 Wolff, Christian, *stones*, EWR 9604, Berlin: Edition Wandelweiser Records (1996)
52 Pisaro, Michael, email correspondence 27-1-10
53 Beuger, Antoine, email correspondence 27-1-10
54 Brown, Earle, *Folio and Four Systems*, G. Schirmer (1954)

about Christian Wolff's *Fits and Starts*, Michael Pisaro observes,

> "In trying out the sequences themselves, it might become clear to a performer that they will need to write out the numbered pulse points in order to keep track of an involved counting procedure."[55]

The main point I want to make here is that the way a performer interacts with a score can be built into it by a composer – by design or necessity – to come to a way of facilitating an instance of the piece in performance. If not purposefully built into the score, these types of interaction should at least be considered. This isn't necessarily contingent on the type of music being produced (aurally) or the notation that is present on the score.

2.3: Notation

Already evident from the score examples given above is the fact that many different types of notation are utilised by the experimental music composer and that these are not necessarily tied to the type of score in which they are employed. In 1972, Italian composer Guiseppe Chiari categorised his scores based on the type of notation they contained. For this, he devised three groups: 1. scores with notes, "As usual […] (chords, arpeggios, phrases, monodies)," 2. scores with "signs," or what may more typically be called "graphic scores," and 3. text-scores, "written according to the usual literal language."[56] To encompass the majority of scores, I would likewise break notation down into three broad categories similar to Chiari's. While simultaneously more broad, I also feel that these categories are internally more specific in their nature. They are:

1. those notations which are understood to exist only or primarily within the realm of musical notation, are widely used and understood to have a common meaning in that use, as well as those new notations which seek to function in such a manner.

2. unique notations – those notations which also do not exist outside of the realm of musical notation, but are unique within their usage in specific instances – brought about by way of specific instances/pieces.

and

55 Michael Pisaro, qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.50

56 Chiari, Guiseppe, *[untitled]* (1971): http://www.strano.net/town/music/chiaribi.htm (accessed January 17th, 2010)

3. found/appropriated notations – those notations derived from sources outside of a use as such

2.3.1:

The most common example of this first type of notation is staff notation. This includes not only the staff and the rhythmic and pitch notations placed on the staff, but also additional modifiers to these indications: dynamic and phrase markings, fermatas, and other modifiers. Within this group I would also place those newer notations which function in the same way, such as those for multiphonics, harmonics, methods of bowing, etc. These modifiers may exist as invented symbols, letter abbreviations (as for dynamics), or types of tablature (for woodwind fingerings above notes on staves, for instance).

These notations are able to function because of tacit agreements made between communities of composers and performers that they have certain meanings. For this reason, they quickly become familiar to the performing musician. So, despite some of the new requirements within individual pieces, they may be easily approached if not mastered. For instance, a player familiar with using this notation for pitches may learn to read a similar notation calling for different kinds of pitches. As Earle Brown comments, "The development of notation to represent quarter tones was successful mainly because it only takes a minor modification of existing 'accidentals' to indicate the additional pitches."[57] This same thinking has lead to the development of the Helmholtz-Ellis JI (just intonation) pitch notation by Mark Sabat and Wolfgang von Schweinitz. [58]

Concerning the rhythmic elements of this notation, similar developments have been utilised by composers such as Michael Finnissy and Brian Ferneyhough (new types of time signatures and polyrhythmic notations, etc.). While not based on staff notation, a similar rhythmic development was time-space notation. Both systems rely on relativity for understanding; the first on figures being relative to each other within a given symbolic system, and the second relative to an established rule based on physical measurements of the notation within its own confines or in relation to the score as physical object. The important point is that there is an understood abstract functionality to the notation which exists outside of any given piece.

This separation is what distinguishes this type of notation. Henry Cowell made many such suggestions, such as noteheads of different shapes indicating different subdivisions of the beat, in his book *New Musical Resources*. Whether or not they have been adopted is immaterial – the notations are designed to function *as notation* apart from specific pieces of music. That this would

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57 Brown, Earle, 'The Notation and Performance of New Music', *The Musical Quarterly*, Vol. 72, No. 2 (1986), pp. 180-201: Oxford University Press, p.186
58 See Sabat, Marc, and Wolfgang von Schweinitz, 'The Extended Helmholtz-Ellis JI Pitch Notation', Plainsound Music Edition (2004)

have been possible with Cowell's shape idea is implicit in the wide-spread use of "shape-notes" in the singing of hymns in the southern US. In that case, it is relativity to tonal centre based on the solfege-like system which the various note-head shapes indicate. [59]

*fig. 19: excerpt from John Cage's **Imaginary Landscape IV**, where staff notation is read by performers manipulating radios*

*fig. 20: excerpt from John Cage's **Sonatas and Interludes***

59 Examples of this type of notation abound, the most famous being *The Sacred Harp* (see, for instance: Cooper, W.M., ed., *The B. F. White Sacred Harp, Revised Cooper Edition,* Samson, AL, USA: The Sacred Harp Book Company (2006))
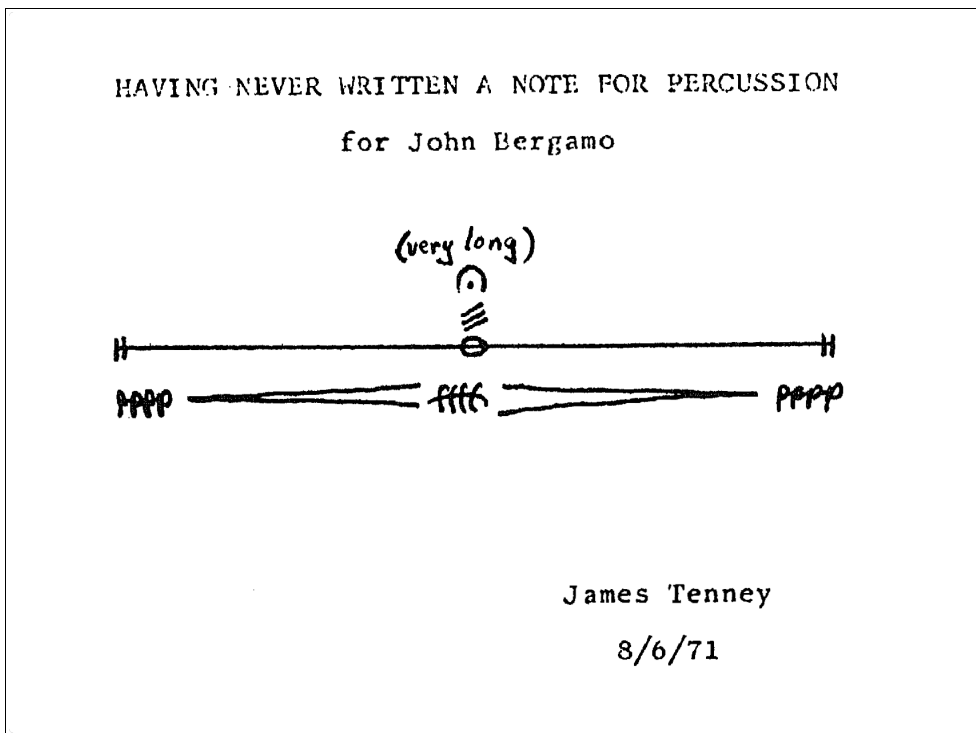
Another type of traditional notation is tablature. While different from staff notation in many ways, it is similar in that it may exist as a notation apart from a piece which employs it. Historical examples are numerable, especially in the repertoire of the fretted string instruments where it is still a common practice. While not as widely used for other instruments, it has recently seen a resurgence in notated music for many different instruments. One of these instances is in the introduction of Christian Wolff's *Long Piano*.

fig. 22: excerpt from the introduction to Christian Wolff's Long Piano – *each line corresponds to a finger. The keys played are at the player's discretion.*
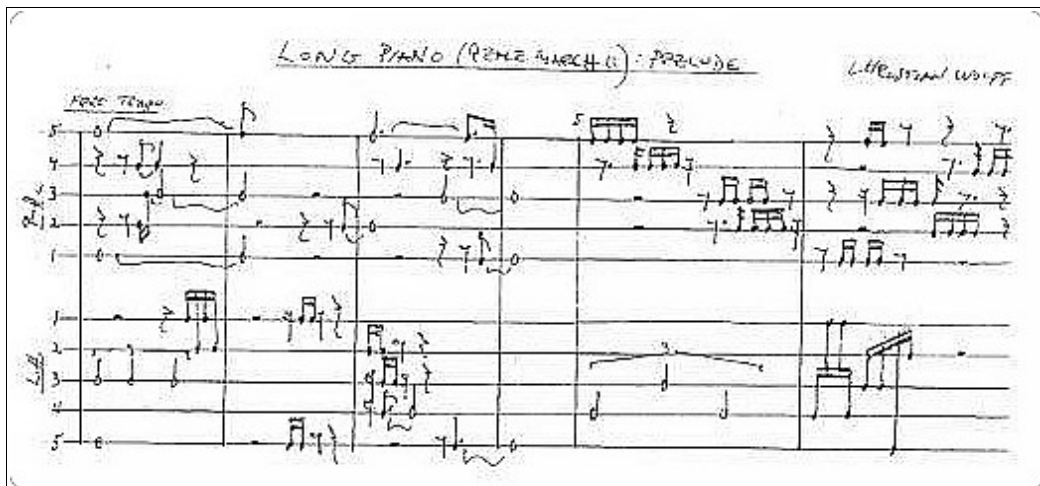
While conventional *as notation* these methods need not work towards any given conventional or standardised ends.

2.3.2:

The second type of notation is the one that is hardest to come to grips with for composer or performer. This is because of its pure uniqueness. Earle Brown wrote that one of his "reasons for becoming involved with new notational systems" was his "[b]elief that complexity and subtley of the desired sound results had passed the point at which standard notation could practically and reasonably express and describe the desired result."[60] In this case, that argument does not go far enough, for that is the reason – in many cases – for modifications being made to existing notations. As Brown as also stated,

> "Although there have been numerous scores written which have utilized nontraditional notations, there are relatively few in which the notation has played a really functional role in the essential nature of the musical conception of the work. By 'really functional role,' I mean that the piece could not be notated traditionally and that the sound of the work is of an essentially different character because of the new notation."[61]

If I may read into Brown's statement, it is supporting what I have termed to be "unique" notation. That is, it concerns notations which could not exist outside of the work for which they were conceived; that is their "really functional role […] in the conception of the work." I think that Brown was successful in this with *December, 1952*, and in other works within *Folio*. Some include similar notations, but never in the same context – there are no other pieces like *December, 1952* with the same set of (non) rules or possible relationships for performers to learn/develop/apply from piece-to-piece by using notation as a common reference. Cornelius Cardew took this line of thinking to an even further extreme. He

> "wrote *Treatise* with the definite intention that it should stand entirely on its own, without any form of introduction or instruction to mislead prospective performers into the slavish practice of 'doing what they are told.'"[62]

The above two examples of what may be called "graphic notation." On this topic, Robert

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60 Brown, Earle, 'The Notation and Performance of New Music', *The Musical Quarterly*, Vol. 72, No. 2 (1986), pp. 180-201: Oxford University Press, p.191
61 Ibid., p.181
62 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.97

Ashley wrote,

> "*Graphic notation*: a tendency during the past 20 years [this was written in 1974] in particular and now increasingly refined to place signs on the page whose meaning has no habitual interpretation for the performer"[63]

This is essentially a restatement of Cardew's statement concerning *Treatise*. However, Ashley goes on to criticise such work as

> "substitution of context; sign into symbol; lead into gold. Irresponsibility, or the last echoes of an old habit? This is problematic. Unresolvable. Language says that in graphic notation we have reverted to pictures. As if (first language of indignation) something infinitely complex had been destroyed. A fundamental lie. Something finitely complex wore out. Pictures were an attempt to rescue something from the fire. Gallant but hopeless."[64]

This is quite a statement, but within it I find quite a bit worthy of discussion. Use of graphic scores may well not be widespread, but by grouping them within this group of notation, all elements of Ashley's statement do not apply. That something finitely complex (the first type of notation) may have worn out its purpose is clear from Brown's statement about why he moved into new notations. However, these are not the only ways of creating scores which have no habitual way for performers to interpret them. A composer may make a score with new notation where habitual interpretation is possible only within the piece where it is used.

This is the case with many of Christian Wolff's notations. In *For 1, 2, or 3 people*, for instance, notation has a very clear function which may be learned with practice. However, to replicate any exact elements of this notation in another piece would be largely impossible due to their nature as applying to the specific performance situation within the piece.[65] Similar notations have however been used in pieces such as *Duet II* and *Changing the System*. In each instance, the way the notation is applied must be re-learned for each piece, though familiarity with general concepts on various orders of magnitude may be drawn from the body of work. Wolff didn't try to rescue anything from the fire – from the wearing out of something of finite complexity, he came to develop something with a completely different sort of complexity. What is unique about this kind of notation is that it really influences the music in ways that other notation usually does not; you could not transcribe one of these pieces using another type of notation as one could, for instance, write a lute tablature in staff notation, or change rhythms written in conventional staff metric notation to

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63 Ashley qtd. in Byron, Michael, ed., *Pieces : A Second Anthology*, Ontario: Michael Byron (1976), p.117
64 Ibid., p.117
65 That is, it would be impossible for Wolff (or anyone else) to reuse the exact notations while also maintaining the essential unique nature of the piece for which they were originally conceived; using the same notations would effectively be rewriting the same piece.

being written with Henry Cowell's proposed system.

Numerous examples of this way of thinking are demonstrated in the works of James Tenney. *Beast*, a double bass solo written in 1971, is of particular interest. While written on graph paper, the notation breaks most trappings of the "graphic score." It calls for something very specific and finite. However, to use the notation within another piece would require such a transformation that similarity would be only graphic, so much is the notation related to the specific requirements of the piece; the tuning of the instrument, the range covered within the piece, and its relative durations.

fig. 23:
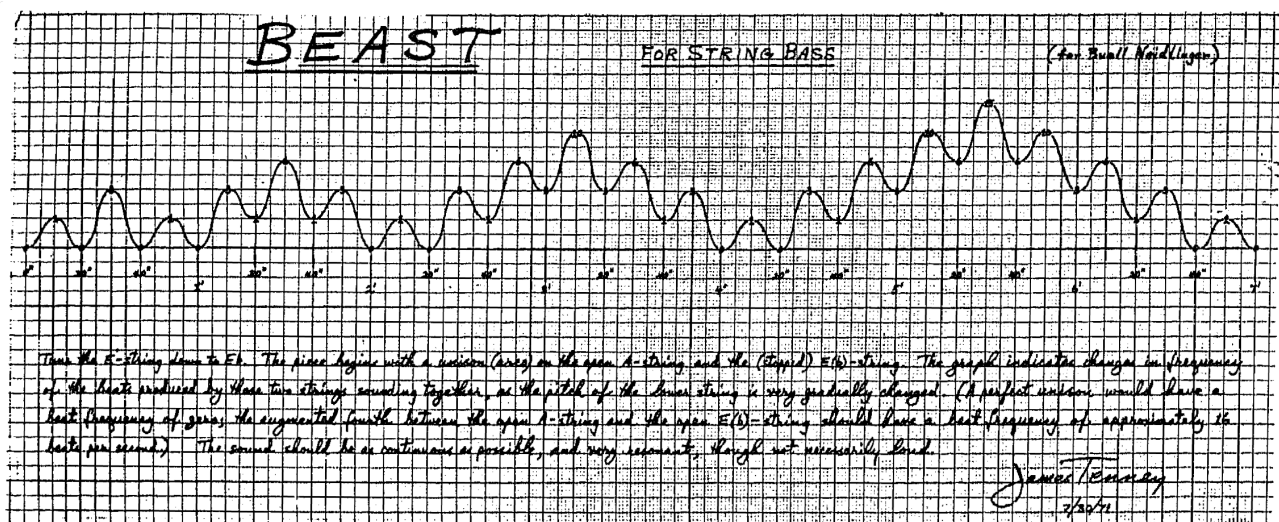
2.3.3:

The third type of notation has roots elsewhere. Its elements are appropriated from forms of writing other than the score. These things being, primarily, text and numerals. Scores wholly notated in this fashion are often called text-scores. As Michael Pisaro notes, this form of notation, "combines elements of technical writing, the instruction manual and various forms of literature – all geared towards getting a set of sonic results to happen."[66] My own interest in this form of notation came about because of many of the same reasons for which Robert Ashley criticised "graphic" notation.[67] A move toward the use of something with a firmly established use – language – and away from that which exists only as notation gives the composer license to use not only that which is available to notation and previous musical understanding, but all of that which is available to

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66 Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.48

67 I would like to note however, that in all of these cases where notation is printed on a page – or is in any way visual – it is a graphic notation, which is why I reject that term as a useful category.

language as well. However, scores containing text notation, like the other types of notation discussed, do not exist as one homogenous group. Some may consist of prose instructions, and others as something else entirely, possibly resembling poetry, or an inventory. Michael Pisaro notes that Antoine Beuger, "uses a kind of poetic license in the elimination of what, in prose, would be necessary grammatical units."[68]

Various ways in which text can be used as notation are demonstrated within James Tenney's group of *Postal Pieces*:

fig. 24:

MAXIMUSIC

for Max Neuhaus

(1) Soft roll on large cymbal; constant, resonant, very long.
(2) Sudden loud, fast improvisation on all the other (percussion) instruments except the tam–tam(s)—especially (but not only) non-sustaining ones; constant texture; continue until nearly exhausted from the physical effort, but not as long as (1); end with tam–tam(s) (not used until now)— just one blow, as loud as possible.
(3) Same as (1), but now inaudible until all the other sounds have faded; continue ad lib but not as long as (1) or (2), then let the cymbal fade out by itself.

James Tenney
6/16/65

68 Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.60 – see, for example, figure 23, *cadmiumgelb*

fig. 25:

For Percussion Perhaps, Or . . . .

(night)

for Harold Budd

very soft

very long

nearly white

James Tenney
8/6/71
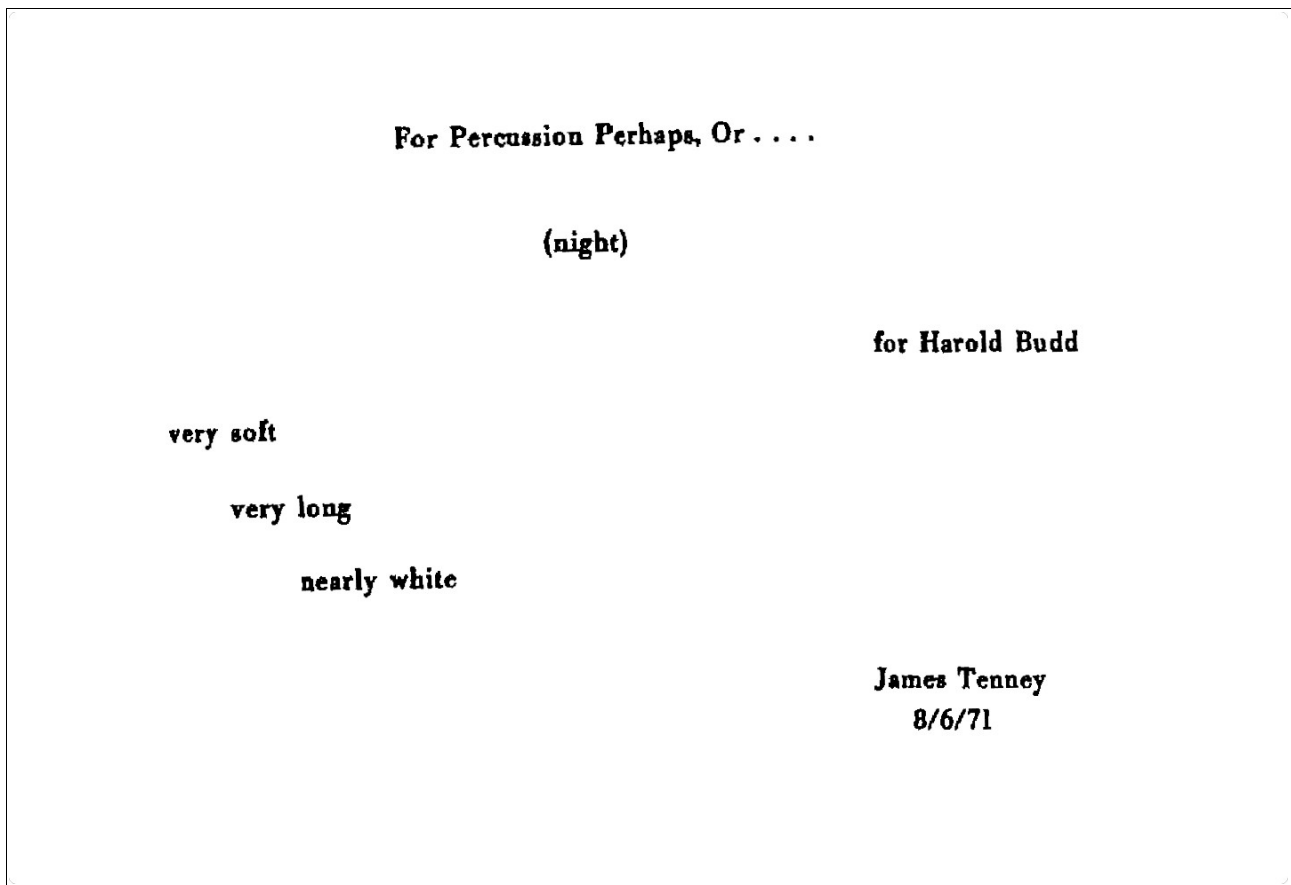
Here we have two very different examples of text used as notation, but they are not in any way encompassing of the notation's possibilities and multiple uses. What may also be apparent from these examples is that text as notation does not only borrow from language, but from typography as well. Different sizes of type, fonts, etc. may be employed for various purposes.

Despite being grouped together as *Prose Collection*, some of Christian Wolff's text scores demonstrate that this notation may be many things other than prose:

You Blew It

The letters stand for the sounds, as far as can be managed, which the letters in the above phrase stand for, except that "ou" stands for both the "ou" in "you" and the "ew" in "blew".

```
y              ou—b   lou    i         t
t—you     bl        ou        i
it—y      ou       blou
ou—it     y       ou—bl
lou           t—y     ou—b    b    l    ou—i   t—you
ou—blou      it
bl            ou—it
```

Inflections possible at line ends: ? (proper or rhetorical) or . (declarative or ironical) or ! (pleased, displeased or invoking).

Pauses of any lengths are represented by the spaces between letters or combinations of letters.

Durations of sounds may be long (ca. 3 seconds or longer) or free.

Where letters or combinations of letters are connected by a line:

  (a) those before the line (e.g. ou—) should be long and those after (—b) are free; then, at the next pair,

  (b) those before the line are free and those after long, then

  (c) both those before and those after are free.

Thereafter freely between (a), (b) and (c), and occasionally apply one of them to two successive sets of letters or combinations of letters connected by a line.

Each of any number of players may start at any line; repeat any line as often as desired before continuing to another, but do not return to it. Sing as many of the lines as desired.

When using pitches repeat no pitch on successive vocal articulations.

Crazy Mad Love

Number of articulations (of any kind) per word, using any of the three title words, in any sequence and freely repeated:

5   2   1   2   11   2   1   3   3   1   2

"1" articulation must be managed as far as possible, particularly with the two syllable word; observe the numbers in the sequence given, which can be repeated as often as desired and cut off at any point; spaces, pauses between numbers (articulations of single words) are free.

The same numbers and requirements apply to each non-vocal production of a sound. Include at least one vocal and one non-vocal playing in any performance.

From one to six people can play.

In *You Blew It*, we are dealing with two different text notations within the same score – interrelated, but with different functions. It makes explicit some of that which may have only been implicit in Tenney's *(night)*. *Crazy Mad Love* includes the other main type of appropriated notation: numeral.

Numerals are uniquely suited to work as a musical notation, as we (if "we" are performers, for instance) already have an understanding of them both in meaning (as we do with words when reading text), and furthermore as abstract signifiers. While not written with only numerals in mind, the following quote from Cornelius Cardew further elucidates why they may be a useful notation:

"[...] it is reassuring to be familiar with the sign, even though not with its meaning. [...] things which are difficult to understand should be said in such a way that at least they are easy to read; otherwise the difficulty encountered in reading prevents you from even starting to understand. [...] Another point is that a familiar sign is much more easily recognized

(identified), and consequently one does not have to waste time comparing the sign with a model in order to be sure that you are interpreting the right sign."[69]

This is quite a contrast to Cardew's previously quoted statement about *Treatise*, and may be the main purpose for using this type of notation over a newly invented type. The last point is especially apt when considering whether or not to use an invented or appropriated sign. This has to do with differentiation. As Michael Pisaro has observed, "Numbers are ideally suited to the task of setting off or defining units of a multiplicity,"[70] and numerals are an efficient way of presenting numbers within a score. Numerals may be used in notation to denote a number of things for a perfomer to do (as in *Crazy Mad Love*), to differentiate between performers in the notation of Manfred Werder's *[numeral] ausführende* pieces, or simply as a way to present clearly distinguished abstract properties, the differentiation of which may not be as easy, or even possible, with other notations.

2.3.4:

These different types of notation may be – and very often are – combined within the same score. This may be done for any number of reasons, but ultimately should be dictated by what is best for the creation of a score to a piece. The use of one notation (such as text) along with another (staff, for instance) may be done for what might seem like a secondary purpose, but if one were left out of a score, the piece could be altered – I do not want to suggest what hierarchies other composers may have had in mind when creating scores.

Text becomes notation as soon as a title is placed on a score. This is one of its many functions. In *You Blew It*, Christian Wolff used text as notation to read from in performance, but also to give instructions on how to read that notation. This is a common tool used by many composers, though the instructions are often separated from other notations structurally within the score. This does not mean that they are not part of the notation – without them, the rest of the notation would lose its function (this is generally the case with otherwise unique notations, with the exception of works like *Treatise*).

"'Rules' and 'notation' are inextricably intermingled, and it is misleading to separate them. There never was a notation without rules – these describe the relationship between the notation and what is notated. The trouble in classical music is that so many of these rules are inexplicit – given by tradition, and obeyed to such an extent subconsciously that they

69 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), pp.10-11
70 Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.35

would be difficult to formulate."[71]

What is implicit and what is explicit in notation is not a concrete thing. These are questions of both performance and composition.

> "I remember one of the first letters I wrote to [Morton Feldman]. I think it was about *Piano Piece 1964*, and on the page there were many grace notes hanging in space. Some of them are white and others are black. My question was, what's the difference between a white grace note and a black grace note? Morty wrote back and said: 'Don't be so literal. Be musical. Instinctively you'll know the answer.' Now, that set a tone for our work together but today it doesn't quite satisfy me, because I realise that he made those choices when he wrote the piece. Did their mere visual character appeal or maybe they were suggested by some since forgotten aural differentiation? They are there, and something must have prompted them."[72]

Some assumptions must be made for many notations. When writing a score in staff notation, it is assumed, unless otherwise notated by text, that it is to be read "as normal." Likewise, when writing a text, one will likely assume that the reader can understand the language in which the text is written. For a new notation of the first *or* second type, a choice must be made whether or not to give some sort of instruction with the knowledge of what consequence that may have. One wouldn't want to be trying to work with a notation of the first type only to have a performer interpret it as the second, or vice versa. For instance, while we may hear something interesting if someone reads the notation of a piece by C.P.E. Bach as if it came from no tradition and had no established rules, we would not be hearing the piece which that notation was meant to correspond to any more than we would a performance of a text-score written in a language which the performer cannot understand.

Not only can these different types of notation be combined, but there is also some fluidity between them. For instance, text is used in common practice notation for certain musical indications, often as abbreviations of Italian words which have come to have specific meanings as notation to the point that they are now recognised as signs themselves and elements *of* that type of notation and not as something belonging first to written language (the dynamic indications, from *p* – *f*, for instance). This is not to say that *all* text used alongside staff notation takes on that function. There are grey areas, as in Frank Denyer's anecdote about Morton Feldman's two types of grace notes – sometimes one notation can be modified to become another entirely. This is certainly the

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71 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.18
72 Denyer, Frank, 'Interview by Dan Warburton', *Paris Transatlantic Magazine* (March, 2006): http://www.parisTransatlantic.com/magazine/interviews/denyer.html (accessed September 9th, 2011)

case in *Treatise*, which despite including symbols borrowed from staff notation does not borrow their function (necessarily).

One of the most interesting examples is brought about through a process of subtraction – the use of unstemmed note-heads. These are used by numerous composers today with some accepted meanings. Generally, an open note-head will be longer in duration than a filled-in note-head. This isn't always the case though. In Christian Wolff's *Exercises*, filled-in note-heads are to fall within a given set of durations, but open note-heads can be any duration at all. Morton Feldman uses both, with no instructions given as to their interpretation, in *Last Pieces,* as with the two types of grace notes in *Piano Piece 1964*. Through bodies of work by one or many composers and/or through performance practice, meanings may develop for a particular notation (as was the case with the use of certain text within common practice notation) which brings it from one group into another. While I assume this process will continue, such development should not be taken for granted, as doing so limits what is available to a composer. Having certain signs available – such as the unstemmed note-heads – with no fixed meanings allows a composer to use them to suit his or her purposes in a given situation. Some methods of notation from the past have been largely abandoned, and I would assume that some in use now will be abandoned in the future. Earle Brown said that,

> "Varèse has said that just because there are other ways of getting there, you do not kill the horse. And for those who tend to feel endangered by recent developments, this attitude can be applied as well to my attitude in regard to the use of 'standard' notation today." [73]

I agree. I also embrace the multiplicity inherent in the wide variety of some notations used in experimental music. About this, in relation to his own notation, Christian Wolff said, "open notes are zeroes – they could be any duration at all [...] the equivalent of pause in sound." [74] This is a physical combination of two different types of notation, and may be read as an open note-head and/or a numeric "0" by different performers. Knowledge of Wolff's dualistic reading of this is immaterial, so long as the notation effectively conveys its purpose in the score, just as two players may approach the same score as one of the two types – if the piece comes into being in performance, the notation was effective.

2.4: What Scores ask of Performers

Now that the physical ways in which performers may deal with scores and the types of

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73 Brown, Earle, 'The Notation and Performance of New Music', *The Musical Quarterly*, Vol. 72, No. 2 (1986), pp. 180-201: Oxford University Press, p.182-183
74 Wolff, Christian, lecture at Ostrava New Music Days, 2009

notation which may be included in those scores have been covered, I will address what those scores may be asking of the performers – what those notations on the score call for. Again, I have broken this down into three primary groups:

1. calling for/describing sounds to be produced

2. prescribing actions

3. requiring the performer(s) to make some production or to create a situation either inspired by the score, or that could not have happened without interaction with the score independent of specific sounds or actions

2.4.1:

     Calling for sounds is what scores have done throughout the bulk of the history of Western music. This is familiar to those who know about the period of common practice and associated staff notation. However, regardless of the type of score and the type of notation used, any score may do this. A score which calls for "middle c" in staff notation or in a notation as used in Manfred Werder's *stück 1998* is a prompt to produce a pitch of a certain frequency. This may be combined with a notation for a specific amplitude, envelope, timbre, etc.

     Calling for a range of sounds, or something from a selection of sounds, is still calling for sounds. This is evident by considering various tunings. If a score specifies a 'C', this same tone could be a different frequency depending on what tuning is used. Antoine Beuger uses written pitches on a staff to denote "pitch zones," where a written 'e' would sound anywhere between 'e-flat' and 'f' (here it is assumed that the reference for these "pitch zones" would be equal temperament A=440 tuning).[75] Sounds may also be called for in a more general way, such as in some of Morton Feldman's scores which call for "high," "middle," or "low" sounds, sometimes along with timbre/envelope indications such as *pizzicato* on a high 'cello note.

     Calling for sounds does not have to call for sounds involving specific pitch or timbre. An "extremely low rumbling" is called for in G. Douglas Barrett's *Derivation X*. An indication can be as simple as "pure tones of any pitch, any tuning of that pitch, very soft," in Michael Pisaro's *Sometimes [harmony series no. 1]*, or simply requesting sounds of varying complexity in John Cage's *Variations II*. This same variability can be applied to all parameters of sound including duration and placement in time, as in James Tenney's *Swell Piece*. The level of determinacy or indeterminacy within the request for sounds is immaterial; the basic requirement is the same.

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75 This can be found in *three drops of rain/east wind/ocean* , among other pieces by Beuger.

How the sounds are produced (what fingering a clarinetist or violinist may use for a pitch, or how one may produce an "extremely low rumbling") is not what is asked for in this type of score. It is important to the composer that sounds are produced within the given parameters of the score. All of the different types of score and notation so far discussed may do this.

2.4.2:

While the performance of most music ultimately results in the production of sounds, these sounds that come into being may not be called for in the score, but come about through what a score does call for. A score may call for actions.

> "[T]he objects of aural perception are events, not things: we hear 'someone close a door', 'a car pass by', 'someone hammering a nail into the wall'. Music draws on this ability: we hear someone play the clarinet, we hear how he does it, what physical force he has to mobilize."[76]

Playing from these kinds of scores, "it is […] fine if a note goes, say, flat or sharp at the end of a breath. It gives an apparent reason for stopping (the *real* reason, after all)."[77]

Tablature is a notation which calls for such actions. It tells the player what to do with their body; what frets to depress on what strings of a guitar or lute, perhaps. In some, these notations are involved with sounds in a specific manner. They can dictate not only what pitch a guitar is to produce, but on what string – what specific timbre. However, this is in no way necessary. A tablature may exist independent from a given tuning or placement of the hand, instead only dictating what physical actions a player makes, leaving sound production indeterminate. This is the case with the tablature used in Christian Wolff's *Long Piano* (figure 17) which explains only which finger on which hand to depress for a relative amount of time, but not which keys those fingers should depress. This is in contrast to the notation used in John Cage's *Sonatas and Interludes* (elaborated upon below), which indicates which keys to depress, but not which fingers to use.

Staff notation for percussion functions in a similar way, especially in the case of notations for un-pitched percussion, where a notation may simply tell a player when to make a sound with which object. If the objects to be struck are left open, all that is left is an indication to *do* something at some time. This is how John Cage's *Imaginary Landscape IV* for twelve radios operates.

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76 Beuger, Antoine, *Jos Kunst: 'Making Sense in Music'* (2001): http://www.joskunst.net/proefschrift (accessed January 15, 2010)

77 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.12

Sounds will come out of the radios, but what they will be is unknown to both composer and performer. Though in staff notation, all the score tells a performer is what to do and when to do it. This is also the case with the prepared piano music of John Cage, such as *Sonatas and Interludes*.

> "When I first placed objects between piano strings, it was with the desire to possess sounds (to be able to repeat them). But, as the music left my home and went from piano to piano and from pianist to pianist, it became clear that not only are two pianists essentially different from one another, but two pianos are not the same either. Instead of the possibility of repetition, we are faced in life with the unique qualities and characteristics of each occasion"[78]

The same staff notation that was ordinarily used for the piano up until that point is still employed, but here it no longer represents pitches, but instead keys on the piano to be played, in no way reflecting the sounds that will be produced by those actions. This alteration of purpose can be the case with whatever form of notation is used.

Robin Hayward says of the score for his violin solo, *Crossbow*, "This is the manual, like an ikea manual."[79] That is, it tells the performer what to do with the physical materials at hand. While the type of notation used and way of interacting with the score are different, James Saunders' *imperfections on the surface are occasionally apparent*, for paper cups and surfaces, functions in the same manner. Antoine Beuger's *cadmiumgelb* (figure 23), for solo contrabass, uses yet another type of notation for the same purpose – to elicit a physical action from the performer.

It is the carrying out of the required actions in time which make the piece. Even in a case where timings are open, this is still the case. This becomes absolutely clear by considering pieces in which sound, if it occurs at all in performance, is immaterial to the situation of producing the action(s). Such is the case with the pieces *fish* and *bridge*, from Michael Pisaro's collection of pieces, *everyday*. The two pieces call for the movement of a chair and manipulation of light sources within the performance space, respectively.

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78 Cage, John, *Empty Words*, Weslyan University Press (1981), p.8
79 Interview with Robin Hayward, August, 2009. In follow up email correspondence (13 April, 2010), Robin went on to write, "Actually in *Crossbow* the real score become the violin with the colour-coded strips, once the rules for movement have been internalized by the player. This is probably what I meant in comparing the written notation to Ikea instructions. On my website I simply put some photos of the prepared violin up under 'score'"

cadmiumgelb
for double bass

antoine beuger
2000

„painting that is almost possible, almost does not exist, that is not quite known, not quite seen"
(ad reinhardt)

hold: a natural harmonic

bow: almost standing still
(a whole bow = 10 minutes)

after about two to four minutes: standing completely still

after about 6 minutes the piece ends

2.4.3:

The third type of thing which a score may ask of performers is both the least common and the least lacking in any type of systematic formality. These are scores which neither prescribe sounds nor call for particular actions. The existence of the piece in the abstract in these instances lies in the interaction between performer and score. As Cornelius Cardew put it,

> "A composer who hears sounds will try to find a notation for sounds. One who has ideas will find one that expresses his ideas, leaving their interpretation free, in confidence that his ideas have been accurately and concisely notated. […] The sound should be a picture of the score, not vice versa."[80]

His own *Treatise* functions in such a manner. About that work, Michael Pisaro wrote,

> "[...] *Treatise* functions as something like a screen or filter through which a musical intention passes into performance. In the best performances it will have transformed in some subtle, but important way, the music that might otherwise have been created. [...] something more directly musical can also happen, even if it is rare: a situation in which someone has been driven to make a more direct or less self-centred, less style-conscious music than they would have dared to make as an improviser or composer. The images can, in such cases, release a desire in a performer they would not have known otherwise."[81]

In my experience as a performer, Pisaro's comments ring true. When faced with *Treatise*, the potential performer confronts a daunting task: how could this ever be done? One must find a way to do it or simply abandon the pursuit. However, neither does a score which asks for such a task from the performer have to be so daunting in size/scope, nor does it have to involve such invented notation.

One of the other most effective examples we have of this type of interaction is James Tenney's *(night)* (figure 25). Even the title is suspect: something to be derived; parenthetical; lowercase. What may be a performance indication "For Percussion Perhaps, Or ..." is strangely capitalised, giving it an air of importance, which, in its language ("Or ...") it immediately diffuses. Nothing on the score – with the possible exception of the dedication – makes the situation any more clear. There is the layout of the text on the page, which, if symbolic musical graphics instead of words, may have suggested temporal and/or hierarchical relationships, seem here to only further

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80 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.99
81 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), pp.45-47

separate them from functional prose. The title (if it is a title) also suggests time, or *a time*.
Everything is multiplicity. "Soft," "long," and "white" are all words which may describe both sounds
and physical objects. What is the performer to make of it? There is no one solution, but I have yet
to encounter a performer finding a solution which does not bring about a situation I am confident
would not have been realised without interaction with the score. Despite the diversity between any
two performances, what they have in common is that they could or would have happened without
Tenney's score as a prompt. This is a demonstration of a test that may be carried out to see if this
is what a score demands of performers: could the piece be taught to a performer without the
score? If so, the score is likely calling for sounds or actions and the abstract identity of the piece is
not contingent on this interaction between score and performer.

2.4.4:

As with the other topics I have discussed, these divisions are not black and white. There
are grey areas. The notation for James Tenney's *HAVING NEVER WRITTEN A NOTE FOR
PERCUSSION* (figure 21) gives no instrumental indication, but presents a notation indicative of
performance on a percussion instrument corresponding to a physical action of the performer. It
also gives very specific dynamics, so to some extent sound must be considered. However, these
dynamic indications would also likely influence the physical actions of the performer, especially if
performed on percussion with a roll, as is the most obvious solution. [82] A composer, such as
Tenney, who is familiar with the mechanics of instrumental performance and the history of
performance practice as it relates to notation, would be able to make such decisions in a
purposeful way. For instance, indicating a whistle-tone on a flute in the low register with a soft
dynamic on staff notation may well produce sounds which do not reflect the pitch indicated on the
page. While having a similar appearance to a notation which would usually call for sound
production, such a notation may instead be for an action. Similarly,

> "In a late [Feldman] work, typically, a single *ppp* at the beginning will apply to the entire
> piece. None of this of course means that every sound will have the same amplitude – far
> from it. The dynamic constraint applies mostly to the way in which the sound is played, but
> cannot really apply to volume as experienced." [83]

These grey areas, rather than weakening the importance of these definitions, makes the

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82 This is by no means the only way that the piece is performed. The performance I took part in of the piece with the
    University of Huddersfield Electric Guitar Orchestra was one of these instances. The notation – as may happen with
    many scores – took on a new meaning when applied to ensemble playing.
83 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham,
    UK: Ashgate (2009), p.69

understanding of them more important. When composing and making a score, these things must be considered. A composer may choose to work in these areas *in between* what is already known or understood; doing so with purpose is a sort of exploration not only for the composer and the body of experimental music, but an exploration for the performer as well.

Of all of the topics I have laid out, it is this last one – what scores ask of performers – that is of most importance, because this gets to the nature of what a piece is. Is the piece sounds to be made, actions to be carried out, or the unique result of a personal encounter? Without a clear understanding of this, the score may well not lead one to the piece through performance.

2.5: Physical Objects: How the Above are Related in Practice

All of the ideas I have discussed above are abstractions. They are abstracted from the body of work which makes up "experimental music" where they are put into practice. When put into practice, the physical body of the score is involved. A composer must resolve these things; working with the page(s) when creating a score and placing notation on it to bring about the distinct piece which the score is related to. About John Cage's *Winter Music*, Michael Pisaro observed, "Everything, it seemed, was designed for the particular piece," and this is, in some ways the case, as

> "Cage had created the score by making points where there were imperfections on the paper he was using. These were turned into notes and the collections of points were aligned to staves and clefs to give the points relative pitch heights. The singular visual appearance grew out of direct contact with the page."[84]

George Brecht's *Symphony*, from the collection *Water Yam*, further exemplifies this relationship between notation and score as physical object. On a small card, the notation consists of the title and a circular hole in the page.

fig. 29:

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84 Ibid., p.27

The relationship between the physical score and the notation need not be as drastic as these two examples, but may be brought about by purely practical considerations. These considerations may in turn influence one another and further influence composition.

For instance, a score calling for a set of rules or a process which needs to be remembered/internalised by the performer will be more likely to function effectively if all of the notation is contained on one page. This works in two ways: for one, the conciseness of form seems to mirror a conciseness of conception, and there is also the fact that memory must play a role, and fewer things may be remembered more easily. [85]

Even when a piece may be made up of multiple pages, the page may be a useful structural unit. This serves a practical purpose in John Cage's "Variations" pieces, as the different pages are to be treated differently by the performer. The page may also be used as a structural unit in scores with conventional notations and types of interaction, as in Morton Feldman's *Crippled Symmetry* and many of Antoine Beuger's pieces, such as *three drops of rain/east wind/ocean*.

How one reads from a page is also tied into what one reads on a page. For instance, when a score needs to be read from, the notation needs to be of a size that it may be clearly legible within the performing situation. Page turns also have to be taken into account when a score is to be read from, and can even be used as elements in guiding the performer's interaction with the score, as in some of Tom Johnson's *Private Pieces*. As Cornelius Cardew writes about "time-space" notation, "[...] the eye can travel along it at a constant or fluctuating pace (depending on the instance)." [86] For this to work, both the size of notation, and its placement on a page (it cannot effectively cross pages) are important considerations. In some cases, page turns may not be possible. "It is important in all these cases [Earle Brown's, *December, 1952* and Christian Wolff's, *Edges*] to be able to see everything at once for the whole duration of the performance." [87] In these cases, when it is also important to read from the notation during performance, a larger page size may be needed. Likewise, as with George Brecht's *Water Yam* pieces, sometimes a smaller page may be best suited to the work.

If a page is to be written on by a performer, space must be given to do this, as Cardew does with both *Autumn '60* and *Treatise*. However, even when such production is not demanded or implied with the score, a composer may ask "will a performer possibly write on this score?" and provide appropriate space. These considerations need not only be made to avoid problems in moving the work into performance, but may also be utilised to influence score and notation interaction within a specific way; a segment of staff notation that is too small to read may demand memorisation; spreading notation out between several pages may influence pacing; etc. These

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85 When I studied with James Tenney, he commented on some sketches I'd brought to him for a piece, "This is great! You could fit all of this on one page." I'm afraid it wasn't a commentary on the quality of the piece, but a very important lesson in craft.

86 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.5

87 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.43

considerations may also be made when combining different notations or types of interaction within the same score.

I have found that it is very useful to place what may seem to be "instructions" or "rules" on the same page as other notation – this linking of them physically with other notations may make a performer link them conceptually (and it certainly does away with a claim of losing an "instructions" sheet). Controlling what is seen and when can have a positive effect. In Christian Wolff's *For Pianist*, he labels sets of pitches as a, b, c, d, e, and g, but no f. This is done to avoid confusion with the use of "f" to indicate *forte*; an illustration of the fact that while certain types of scores or notation are being used, the existence of the others should be kept in mind by the composer because they will likely be in the mind of the performer.

What type of notation is used, what it calls for, and how the score is to be interacted with may also be controlled on the page. The percussion part to G. Douglas Barrett's *Derivation X*, like Christian Wolff's *Stones*, calls for both the production of sounds and physical actions to be carried out by performers. By placing these instructions in the same type of notation (in both cases, text) within the same space more easily allows them to function together within the same piece. In Wolff's case these are placed in a short text score which a player will not directly interact with, while in Barrett's the layout is done in a very clear fashion to allow performers to work from the score in performance.

fig. 30: a excerpt from the percussion part of G. Douglas Barrett's Derivation X

Dyn.	Dur.	Time	Description
ppp	3-5 secs.	0:02	5 wood sounds
	< 1	0:11	wood on metal
		0:26	wood on metal
	1-2	0:28	4 wood sounds
	< 1	0:29	struck metallic sound
pp		0:37	rustled paper
ppp	3-5	0:39	6 wood on wood sounds
	< 1	0:40	rustled paper
		0:54	2 low percussive sounds
	3-5	1:06	shuffling, noisy sound; a few seconds

In this writing, I have gone from the "idea" of a piece to how it is conveyed by a composer to a performer in myriad possible abstract and concrete ways. At this point, I feel that the basics of scores and notation have been covered, and the next step is to move on in the following chapter to the specifics of how one may convey these things to performers, and for what purpose in what instance.

2.6: Appendix to Chapter Two

It is important for me, as a composer, to have a systematic understanding of scores and notation for two reasons. The one which is most widely considered is the practical: determining how performers may deal with the work I present them, and how can I best prepare these materials for these uses. Breaking works down into categories is useful here, as many considerations I will have to make in my practice don't have to be made on a work-by-work instance, but can be made based on learnt practice from prior works. The second, however, is likely more relevant to this text: the relationship that the identity of a piece may have to scoring and notation. In some cases, the identity of a piece may be contingent on these factors, but it is more likely that a piece's identity will be related to physicality of performance or a performance dynamic, and the chosen type of score and notation – though not intrinsically tied to the identity of a piece as an abstract entity – will have an impact on how well this may be communicated to a performer and therefore demonstrated in performance.

The need for a score to be read from in performance can be important to the conception of a piece. When looking at the source text to *BARACK - - KILLED (CAYLEE)!!* I began to read it as a notation. Rather than describe to others at length how this reading could be done, I thought it better to use a form a notation which would make it more clear that the score is to be read from in performance, as the reading of the text along with notation while performing was important to me while conceiving the piece. Similarly, with *Seven Movements for String Quartet*, I wanted the score to be read from in performance, as this was one way to tie the piece back to the John Dowland piece which I used as a source.

While it may be possible for a performer to make supplementary material to a composer's score to read from in performance, to make this a qualification in a score is rare within my portfolio. However, when doing so, I want it to also be important to the identity of a piece, as is the case with *not*. Apart from such scenarios, I try to avoid making scores of this sort, as this is work which I rarely enjoy as a performer.

Performance is often a reason to make a score which not only does not require secondary production, but which is also not to be read from in performance. As it was important in the

conception of *Beauty and Industry* that anyone be able to perform it, it was also important to me that the score not give preference to any one performance practice which another sort of notation may be associated with. Likewise, as *bits of metal in a jar* was conceived of through performance, I thought it important that the score not be a crutch in performance, but that it make it clear that the physical act of performing the piece is of primary importance.

While there are grey areas in between these types of score, especially as performers may see them, conceiving of scores as such is important to my practice both when composing and when engaged with the craft/work side of being a composer.

As with types of score, I categorise notation into types for practical purposes in my own work. The first of these types is what is most likely to be thought of as "notation." By this, I just mean that there is a system used for notating a piece which could also be used to notate another piece. This isn't necessarily staff notation, but, in my work, often involves the use or adaptation of staff notation. This is clearly demonstrated in the use of staff and bar-lines in *BARACK - - KILLED (CAYLEE)!!*. By describing this as a system, I mean that how the piece is notated is separate from the singular identity of the notated piece. In this case, I think it's clear that the notation could be used with any other text or form, with all of the other elements of the notation in the score remaining the same. Similarly, with *Seven Movements for String Quartet*, I developed the exact notation used from staff notation for that particular piece, but there is nothing about the notation as a system which is crucial to the concept of the piece.

While both of those pieces use notations which I developed for those scores, they are not what I characterise as "unique" notations, as they are systems for notation separate from the associated piece. My piece *wyoming snow* does use what I characterise as unique notation. While the elements it uses are visually similar, and derived from other notations, it is not intended to function as an abstract system, as its interpretation is up to the performer(s). This is a unique notation, not only because I would not use it again, but that I think I *could not* use it again in another score. While the exact layout of the notation was partially determined by chance, using it again would be a sort of repetition. That is, a piece using this notation would already be doing what another piece does, in effect simply being a different version of *wyoming snow* as it could have been if the chance procedures had produced different results.

The bulk of the found/appropriated notation that I use is text. Both *not* and *Beauty and Industry* both rely solely on text, employing it essentially as prose. The text works as notation in these scores as it would in other text; the functions of the words are the same, and their placement on the score moves them into the realm of notation.

While there has historically been movement between these types of notation (the use of certain text as notation apart from usual language being most prominent; *piano*, *forte*, etc.), what is important to me is to know exactly how I'm employing these types of notation and why. For

instance, the use of exclamation points in the notation of *BARACK - - KILLED (CAYLEE)!!* come from text. I would place them as the first type of notation, as they are intended to function purely as notation; they have a use which is distinct from their use in text and could be used as such in another piece. That said, I used them in the notation, as they came from the source text, which I read as notation, though I would have used something else to indicate hand claps if I had thought it would be more clear in function.

fig. 31: excerpt from **BARACK - - KILLED (CAYLEE) !!**
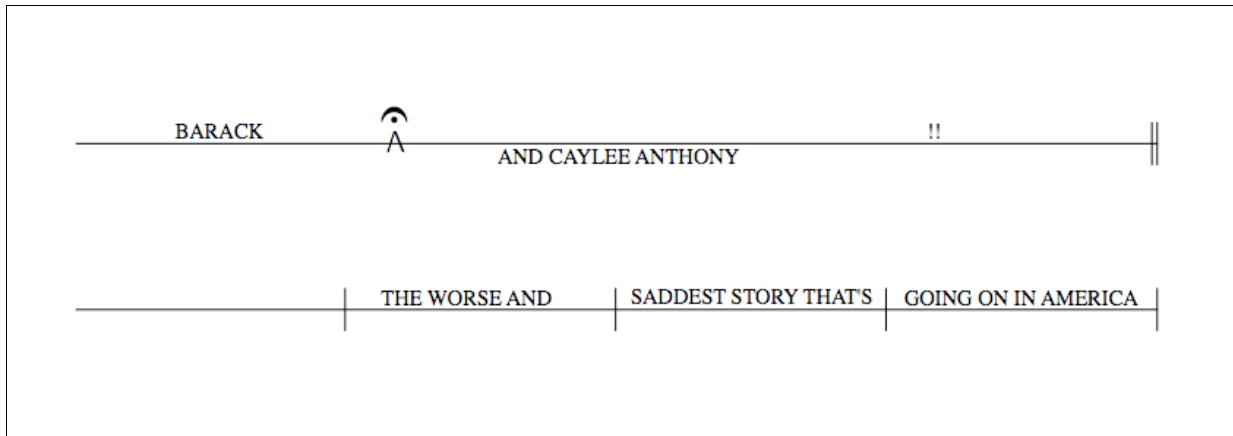
fig. 32: opening bars of **Seven Movements for String Quartet**

What scores and notation ask of performers is both the most important thing for me to determine when making a score and also the most malleable. This is because determining how a performer will respond to a score – dictating that response – is at the heart of players getting to the identity of a piece in performance. The need for malleability comes from the unique nature of each piece and what about it needs to be conveyed to performers. Nonetheless, having a developed organisational framework of types which can also be applied to the work of others is useful for understanding not only the practical aspects of score preparation, but also the nature of the pieces the scores pertain to.

Of my scores which call for sounds, *Seven Movements for String Quartet* is the most explicit, going so far as to state, "The quartet should favour a unified sound and timbre over the distinction of individual parts." However, even without such instruction, it is clear to me that the other notation is calling for sounds. While the exact pitch used by a player is always free within a range, it is a sounding event that is called for. This is made further clear by the fact that there are many positions on the instruments where these sounds could be made. This is distinct from a similar notation which, if used on an instrument such as vibraphone where each pitch has one physical location, it could as likely be action – or a range of actions – which is called for. Certainly this is a bit of a grey area, as the possible actions for the string players must also be derived from a set, the relationship between this limited infinite set in comparison to the notation makes it clear to me that the sound is the focus.

It is often more clear when a score is of the sort calling for actions. *kathryn of birmingham*, for harp, is such an example from my portfolio. While the acknowledgement of possible sounding is present by way of reference to amplification, the bulk of the notation relates to the manipulation of physical materials. Likewise, with *bits of metal in a jar*, it is only physical actions which are referenced, in this case, completely separate from any sounding result. It was of prime importance to me that the score for *27 Events for Clarinetist* prescribe actions, as my conception of the piece was dependent not only on certain actions, but the personal physicality of Pat Allison, the performer for whom it was composed.

Those scores which call for a production or situation only possible through interaction with the score (with the first two types of score, including all of the pieces mentioned above, the pieces could be learned without any interaction with the score) are both the most clear to me as a composer and the most rare. This is in part because so much of my conception of a piece comes about prior to any work done with its notation and score. This was not the case with *wyoming snow*, which in my mind exists first as the score, with the piece lying in the space between this score and the performer. This is in contrast to a piece such as *not*. In that case, while what happens in any one performance is completely up to the performer, the identity of the piece could be easily conveyed without reference to the score.

fidelity... is a curious case when discussing these types, as it involves aspects of all three.

The reading of sounding pitch from staff notation is clear, but as it is for piano, the staff notation also relates to physical action. Despite this, to try to convey the identity of the piece without the score would be to describe the score, and not the piece, which is contingent on one's reading of the score.

It is important to note that these categories I have laid out are not types of composition, but ways of categorising the practical aspects of preparing scores to compositions for presentation to performers. Having this categorical understanding of that work is important for me in making the process transparent for myself. It is a part of a working method, and while an important part of my working method, it is only a rough part. Once determinations have been made about types of score and notation, all of the detailed work of choosing exactly how to employ the notation is still to be carried out, as is the physical layout of the score. For instance, once the type of notation and score to use for *Seven Movements for String Quartet* was determined, the specifics still had to be worked out. While rhythms could maintain their same relationships and look more modern by being halved,[88] I chose to keep many of the same elements of Dowland's rhythmic notation. One departure I made from this was to break the notation of durations at the bar, though I eschewed regular bar-lines in favour of dotted lines. Though these type of specifics do not exist when using text notation, the same sort of decisions must be made. It is not uncommon for me to go through dozens of rewrites of text notation, both in terms of specific language used, as well as the form of the text on the page, and the relationship between this form and the physical size of the page.

The bulk of my scores are designed to be distributed as pdf's. As this is the case, it is important that some variation be acceptable in the final physical appearance of the score, as the scores are likely to be printed out on both A4 and letter sized paper, even if the score is laid-out to fit best on A5, for instance. While this takes a certain amount of planning in itself, it is not to say that I don't give consideration to the physical score once printed out; when I am producing physical scores myself, I put great care into this aspect and plan for it when laying out scores. For my *Seven Movements for String Quartet*, I felt it important that each movement be laid out across two pages, so that all players could read from a score with no page-turns required during movements. When producing bound copies of this score, I have arranged the pages so that the first page which gives "instructions" can be folded out so as to be visible to the player despite what movement the rest of the pages are turned to. This is to say that while the scores may be formatted to be distributed as pdf's, I do consider what the optimal layout would be in printed form, and provide this to players when possible.

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88 This is what Peter Warlock did for his 1927 arrangement of Dowland's *Lachrimae*

Chapter Three

3: Performers and Performance

In the case of experimental music, I would argue that performance is of equal or greater importance to notation. "The performance as a moment where people meet and where all incidences may coincide, where the possible may become the real."[89] While I posit, as outlined in the previous chapter, that a piece of music exists as a real thing prior to performance, it is through performance that the discovery of the relationship between the piece and the score is made. The possibility of the score bringing about the piece becomes a reality in the moment of performance. As Christian Wolff has stated,

> "A composition (a score) is only material for performance: it must make possible the freedom and dignity of the performers; it should allow at any moment surprise, for all concerned players, composers, and listeners: it should allow both concentration, precision in detail, and release, or collapse, virtuosity and doing things in the ordinary way."[90]

Performance itself may, in fact, be crucial to the experimental process in discovering a piece's unique identity, or for initiating unforeseen events. Antoine Beuger has discussed the former in regards to his *landscapes of absence* series, which was originally scored for one performer both speaking and playing an instrument: "After I performed the first piece I discovered that it should be done by two performers, that it really is music for two."[91] Beuger subsequently changed the required number of performers in the score, but without that performance he would not have known that this was a requirement of the piece and therefore the score. While this type of situation does not necessarily relate to the composer's role in making a score, performers and performances may have such an influence on composition and notation.

3.1: Performers as Audience

Craig Shepard has stated that, when performing, his goal as an artist is "to extend the invitation. The invitation is there for anyone who wants to listen, regardless of a listener's

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89 Manfred Werder qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.355
90 Wolff, Christian, *Cues: Writings and Conversations*, Cologne: Music Texte (1998), p.86
91 Antoine Beuger qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.239

knowledge, education, or musical sophistication."[92] I also see this as my role as an artist, but from a composer's point of view. In this sense, my audience is not made up of listeners, but of performers: those who receive my scores. With this as my primary consideration, I must ask myself who makes up that audience, what can they do (and want to do) as performers, and how I can best make pieces, scores, and notations to engage them. If the score is my invitation, who am I inviting, what am I inviting this audience to, and how am I inviting them?

When considering one's audience, notation is an important factor. Different performers will have different abilities with various notations and working methods. What may be best with one group of players may not be the best solution for another group. When faced with this, I ask myself a few questions to make a determination: who is the most likely audience? Even if there are several notational possibilities, I will gear my notation to the most likely audience. If there seems to be no most likely audience, other considerations arise: what is the most accessible/universal possibility? If I know my specific audience – a piece is being written for a known performer or ensemble – what would work best for them? However, what would work best for them may not always be the best for *the piece*.[93] I like for pieces to be open to many different interpreters and would rather not have a score which works well for one player but would be largely useless for most other players who may otherwise want to approach the piece.

In many cases, staff notation has advantages over other types of notation. As Alvin Lucier notes,

> "[traditionally trained] Players learn conventional notation, in school, they're very
> comfortable with it, and if you can write music that's as close to what they have learned
> then it makes performance easier."[94]

In this sense, the invitation is open to a large number of people. Whilst it does exclude some who aren't familiar with such notation (though the basics of it can be easily learned), there are other considerations when using such notation in a piece of experimental music even with those who are familiar with it.

> "[Standard] Musical notation was never a diagram of the experiences we are promised. It
> was a diagram of the obligations of the delegates and a Restatement of our aspirations for

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92 Shepard, Craig, *On Foot*, Zürich: Edition Howeg (2008), p.25
93 "I'd rather think that a certain idea or layout for a composition proposes a certain ideal form of the score." - Manfred Werder qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.355
94 Alvin Lucier qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.307

and identification with the design technology of 1) the instruments and 2) the social organization (ensemble.) Otherwise, everybody would read music. Unless we want to preserve the instruments or the social organization, we have no use for notation." [95]

This may be advantageous in some instances; using staff notation will bring about not only the notated pitches or rhythms, but also a wealth of other musical factors that have come to be associated with such notation in performance.

> *"*The traditional role of notation was to fix certain elements of performance while leaving others to the 'musicianship' passed on to a player by his teachers and absorbed from his environment. Many of the things done by the musician, and absolutely essential to good performance, were not to be found in the score: deviation from the metric values, differentiation in timbre and intonation, types of pedalling and tonguing and sliding, as well as aspects of the sort described by a vague word or two – 'con fuoco,' 'lebhaft' – words so vague they had meaning only to a player culturally conditioned to them." [96]

If a composer wishes to do away with those things (such as instruments and instrumental techniques and the social organisation of the performing situation) associated with such performance, staff notation may not be the best method of notation. So, Guisseppe Chiari's directive that in his pieces scored in this manner, "Those and only those are the notes. No ornament is allowed. On the contrary, tempos are free," [97] may not be realistically possible. In this regard, another comment from Alvin Lucier is apt:

> "The problem with playing experimental music now is that players will often revert to those techniques they already know. They think they're adding to the work by doing something that they have experienced from other music. Percussionists who are used to changing mallets, for reasons of contrast, think that's a virtue whereas in most of my pieces contrast is not an issue at all, there's no reason for it." [98]

Craig Shepard does away with this problem, at least in part, by placing this simple performance instruction ahead of the pieces in his collection, *On Foot*: "Style is plain and clear. There is no need to add to what is indicated. Simply play what is there with a beautiful tone." [99]

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95 Robert Ashley qtd. in Byron, Michael, ed., *Pieces : A Second Anthology*, Ontario: Michael Byron (1976), p.117
96 Behrman, David, 'What Indeterminate Notation Determines', *Perspectives of New Music*, Vol. 3, No. 2 (Spring – Summer, 1965), pp. 58-73, p.58
97 Chiari, Guiseppe, *[untitled]* (1971): http://www.strano.net/town/music/chiaribi.htm (accessed January 17th, 2010)
98 Alvin Lucier qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.308
99 Shepard, Craig, *On Foot*, Zürich: Edition Howeg (2008), p.99

For players accustomed to such notations, working from other types was a problem for some performances of Cornelius Cardew's *Autumn '60* directed by Mauricio Kagel. To accommodate them, a traditionally notated score and parts were written out. The aspect of the number of performers being open was accommodated by "adding parts to the collection as and when they were required for concerts with different instruments."[100] Doing so, however, was problematic. As the composer noted,

> "This runs counter to the original idea, and I have noticed in these performances that the players have regained as often as not their usual attitude to contemporary music, that is, 'we play it, but don't blame us for what it sounds like', which is exactly the attitude which these pieces try to circumvent."[101]

This is exactly the problem that Robert Ashley raises about such notation; it reinforces a social working method which does not work for most experimental music, and *Autumn '60* in particular. In the way the piece was originally meant to be performed,

> "It is not possible for a conductor to distribute the parts for *Autumn 60* among orchestral musicians and then get up on the rostrum and conduct the piece. *The very fact that the parts and the score are identical implies that a higher degree of interest and involvement is demanded of the musicians.* They have to acquaint themselves with the musical principles underlying the work; they have to investigate the range of possibilities opened up by the score. And finally, they have to accept the responsibility for the part they play, for their musical contribution to the piece. *Nobody can be involved with this music in a merely professional capacity.*"[102]

So, changing the notation used may not work for every audience of performers if part of how they want to work is tied in with specific social structures. These structures are often hierarchical, which is something that I want to work against in a composer/performer relationship. This relates in part to the instruments players may be using and the requirements involved in becoming proficient with those instruments. Cornelius Cardew has described this very situation:

> "[...] the intention is that the player should respond to the notation. He should not interpret in a particular way (e.g. how he imagines the composer intended) but should be engaged in

100 Tilbury, John, *Cornelius Cardew: A Life Unfinished*, Matching Tye, UK: Copula (2008), p.108
101 Cornelius Cardew qtd. in Tilbury, John, *Cornelius Cardew: A Life Unfinished*, Matching Tye, UK: Copula (2008), p.109
102 Ibid., p.105, emphasis mine

the act of interpretation. (NOTE: what I really meant to say, was that the piece could be played correctly by a pianist having no previous acquaintance with western music. But such methods belong to logic. The animal does not exist anyway; in getting acquainted with the piano you get acquainted with western music.)" [103]

This seems to suggest that the best way to do away with some of trappings of traditional music would be to score pieces for non-traditional instruments or non-instruments, as Christian Wolff has done in pieces such as *Stones* and *Sticks* (for stones and sticks, respectively), or Michael Pisaro with some of his works, such as *ricefall* (for rice) and *everyday* (various objects). By doing so they also do away with the traditional notation, which as Robert Ashley states, "can only describe musical ideas derived from instruments designed (if not made!) two hundred years ago. Or analogs of those instruments." [104] On the other hand, if one wishes to maintain some of these old ideas when using unorthodox instruments, elements of traditional notation may be very useful, such as those employed by John Cage in his *Imaginary Landscape No. 4* for radios, which relies on a traditional ensemble performance structure.

If we accept Cornelius Cardew's statement that "nobody can be involved with this music in a merely professional capacity," avoiding the "professional" musician altogether may be the best way to consider the audience for experimental scores. Alvin Lucier has commented that "Much of Christian [Wolff]'s early work is about uncertainty and professional players don't want to sound uncertain." [105] Thankfully, this is only a generalisation. There are some players who don't mind sounding uncertain. Wolff, himself a frequent performer of his own work and that of others, has said, "I find it interesting to put myself in a position where I don't know what's going to happen next." [106] Though a virtuoso himself, Rhodri Davies states that,

"I'm concerned with exploring and offering alternatives to dominant modes of making music or sound: music that is used purely to make money, for competition, self-promotion, virtuosity or entertainment." [107]

Davies, however, is in a minority among the technical virtuosic set.

"Mr. Arditti, of string quartet fame, complained to Alvin Lucier, in the presence of a large number of people, that he didn't like to play Alvin's String Quartet, because there was very

103 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.14
104 Robert Ashley qtd. in Byron, Michael, ed., *Pieces : A Second Anthology*, Ontario: Michael Byron (1976), p.118
105 Alvin Lucier qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.308
106 Wolff, Christian, lecture at Ostrava New Music Days, 2009
107 Rhodri Davies qtd. in Shoemaker, Bill, 'What's New? The PoD Roundtable', *Point of Departure*, issue 36 (September, 2010): http://www.pointofdeparture.org/PoD28/PoD28WhatsNew.html (accessed September 9th, 2011)

little bow movement, which lack of bow movement made his arm tired. To which Alvin replied, 'Why don't you play it with the other arm?'"[108]

While amusing, this anecdote also highlights a difference between the experimental and much of the rest of the avant garde in terms of the relationship between composer and performer in regards to playing technique. While composers of many types of music may demand new playing techniques and develop notations (largely the equivalent of existing notations) for them (how to make sounds, or specific actions to make [Sciarrino, Lachenmann, etc.]) – an extension of an existing virtuosic lexicon – in an experimental music situation, a performer may *have to* develop new methods of playing to meet demands of the piece in performance. This is part of the experimental event-based process; something new comes not from the imagination, but as something unforeseeable, resultant from an event which demands exploration. In such a case, the traditional virtuoso will likely have no advantage over another player.

Some performers will actively work to abandon the traditional techniques because of the influence they have on music making in general. This is something that has been more common in improvised music than performances of composed music.

"How could I abandon the technique? Lay the guitar flat! All that it's doing is angling the body [of the guitar] from facing outwards to facing upwards - the strings remain horizontal, the strings are the same."[109]

This doesn't mean that this approach to performance is any better suited to improvised music, but that the relationship between performance of composed and improvised music may well be considered by an experimental composer.

"I'm interested in composition that takes me to areas that I wouldn't necessarily arrive at if I were left to my own devices. I'm not interested in pieces that get me to improvise freely because I do that already. […] I also think a composition should have a certain identity and not borrow too heavily from my own vocabulary and improvising palette."[110]

To engage such performers, the best approach is not to see how they have approached changes in

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108 Ashley, Robert, "The Future of Music" *Edited by Karen Reynold* - Copyright © 2000 Robert Ashley and the Composition Area, Department of Music, the University of California, San Diego (2000) http://www.rogerreynolds.com/future_of_music/texts/ashley/ashley.html   (accessed 29/01/10)
109 Rowe, Keith, 'Interview by Dan Warburton', *Paris Transatlantic Magazine* (January, 2001): http://www.parisTransatlantic.com/magazine/interviews/rowe.html   (accessed September 9th, 2011)
110 Rhodri Davies qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.257

technique and then working to accommodate that change, but by making and notating pieces in such a way that these techniques *could* be employed, and ideally where new unforeseen alterations of technique may be made. Michael Pisaro notes that, "The connection of this trend [of graphic scores] in notation to improvisation is deep and lasting [...]," [111] and this is certainly one approach a composer may use – the type of piece which exists as a result of an encounter between performer and score, such as *Treatise* and *(night)*.

However, the majority of pieces, even in the experimental realm, require a different type of score. Some notations are more likely to be useful than others within these scores. Text notation may be especially useful for engaging performers and bringing about new situations. Michael Pisaro has made the same observation:

> "My conviction is that, far from just being a form of writing music that takes place outside the symbolic territory of traditional Western music, this kind of writing also leads to new ways of making sound and opens up the ways we have of relating to music – and to people." [112]

By employing text notation, the relationship between sign and sound or motion is done away with. While this may do away with a certain immediacy of possible performance, it in turn moves the focus towards the musical situation. This may be the case both for pieces for specific instruments and those which are completely open in that regard. In either case, text creates an openness and general possibility for newness exists in a way that it couldn't with other notations, as it is not reliant on a social structure or performance tradition related to notation or instrument.

Another aspect of text notation in relation to audience considerations has already implicitly been mentioned by Robert Ashley. If we turn around his assertion that standard notation is a restatement of the design technology and social organisation of older music, and that if it wasn't, everybody would read music, we can consider what everyone can read: text.

> "Another feature of these prose pieces is that nearly anyone can do them. The entry level, in terms of the amount of previous musical training or technique one might need to perform it, is, compared to most classical music, quite low. It is usually possible to use sound sources that are available to just about anyone: the voice, everyday objects or some kind of simple instrument. The score also makes it possible, in most cases, to produce music right away." [113]

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111 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.47
112 Ibid., p.48
113 Ibid., p.51

Of course, for those schooled with existing training and technique, the notation itself doesn't do away with the problem which Cardew mentioned about how in getting acquainted with an instrument, one gets acquainted with the traditions surrounding that instrument. What it may do is make the trappings of those associations less apparent, giving license to move away from them. Furthermore, if some of those involved in a performance of a text score do not have these trappings, it would be impossible for them, and in turn the ensemble as a whole, to fall back on them; all will be, in many regards, on the same footing. Acknowledgement of this can be very useful for composers.

Apart from notation, the audience for a piece may be dictated by what the score requires them to do. Just because a piece is notated with text doesn't assure that it will be performable by anyone. If that text specifies advanced knowledge of a given instrument, it is limited to those with that knowledge, though specific musical background related to performance practice may still be open. Alternately, a score may be open towards instrumentation but require musical abilities that non-musicians, or not all musicians, may have. These could be indications for responding in certain musical ways based on hearing (the playing of certain intervals, as in parts of Christian Wolff's, *Burdocks*), or knowledge of tuning or rhythmic systems (for instance, in James Tenney's *Critical Band*). When making a score involving different types of notation these considerations are of prime importance due to the relationships inherent or possible between types of notation and existing performance practices, and how both correspond to the demands of the score.

This doing required by the score isn't limited only to what will be done in performance, but also before performing.

> "[...]players are no longer shocked by the prospect of tackling a new set of rules and symbols every time they approach a new composition. Learning a new piece can be like learning a new game or a new grammar, and first rehearsals are often taken up by discussions about the rules-about "how" to play rather than "how well" (which must be put off until later)."[114]

These considerations are not important only for the amount of time that players are likely to have in rehearsal, but also for how players may be required to work together. Some decisions may be made by individual players, while others will have to be collectively agreed upon. Having players make individual decisions may save time, but may not be what best serves the piece. This social aspect of performing may not be directly observable in performance, but still fundamental to the

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114 Behrman, David, 'What Indeterminate Notation Determines', *Perspectives of New Music*, Vol. 3, No. 2 (Spring – Summer, 1965), pp. 58-73, p.58

performance of the piece. Chicago Symphony Orchestra bassist Michael Hovnanian describes what a change in the social organisation of an orchestra may result in.

> "The really interesting experience was not performing, but rehearsing without conductor. Many of us string players are so conditioned to our place in the chain of command that when the shackles finally come off, it feels very odd indeed. I imagine any group situation where the normally rigid structure is suddenly removed ends up with the same set of issues. The majority, having strongly conditioned inhibitions, take no action. A few brave souls participate in decision making. Those lacking a healthy amount of inhibitions seize the opportunity for inappropriate displays of personal aggrandizement. […] The tendencies toward centralization and authoritarianism seem to be deeply ingrained, perhaps inevitable byproducts of our work."[115]

Having a conductor or leader is not the only way to ensure that players work together in bringing a piece into being, but with some players, and associated groups and their traditions, it may be best at times. In the majority of my work, and that of composers whose work I enjoy performing, this is certainly not the case. I feel that performers should have equal responsibility and equal opportunity within a piece. This doesn't mean having all players always playing the same sorts of material, but may relate to their function in the ensemble. There are two ways a piece may work towards this end. One is a situation where removing one player from the group is not possible without fundamentally altering the performance situation, [116] and another where removing or adding any one player is no better or worse than removing or adding any other. [117]

This is not to say that the conductor has no role in experimental music. A conductor may act not as decision-maker or hierarchical power figure, but as a simple facilitator, performing a function so that others may more easily get on with their individual or coordinated actions related to the score. One way I have worked as a conductor is to simply be responsible for keeping track of structural elements within a score and indicating these points to an ensemble numerically with fingers and/or by marking the beginnings or endings of structural sections with down-beats. Such actions give the conductor no control, but allow performers to focus more fully on their own individual tasks. This may also eliminate confusion within an ensemble – the conductor as benign authority. Another, more common, activity for a conductor in experimental music is to act as a sort of live clock, as in John Cage's *Concert for Piano and Orchestra*. Though, in that specific case a conductor has a certain amount of power to influence what other players are doing, which is an indicated possibility of the score (similar in some ways to the conductor's role in *Autumn '60*).

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115 Hovnanian, Michael, 'Friday, April 23, 2010', *CSO Bass Blog* (2010): http://csobassblog.blogspot.com (accessed May, 18, 2010)
116 Christian Wolff's *For 1, 2, or 3 People* and *Changing the System* are examples
117 Cardew's *Autumn '60*, and Tenney's *Swell Piece* are examples

Gerhard Staebler employed the more neutral method in performances by the Edges Ensemble of his own *Hart auf Hart* and Kunsu Shim's *happy for no reason,* simply functioning as a large clock would have.

In such neutral instances a conductor may be done away with entirely by using an actual clock.

"The use of the clock or of the stopwatch has become commonplace in recent work. It allows one to simply say when an action or silence begins and when it ends or to give a duration, dispensing altogether with the bar as a unit of measure for longer durations." [118]

This way of working is used explicitly in many pieces, such as John Cage's "number" pieces and many of Pisaro's pieces, such as *So little to do... .* Not explicitly calling for the use of a clock need not be a deterrent to its use. In a 2010 performance of Manfred Werder's *9 ausführende*, players in the Edges Ensemble used stop-watches to occasionally get a reference pulse to assure their never straying too far from the piece's prescribed tempo and beat structure. The ensemble used a clock in a far looser manner in 2009 performances of Christian Wolff pieces, including *Stones*, to ensure both that an amount of group together-ness would exist, and that the piece would fit within a program of a prescribed amount of time. In that case, a clock running on a laptop computer was employed, a technique also used by Quatour Bozzini in their performances of some of James Tenney's string quartets in the 2008 Huddersfield Contemporary Music Festival. Use of one clock, over individual stop-watches, also has the advantage of eliminating the possibility of stop-watches being out of sync when strict timing may be necessary. The use of a clock is in no way a recent phenomenon in the performance of experimental music. The following is noted in the score of Petr Kotik's *Kontrapunkt II*, published in 2007, but composed and first performed in 1963:

"The notation is proportional and is measured by the movements of a clock: the spaces on paper from left to right represent time as indicated by the second hand on a clock. Musica Viva Pragensis owned a large clock, which was placed in front of the ensemble instead of a conductor."[119]

The use of a clock, whether or not explicitly called for in a score, is an enduring element of experimental performance practice. It is the ultimate benign authority.

How performers relate to one another and a piece is not only conditioned by types of

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118 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.67

119 Kotik, Petr, *Kontrapunkt II*, New York: Srajer Publishers (2007) - written in 1963 and published, slightly revised, in 2007. Musica Viva Pragensis was Kotik's ensemble in Prague in the 1960's.

notation used and the social aspects of the rehearsal and performance processes. Elements forcing certain types of interaction may be built into a piece, requiring performers to work together in one way or another during performance. These ways of interacting need not be tied to any one type of notation and may be completely different from one composition to the next. One of these methods is the required listening by each member of the ensemble to every other member, such as Terry Riley's *In C*, where performers must remain within a certain number of cells of one another. Other methods may employ very specific cueings as in Christin Wolff's *For 1, 2, or 3 people*. Wolff labels these as "contingent processes". "The notion of experiment, contingent processes, matters because I think it represents an image and attitude which allow for the possibility of change (for the better)."[120] That is, these processes may act as catalysts for the type of changes in performance practice and performer relationships which are important for bringing about both newness in experimental music, and bringing personal dignity and responsibility to performers.

Having things un-fixed in performance allows for the possibility that what works better for one musician in a certain situation may not be best for another. Such possibilities may not be foreseen by the composer, but by establishing a contingent process, the composer makes these unforeseen relationships possible, opening the possibility for a new event to transpire. This practice in itself gives composers an opportunity to not simply compose sounds or actions, but situations.

> "Because the contingent music involved new notations, you could say that everyone, pros and amateurs, sometimes even non-musicians, started off from the same place, at the same level. What was required of everyone was a certain kind of musicality, inventiveness and general alertness."[121]

This openness has a direct impact on the audience for such a piece. While it may be open to anyone, a performance will only be possible by performers who actively engage with the material; taking no action – the situation Hovnanian described when an orchestra is let loose – is not possible, nor is a display of self-aggrandisement, for what each player does is conditioned by what other players are doing. There is freedom here, but it really is the freedom to work together in solidarity with others in ways which other music may not make possible, and certainly not make a requirement of. If such a situation is desired, it may be composed for and performers may purposefully seek it out.

"I was trying to make a music that could be performed under the circumstances of the time

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120 Christian Wolff qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.361
121 Ibid., p.363 – new notation is not a requirement for all music involving contingent processes, but is common. Regardless of the notation used, the way the performers interact with the score will be different from any fixed notational practice when a contingent process is required of them.

– for my work very limited performance opportunities, my own involvement in performances in spite of my quite limited playing skills, the involvement of others, usually non-professional, who were not virtuosos (some of course definitely were, like Frederic [Rzewski] and David Tudor)."[122]

While there now may be more virtuoso players, like Frederic Rzewski, who more easily grasp such experimental performance situations, this is not because of any institutionalisation of certain contingent processes codifying experimental music as a genre. Rather, it is the case that once accustomed to confrontations with the new, performers are less likely to be spending time ridding themselves of learned trappings of other, more codified, musics.

One thing that the vast majority of the music I have mentioned has in common is that there is no distinction between score and parts; all participants in a performance have the same material to work from. This does away with the hierarchical relationship between score and parts, but more importantly does away with questions of access; access to information, and in turn any special individual authority. Individual identity, purpose, and virtue come to the fore in the act of performance rather than before it. This makes the composer/performer relationship for everyone in the group much like that of the relationship between composer and performer in a composition for solo performer. It is a 1/1 relationship for each member of the ensemble, and also for the group collectively with the composer.

An audience for a composer that I haven't yet specifically addressed is the known audience; the given. I do not mean "trombone," or "string quartet," but specific people with their known preferences, techniques, histories, abilities, weaknesses, even peculiarities of their very instruments. Marcel Duchamp took this to an extreme with his *Musical Erratum*, assigning lines of music not to vocal registers, but specific people: Yvonne, Magdeleine, and Marcel. [123] Phill Niblock states that, "When I find people that I'm interested to work with and then I tend to make pieces with them because I know they're going to sort of work out."[124] That Niblock discusses making pieces not *for* but *with* people is an important distinction. The desire for the musical outcome of a performance of a composed piece of music to be an equal collaboration between composer and performer is a sentiment shared by myself and much the experimental community. Christian Wolff has made quite a clear statement to this effect:

"I'd like the performance to be as much an expression of the performers' sense of the music

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122 Ibid., p.360
123 Bryars, Gavin, 'Notes on Marcel Duchamp's Music', *Art and Experimental Music*, Studio International, Journal of Modern Art (November/December 1976)
124 Phill Niblock qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.314

as mine. I've always thought that's what's distinctive about music: even with the most elaborately detailed notation the music can't possibly ever be played exactly the same way twice (you only get exact repetition when you play a recording). I've taken that 'given', you could say and composed with it."[125]

What it means to compose for such a given is open to infinite possibilities, as evidenced by Wolff's substantial and diverse output. This is in large part because of the diverse audiences considered when composing and notating pieces. Considering a certain performer, their abilities, instruments, and instrumental techniques may make certain things possible that would not have been the case when considering a general audience. Likewise, by considering the possibility of a completely unforeseeable audience, new possibilities may emerge for performance through use of processes and notations which purposefully do away with any need for what already exists or is known by both composer and performer. Whether purposeful or not, self-selecting relationships emerge. Consideration for these existing and possible relationships by the composer should inform how s/he approaches not only composition but also the notation of those compositions when presenting them to an audience.

3.2: Portability

One element for consideration in relation to performance is portability.[126] This may influence the score and notation and is an important consideration when determining the identity of a composition. I am using the term "portability" purposefully in more than one sense – not only the idea of portability as relating to space and time relationships, but also the meaning more commonly used in reference to computing – how something may be ported from one platform to another across or between systems. This is something for performers to consider as well as composers to result in the best possible performance of a piece.

If we consider two examples from the last chapter, two different extremes of portability are presented. James Saunders's *#[unassigned]* pieces are eminently non-portable, having been composed for particular players with specific abilities, with given instruments, on known dates, and likely with known performance settings. In contrast, Manfred Werder's *stück 1998* may be played by any number of players, so long as each has an instrument capable of producing at least one pitch within the 4,000 pages of the score. Furthermore, the time and place of any one performance could not have been known when composing.

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125 Christian Wolff qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.362

126 For this concept of portability, I am indebted to the late, great Stephen "Lucky" Mosko who introduced some of these uses of the term to me during my time at CalArts from 2002-2005

3.2.1: Portability Between Audiences

This relates largely to the questions of audience that I outlined above; how portable is a piece between different audiences of potential players? One consideration here is not just the type of player, but the number of performers as well. While *stück 1998* can be played by any number of players, the same composer's *9 ausführende* requires nine players for any performance. All other elements are as portable as the former piece, and a further element is opened up; the sounds produced by the players are not constrained by pitch; any sounds, including non-pitched sounds may be used. This kind of openness for both the type and number of performers has become common in much experimental music.

> "[...] in our time there was no support. And I was not in music school, so I had no access to performers, so the whole issue of just getting the work performed; getting it out there was very difficult. And so I wrote pieces where the instrumentation was open, because I might, you know, happen to bump into a clarinettist, and a tuba player, and a guitar player - we could do something. I happen not to have a piece for that combination! But this is sort of practical, and that sort of historical kind of thing determined it. I mean, if I'd grown up surrounded by string quartets and stuff, ready to play anything I wanted, I'd probably have written a very different kind of music. And then I began to see the musical interest of that: making the kind of music that in fact is possible for odd combinations of instruments and so forth. You can have smaller groups where you can do this with a recorder consort, or you can do it with brass, you can do it with a combination of voices or flutes or whatever, you know, it's the same score."[127]

A piece may even be made to be portable between such ad-hoc ensembles.

> "That's the advantage of having these modular pieces, that you can drop sections. Again, within the modules I also run a gamut of things that I know will work and other things that may or not be do-able; and if they're not do-able, we'll not do it."[128]

When these considerations are made while composing, the effect this may have on the notation should also be considered. If something is written with pitches, is it or should it be transposable by octave or interval to accommodate different instruments? Should factors such as tempi and dynamics be specified, or may they vary by players' abilities and their instruments' physical constraints? Who does using one sort of notation over another rule out or include within

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127 Christian Wolff qtd. in Chase, S., Gresser, C. and Wolff, C., 'Ordinary Matters: Christian Wolff on His Recent Music', *Tempo*, Vol. 58, No.229 (Jul., 2004), pp. 19-27, p.22
128 Ibid., p.21

performance as a whole and collectively as an ensemble? What dictates the answers to these questions is the composer's understanding of what is needed to establish the piece's identity in performance.

3.2.2: Portability of Scores

The score – the container of this information – may also be viewed in terms of portability, both by the way in which performers interact with it as laid out in the previous chapter, and how it is physically presented. One prime question here is if a score is needed for performance. When the Cabaret Voltaire closed, Hugo Ball wrote that, "The libraries should be burned, and only the things that everyone knows by heart would survive."[129] It seems that Ball would be a strong advocate for scores and notation that would not be necessary in the performance situation and can be easily remembered or internalised. Composer/performer Sam Sfirri advocates this same approach, stating about pieces he enjoys that, "If you explain the piece, not even give them the score, they're going to get it."[130] Regarding not using a score in performance, Tom Johnson, remarks about his piece, *Galileo,*

> "Like *Nine Bells*, it's a head chart, because you can't look at the score and hit things at the same time. It's about logical sequences anyway; once you know what the circuit is you don't have to write it down. But eventually I did write it down, because sometimes two or three months go by between performances and I have to get ready to play it again."[131]

For Johnson, the score acts a memory aid between performances.

For a score to function as a memory aid, it must not be too large. If it contains too much information, the possibility of it functioning as a memory aid will be largely replaced by rote memorisation if it is not to be used in performance. This works best for scores for pieces which need not be memorised in total as they consist of a process or processes carried out by the performer(s). These are scores which could not be read from in performance, either because, like *Nine Bells*, there would be no way for the performer to read from them during a performance, or, like Christian Wolff's *Fits and Starts*, there is effectively nothing which a performer could read from in performance. Sam Sfirri equally has concerns about the size of his scores and those he performs; "one page is better – you can quote me on that if you want."[132] I agree for the most part,

129 Marcus, Greil, *Lipstick Traces : A Secret History of the Twentieth Century* , Cambridge, Massachusetts (USA): Harvard University Press (1989), p.205
130 Personal interview with the composer, August, 2009
131 Johnson, Tom, 'Interview with Dan Warburton', *Paris Transatlantic Magazine* (March, 2007): http://www.parisTransatlantic.com/magazine/interviews/johnson.html   (accessed September 9th, 2011)
132 Personal interview with the composer, August, 2009

the only exception being when attempting to include all of the needed information on one page would sacrifice clarity; by removing the possibility of dividing different information into clear units on the page, for instance, or making it impossible for a performer to add annotations to the score without obscuring other needed notation.

A similarly related concern is how the score is meant to exist as a physical body. Is a certain page size needed for the score to be properly reproduced (as with Cage's *Concert for Piano and Orchestra*)? Is a certain binding necessary (as in some of Tom Johnson's *Private Pieces*)? The greater the number of requirements to physically present the score as needed, the less portable it could be said to be. George Brecht "had the idea that scores, once the province of specialists, should now be published in newspapers."[133] Now that we are passing away from an age where newspapers are dominant carriers of information in favour of digital reproduction and distribution of information, this is how I prefer to distribute my scores. Having a score readily available as a pdf document means that anyone can read it on any computer and print it from any printer (providing they have the appropriate-sized paper or that re-scaling the image wouldn't harm interpretation of the score). This makes travelling with scores very easy.

3.2.3: Physical Portability

Instruments called for are certainly an important factor in portability. If a piece is scored for pipe-organ, there are limited spaces where that piece may be performed, especially if certain stops are called for which all organs may not have. Physically, it may be difficult to move some instruments, such as concert harp, so that could limit performance possibilities. Other instruments may be portable, but they may have a limited availability to performers; calling for alto trombone, viol, celesta, and contrabassoon may suit a piece well, but getting that group together, especially for repeat performances, would likely be difficult.

With instruments such as harps, clarinets, and trombones, a player of one is likely to be capable of playing several in the same family. Rhodri Davies remarks that, "I play different kinds of harps, and it's worth discussing them individually because they propose different challenges." [134] That is, a piece scored for one of these harps may not necessarily work on any of the other harps, but some pieces may. This could impact decisions made in both composition and notation. Davies, again: "to facilitate travel, I perform with my small lever harp. And of course this instrument imposes different restrictions to what the larger pedal harp would." [135] When composing a piece for such a player, each instrument's characteristics, abilities, and difficulties should be considered; will

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133 Robinson, Julia, *George Brecht – Events – A Heterospective*, Cologne: Walther König (2006), p.38
134 Rhodri Davies qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.253
135 Ibid.

the piece be portable between these instruments? Should this possibility or lack-there-of be mentioned in the score?. About the melodica, Christian Wolff has said, "This is my portable instrument. I'm sort of an indifferent keyboard player."[136] Wolff composes some pieces for melodica, but this indifference toward the instrument family means that a piece he performs on melodica one day could be performed on piano, harpsichord, or electric keyboard on another.

Fluxus performer and composer Tomas Schmit considers both the physical portability and the flexibility of a piece to be performed with various materials an attribute.

> "American Happenings were just as material-intensive as European Happenings. These guys weren't happy unless they could play around with 200 car tires or 2 tons of animal bones or some other sort of junk. Whereas for a Fluxus event, you hardly needed anything. The essentials could be packed into a small suitcase: a couple of darts, a toy flute, a few balloons, etc. Anything else you could ask for. You simply had to write a letter: Dear Addi, shall be arriving on Tuesday, get me a ladder, a piano, a power drill, and a big pot of paint. And whatever was delivered was used."[137]

Michael Winter, a composer quite different from Schmit, makes a similar comment all the same: "I think we should always strive for less stuff, because you know what you have to do with stuff? You have to move it and store it."[138] This isn't only the case for the physical stuff, but for the other "stuff" related to music as well.

3.2.4: Site

As stated in the previous section on audience, notation may implicitly dictate the site of performance. For instance, staff notation seems to indicate performance venues associated with that tradition. Alternately, a composer may indicate a certain type of environment, as James Tenney does with *In a Large, Open Space,* and Mark So does in many pieces, including *to bring in the night*, which is to be performed "in a room, perhaps open to the outdoors, near a major thoroughfare or similar."[139] The composer Peter Ablinger's series of pieces entitled *places* require very specific locations to be performed, each work being composed for its specific place of performance.[140] Without specifying a particular type of performance site, a composer may indicate

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136 Wolff, Christian, lecture at Ostrava New Music Days, 2009
137 Berghaus, G. and Schmit, T., 'Tomas Schmit: A Fluxus Farewell to Perfection: An Interview', *TDR (1988-)*, Vol. 38, No. 1 (Spring, 1994), pp. 79-97, p.88
138 In conversation with the composer, September, 2009
139 So, Mark, *to bring in the night*, self published (2007)
140 Further explanation and documentation available at Ablinger's web site: http://ablinger.mur.at/orte.html (accessed Monday, June 7, 2010)

that care should be taken for it, as Manfred Werder does in pieces such as *2005(1)*.

fig. 33:

ort
zeit

(klänge)

place
time

(sounds)

2005^i
manfred werder
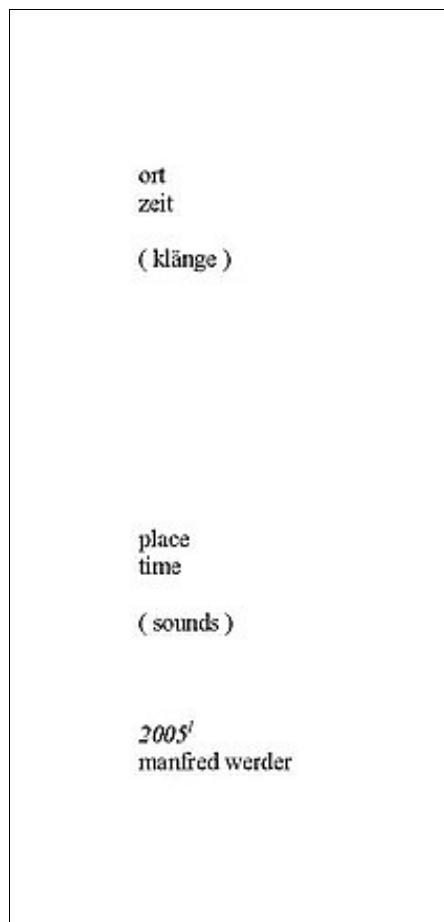
This consideration for site may be explicit or implicit in the score. If performance requires a certain amount of coordination in the moment based on visual or audio cues, some spaces will certainly work better than others. This will of course be dependent on other characteristics of the piece or its performance. What is the dynamic range? What are the physical requirements of the instruments and their relationship to the space? A piece for piano will most likely not be performed outside, whereas a piece for bass flute may, but would likely be inaudible (whether or not that would be desirable would have to be determined through a performer's understanding of other attributes of the piece). Likewise, the type of score or its physical make-up may suggest various possibilities; something that doesn't have to be read from directly would lend itself to outdoor performance, or performance without bright lighting, in a way that a score across several pages which must be read from would not. This consideration for site does not have to be stated in a score to be important to a composition and its performance. Again, about his piece *Galileo*, Tom Johnson observes, "I find that with this kind of music, since it's coming from Nature, it doesn't

matter if the wind is blowing, birds are singing or cars are going by, because this music is part of Nature anyway."[141]

While Johnson describes one type of variability in the site of performance, another variable element which may be considered is that of the space of performance itself. To be fully adaptable to exploit site, certain variations in performance may be desirable within a score. While the following statement is made by an improviser, the general premise may potentially hold for any performance:

> "One of the things about improvising is that, physically, certain phenomena can only happen in certain rooms, and when you recognise this as a player and get some sort of group sound, you can work with that group sound and generate music which would be impossible elsewhere."[142]

These considerations are important to Phill Niblock when performing his own works. Even if the performance consists solely of audio playback, the composer demands a good sound system, which he "tunes" using a decibel meter according to the space, audience, specific piece, and any other factor appropriate to the situation. That is, simply listening to a recording in a generic environment is not "the music"; for the music to come into being, it must be presented in a specific way in a physical space.[143]

The relationship between a piece's performance and performance site may be considered in an almost inverse way to this as well. For the first performances on pocket trumpet of his pieces from *On Foot*, Craig Shepard writes that,

> "The radius within which the trumpet could be heard defined the performance space. […] When the piece worked, it created a dialogue with the day-to-day sounds of the space, allowing listeners to hear that space in a new way."[144]

Despite the differences in approaches to space between Niblock and Shepard, both approach the site of performance as an important factor in whether or not a piece will "work," despite not being explicitly laid out in their scores.

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141 Johnson, Tom, 'Interview with Dan Warburton', *Paris Transatlantic Magazine* (March, 2007): http://www.parisTransatlantic.com/magazine/interviews/johnson.html (accessed September 9th, 2011)
142 Butcher, John, 'Interview by Dan Warburton', *Paris Transatlantic Magazine* (March, 2001): http://www.parisTransatlantic.com/magazine/interviews/butcher.html (accessed September 9th, 2011)
143 From lectures and convcrsations with the composer at Ostrava New Music Days, 2009
144 Shepard, Craig, *On Foot*, Zürich: Edition Howeg (2008), p.25

3.3: Subtraction

In the first chapter I described the importance of subtraction to the experimental process. It is not carried out in only one area of experimental music, but applies to many situations, including performance and the presentation of scores for performance. Subtraction is not a form of reducing possibilities, but of finding new possibilities by doing away with some of what already exists.

As discussed previously in this chapter, the elimination of learned instrumental practices may be desirable; this is a kind of subtraction. Within a performance, subtraction of what is known to be possible may also take place. When discussing objects that I might use in an upcoming performance of his *A Few Silence*, G. Douglas Barrett told me, "that's a great thing about this piece – you can just bring a bunch of shit you might not use." [145]

This same sentiment can be applied to what is presented to performers. As Michael Pisaro notes, "Much of the experimental tradition concerns what can be left out of a score." [146] Pisaro goes on to ask, "Will the resultant clarity of a score create a sense of clarity in the performance?" [147] The goal then is not to subtract from what is possible in a score so as to be unclear, but to be as clear and focused as possible. If more information was presented, that which is crucial to a piece may be overlooked. About this, Sam Sfirri says, "I don't want to give them [the performers] any more than they need – the idea itself and how to obtain that." [148] James Tenney used a mathematical analogy; "The way mathematicians use the term 'elegant', that's an idea of elegance that I strive for. And what that basically means is you're doing more with less, as Buckminster Fuller liked to say." [149]

One example of the subtraction of some possible and common elements of a piece and score is provided by Tom Johnson regarding his *Block Design* pieces.

> "So far all there is is a series of chords. That bothered me for a long time, I thought maybe I should add a melody or a rhythmic element, but then I remembered what Morty Feldman told me: let the music do what it wants to do. So I thought what does this music want to do? More and more I came to the conclusion that these were just chords, with their symmetry. So leave them alone. I call them unfinished pieces, not because I don't want to finish them, but because they *don't want to be finished*. Instrumentation is another temptation; I could be a 'composer' and orchestrate them. But that would be adding my own subjective bullshit, and that's what I'm trying to get away from." [150]

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145 Via skype, 2009, when I told him about my new piece of metal I'd found on the university campus
146 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.69
147 Ibid., p.70
148 Personal interview with the composer, August, 2009
149 Dennehy, Donnacha, 'Interview with James Tenney', *Contemporary Music Review, 27:1*, 79 — 89 (2008)
150 Johnson, Tom, 'Interview with Dan Warburton', *Paris Transatlantic Magazine* (March, 2007): http://www.parisTransatlantic.com/magazine/interviews/johnson.html (accessed September 9th, 2011)

This subtraction of the subjective allows the piece's objective identity to come to the fore. As this is what's presented to the performers, their ability to come to a clear understanding of the piece's needs is more likely than if they had more information to filter. In doing this, Johnson allows for the possibility of other problems of performance to arise, but in judging the numerous possibilities, this seemed to be the best path forward. As James Saunders observes,

> "notation is always a compromise. For me, notation should be efficient, meaning it should serve its purpose without containing redundant information, even if a lack of explicit direction in some areas creates particular contingencies in its realization (looking at what composers don't notate is always revealing)."[151]

Subtraction of standard elements of notation may also be crucial to the variety of ways that other elements of notation may be read and performed. This is the case with much of the Christian Wolff's work, whereby doing away with clefs leads to a single note-head possibly being sounded in many possible ways. The composer refers to these situations where one notation may purposefully be sounded in many ways as "economy of notation."[152] Where three possibilities within performance could be notated separately, Wolff will often employ only one notation including text describing how this one notation may lead to the multiple possible readings.

3.4: Fidelity

All of the above considerations when preparing a score have to be made, ultimately, for one reason only: so that a performer's interaction with the score will result in the scored piece coming into being in performance. This is the criterion by which performance of composed experimental music is best judged; does the performance bring about an instance of the piece in question? If this is not done, any other questions of quality of performance are meaningless. In this music, the performers do not have options open to them for reasons such as "freedom of expression," but to allow for each to produce an accurate performance to the best of their ability. While a performer may be able to interact with a score and come up with some audible result, if this performed result is not in keeping with the piece to which the score is associated, it is not a performance of the piece. It is not solely the performer's responsibility to see that this is done, but also that of the composer to ensure through score and notation that performance will result in an instance of the piece.

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151 Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.355
152 Wolff, Christian, lecture at Ostrava New Music Days, 2009: "I like the idea of economy of notation" - for instance, 3 written notes can turn into many possible things (by using different clefs, transpositions, etc.)

Cornelius Cardew wrote that, "What I am looking for is a notation (way of writing a text) where fidelity to this text is *possible*."[153] This is the concern for the score; for fidelity to it to be possible. Cardew also notes that, "There can be no indeterminacy in the notation itself – that would mean a sort of blurred sign (as in Bussotti) – but only in the rules for its interpretation." [154] Good examples of this way of working and thinking lie outside of music in the work of visual artist Sol LeWitt. The artist's instructions to the draftsmen who execute his works include words such as "line", "square", "arc", "circle", etc. While there is an infinite number of possible instances of these figures, the meaning of the words which define them is absolutely clear. Unfortunately, nothing in music is quite this clear. However, this clarity may be approached with some notations which are agreed to have a common meaning. In text notation, similar concepts are reflected through use of words such as "tone", "noise", "pause", "silence", etc. While these words are not as precise as those of geometry, what is important is that they *be used as deliberately and precisely* within a score and within a body of work.

Performing such work doesn't come from first having some learned musical experience, but rather from first trying to confront and understand the situation that the score suggests. Only after this can individual considerations be made. About Christian Wolff's *Stones*, Antoine Beuger writes,

> "preparing a performance begins with a careful reading of these instructions. While they contain an abundance of possibilities, they also exclude many things. They do not speak at all about either the sequence of events or their potential relationships. The score describes a condition under which things may happen, not a process in which things develop." [155]

In such a reading,

> "[...] the most important matter for the performer to decide is: which instructions are interpretative (an interpretation provided gratuitously by the composer) and which ones are essential to the piece, i.e. are actually notations in their own right, in which case they must naturally be respected."[156]

This is a crucial decision for a performer to make, and for a composer to be cognisant of, as the score may not be the only way to get to a realisation of a piece. It is important for the performer to understand that their work is not simply executing what is on the page, but executing what is on the page in order to bring about the piece. As Sam Sfirri told me, "I don't remember what I write, but I

153 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.9
154 Ibid., p.8
155 Antoine Beuger qtd. in liner notes to Wolff, Christian, *stones*, EWR 9604, Berlin: Edition Wandelweiser Records (1996)
156 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.123

remember what I wanted, and what I wanted never changes."[157] One such careful performer, 'cellist Charles Curtis, observes, "There's a fine line between it being about the performer, or about the piece, and you have to realize, this isn't me, this is the piece. You want it to be the piece."[158] The wording that Curtis uses here is important, as he references not "the score," but "the piece." About this relationship between piece, score, and performer, Cornelius Cardew wrote the following:

> "The notation should put the player on the right road. He can rise above the notation if he works through the notation. Interpreting according to the rules should lead him to the identity of the piece; this grasped, he may slough off the rules and interpret freely, secure in the fact that he knows what he is doing – he 'knows' the piece."[159]

That, in effect, is the ultimate purpose of a score; to enable the performer to "know the piece" so as to accurately perform it. Anton Lukoszevieze has eloquently described such performance as, "an attempt to get to what I perceive to be the heart of the matter."[160]

Getting to the heart of the matter, as Lukoszevieze puts it, is not always an easy task. This is especially the case for pieces in which a performer's interaction with the score, notation, and/or other performers is crucial to the piece's identity or those works which are in themselves complicated in such a way that any one performer's realisation will necessarily differ from another's.

> "One can establish a hierarchy among the rules and make general decisions about which rule takes precedence (where two rules seem mutually exclusive). Alternately one can decide for each particular situation which rules are binding. (This applies particularly to Wolff and Feldman. Wolff's 'instructions' consist largely of suggestions.)"[161]

Even when such hierarchies are established, each piece may require something slightly different from the performer in his or her reading of the work.

> "Should one read for intent, attempting to glean the 'spirit of the piece,' or does one take the language more rigidly, doing only what is clearly stated? The method used might vary from piece to piece. In any event, with committed performers, there will always be different ways

157 Personal interview with the composer, August, 2009
158 Curtis, Charles, 'Interview by Natasha Pickowicz', *Paris Transatlantic Magazine* (March, 2010): http://www.parisTransatlantic.com/magazine/interviews/curtis.html (accessed September 9th, 2011)
159 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.18
160 Anton Lukoszevieze qtd. in liner notes to Cardew, Cornelius, *chamber music 1955 – 1964*, MRCD45, Matchless Recordings and Publishing: Matching Tye, UK (2001), p.11
161 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.10

of reading the text and various ideas about what to do with it."[162]

Any and all of these decisions made by performers must ultimately relate to the best way of bringing a piece into being. Even when the performer may take great measures towards making a wholly individual and unique realisation, they are still doing the work of interpreting notation in service to the piece as real but abstract entity.

"To realize or make a version of a piece is not to compose one. David Tudor did sometimes write out versions of some the pieces he played — for example, the *Intersection* pieces by Feldman — as a discipline and as a way of making a reliable and accurate performance. But he seemed conscious of the fact that he was doing the work of interpretation, trying, as in all notated music, to represent as faithfully as possible whatever was indicated by the images and words of the score."[163]

Though written about the music of Tim Parkinson, the following quote from Philip Thomas applies to almost all of the music I have discussed up to this point:

"Traces of other musics may be suggested by some of the material, though the focus for the performer is on projecting the sounds without the clutter of imposed interpretative rhetoric. In so doing both composer and performer declare themselves and this beautiful music is revealed."[164]

It is this revelation of the music that the performer is carrying out. A piece of music is not dialectic; it is assertive and affirmative. It exists, but must be brought into being through performance for both composer and performer to come to terms with it.

3.4.1: Not *Everything*, but *Anything*

Dignity, as Christian Wolff mentions, is important when addressing performers. I must treat the possible performers of my work with dignity through the scores I present to them. I do not want my scores to insult a performer's intelligence or abilities (the way that this is approached was covered in previous sections on audience). I do not want to treat performers as a tool to make *my music*, but rather as equal partners in a process through which music comes into being.

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162 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.50
163 Ibid., p.44
164 Philip Thomas qtd. in liner notes to Parkinson, Tim, *piano piece piano piece*, EWR 1005, Haan: Edition Wandelweiser Records (2010)

Freedom, on the other hand, is a more tricky matter. To talk of freedom in this manner, we must first acknowledge the free will of the individual. Once we recognise that free will exists, how can one deliver upon that? For freedom to be the purpose of openness in a musical score seems then to be largely absurd. If we recognise that performers are not engaging with scores in a professional capacity, hierarchical modes where freedom can be given and received disappear; performers are not in my employ, so I can neither grant nor take away their freedom; all have come willingly. This openness may be viewed as a different type of freedom – freedom for each to explore what s/he finds important in the work; freedom – or simply the opportunity – to exploit their finest abilities; freedom to make the work as well as it can be made. This is the purpose of the openness in my work.

As Cornelius Cardew wrote, "Real freedom lies in the recognition of one's responsibilities."[165] In the case of performing indeterminate works, the responsibility of the performer is to produce an instance of a piece in performance. If it were the case that every solution would do where things are kept open, there would be no point in keeping it open to the performer. Any arbitrary solution could be chosen and notated by the composer. An instance where an element of performance is left open should allow a performer to do *what is required* to the best of his or her abilities. I do not mean to suggest by this that one performer may be better than another due to ability, but rather that each, having different abilities, is given license through openness to find a solution which works best for them, but may not be best for another.

Elements within a score are not left open to allow for a performer's self-expression, but rather to suggest that *any* possibility (but not every possibility) may be suitable in that instance. It is an acknowledgement of the equal relationship between composer and performer; a giving up the reigns to the possibilities of the piece and events that may spring from it – launching into the unknowable from a point of known departure. This is not to suggest that every possible interpretation of the score is accurate. Many possibilities may be inappropriate, though the number of appropriate possibilities still constitute an infinite set. Members of this set may be unknown by the composer and performer both, but by first trying to understand what is "the piece" a performer may start to fill in this eternally incomplete set.

> "There is a great difference between: a) doing anything you like and at the same time reading the notations, and b) reading the notations and trying to translate them into action. Of course you can let the score work on previously given material, but you must have it work *actively*."[166]

In the processes of coming to terms with what a piece of music is, openness of some

165 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.20
166 Ibid., p.107

elements may guide a performer toward that end.

> "[An] argument in favor of leaving an element unspecified is that fixing it would be irrelevant – would not change the flavor of the music, which is already well established. Again, in leaving the player free to make decisions about one element, the composer is directing a psychological measure at him in hopes of making him think twice about what he is doing. As part of his interpretation, the player must ask himself what sort of pitches are most appropriate – in effect, what sort of music it is that he is playing. In a piece of thin texture, such as [Morton Feldman's] *Projection IV*, the pitches chosen by each player will be heard individually, and the resulting sound will be a combination of the decisions characteristic of both of them."[167]

> "'Dynamics are free' does not mean that there are to be no dynamics, or one constant dynamic, but invites the player to ask himself 'what dynamic(s) for this sound?', thus bringing him into the situation of having to take care of the sound, putting it in charge, making him responsible."[168]

As Petr Kotik has said, "[the] More you get to know [the] music, [the] more you understand what the music needs."[169] What the music needs may differ between individual performance situations and performers. Despite this, while "Every performance is different [...] the piece is the same."[170]

Openness may not exist only in relation to things that performers do in a performance involving the production of sounds, but in every other aspect of performance as well. Again, while there may be an infinite set of equally good possibilities, not all possibilities will be suitable. "In selecting pieces for a performance, attention should be given to the situation within which the piece is experienced. Not every piece will work in every situation."[171] All of these things are related; the site, the performers, their instruments, etc. Changing any one variable may alter the set of appropriate possibilities for any other variable.

Often times, open parameters are interesting for what they rule out. If one asks for "any tone," though this is open to infinite possibilities, it also tells the performer many things about what is not to take place: no chords, multiphonics, un-pitched noises, etc. Likewise, while "quiet" is open to interpretation and may vary from on instance to another, there are many things that would

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167 Behrman, David, 'What Indeterminate Notation Determines', *Perspectives of New Music*, Vol. 3, No. 2 (Spring – Summer, 1965), pp. 58-73, p.63
168 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.18
169 Kotik, Petr, lecture at Ostrava New Music Days, 2009
170 Ibid., regarding *Many Many Women*
171 Shepard, Craig, *On Foot*, Zürich: Edition Howeg (2008), p.99

never be considered to be quiet (unless an unfaithful performer purposefully attempted to subvert the piece). In Marcel Duchamp's second *Erratum Musical* (the one with the marbles and wagons), the composer, "indicates his preference for 'a designated musical instrument (player piano, mechanical organ or other new instruments for which the virtuoso intermediary is suppressed).'" [172] A list of possible instruments is given, and here the reason for that possible infinite list is given. In most cases the reason will not be given and must be deduced by the performer based on their understanding of the piece, not just that one element of the notation.

In his essay "Chance Imagery", George Brecht wrote the following:

"It is often useful to keep in mind *the universe of possible results*, even when this universe is hypothetical, for this clarifies for us the nature of our chance event as a *selection* from the limited universe."[173]

While this was written about chance composition and not indeterminacy, it has implications for what I am discussing here. Both chance and the indeterminate element result in a selection from the limited universe. What is so curious about both is that this limited universe is potentially infinite yet also exclusive; the set is limited by what it excludes – there are many things that are not possible.[174] To best understand what single choice should be made in any one performance, this set must be considered, though it must also be understood that any outcome can not define the set in total.

"[In *Autumn '60*,] The number of possible solutions for even a single beat far exceeds the number of musicians that can be got together for a performance, and if all the possible solutions were presented simultaneously the result would in any case be an undifferentiated mass of sound. Thus the criterion of a good performance is not completeness (that is, perfection), but rather the lucidity of its incompleteness. Any performance is a kind of documentary relic (more or less revealing) of the composer's conception." [175]

In theory, all of this openness, all of this freedom, may seem daunting when paired with the task of producing a performance of a piece of music which is itself some largely abstract, ineffable thing, but in practice the task is often very simple and straightforward. The composer is not the performer's adversary, but their partner in brining music into being; s/he will give the performer

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172 Bryars, Gavin, 'Notes on Marcel Duchamp's Music', *Art and Experimental Music*, Studio International, Journal of Modern Art (November/December 1976), p.278
173 Robinson, Julia, *George Brecht – Events – A Heterospective*, Cologne: Walther König (2006), p.22
174 There are many common examples of such infinite but exclusive sets; even numbers, odd numbers, etc.
175 Cornelius Cardew qtd. in Tilbury, John, *Cornelius Cardew: A Life Unfinished*, Matching Tye, UK: Copula (2008), p.108

guideposts. The open element – this *anything* – does not float freely. It is bound within a score, within a certain context of a piece, and that piece has requirements.

> "So, you go back and forth between very precise things and music where your choices are more open, which is an idea I like, you know, running that gamut; that brings you freedom. I think of it as maybe helping people to understand what they could do when they are free." [176]

Though choices must be made by performers, many pieces are presented in such a way that for each performer and performing situation, the appropriate choice, or several appropriate choices, will clearly present themselves.

3.4.2: (non)aesthetics

Historian Greil Marcus wrote of the 1957 meeting in Alba, Italy, which resulted in the founding of the Situationist International, "Art was breaking up over a contradiction that was less aesthetic than social."[177] I think the same was true of music at the time, and was largely accountable for the proliferation of experimental music from the '50's to today. The concern for social situations is why I give so much care to the relationship I have with performers as mediated through my scores. I am composing social situations, not aesthetic ones. The methods I use in any composition are what I feel are the best to make that social situation work: work as being realistically realisable, work to make a stimulating experimental situation and process, and work to bring a particular piece into being.

Simple musical elements, open instrumentation, and other indeterminate elements go hand-in-hand. "A long tone" and "as long as possible" are always possible, in first a relative and then an absolute sense. "A tone" is anonymous – it has no model. No player or instrument can do it better than any other (assuming a pitched instrument). Further, asking for those raw materials is not a request for mimicry or reference to the past. What is important to the music is not the sounds and actions themselves, but how these things operate in a given situation. When considering what can be done by a wide range of possible performers, certain limits present themselves when considering what must be called for in a score to a given piece. In some cases, these limits will dictate required instruments, durations, pitches, etc. In other cases, these things will have wider limits – wind instrument, "long", "high" – or no limits at all. It is not that these limits are given to

176 Christian Wolff qtd. in Chase, S., Gresser, C. and Wolff, C., 'Ordinary Matters: Christian Wolff on His Recent Music', *Tempo*, Vol. 58, No.229 (Jul., 2004), pp. 19-27, p.20
177 Marcus, Greil, *Lipstick Traces : A Secret History of the Twentieth Century*, Cambridge, Massachusetts (USA): Harvard University Press (1989), p.368

make a piece more or less engaging, but because they are needed by the piece. It is not an individual sound or rhythm that must be articulated, but a work in total.

Cornelius Cardew wrote that a criticism that can be levelled at Christian Wolff's *For prepared piano*,

> "[...] equates interesting to unusual, the sounds become less interesting the fewer preparations that are heard, and consequently the piece becomes more and more boring as it progresses. This criticism is a manifestation of a fallacy that is becoming more and more widespread, and that is that unfamiliar things are more interesting than familiar things. The argument being that familiarity with an object exhausts the object, we know all there is to know about it, and it holds nothing further for us. Nothing could be more mistaken. The less we know about an object, the more primitive the concepts by means of which we try to grasp it."[178]

I am far more interested in similarity than difference. It is the similarity between any two tones (or other elements), not their differences, which make leaving pitches open a possibility while having a piece remain as a defined being in itself. In 2009, Wolff himself said, "There are no more weird sounds or unusual sounds."[179] This in itself is a reason for leaving sounds open; no sound will be more or less interesting than another. What is important is that the chosen sound is appropriate for the piece. This may also be a reason for calling for simple sounds. What is important is not new sounds, but new situations for sounding.

It is not only sounds, but the arrangement of these sounds which can exist in a certain way for non-aesthetic reasons. Robert Ashley has said, "I don't think there is any reason music has to have a beat, unless you are going to dance to it."[180] As I consider the performers to be my audience, I ignore the possibility or lack-thereof of dancing to my music. However, I do not agree that dancing is *the only reason* for a piece to have a beat. The music I am concerned with may have a beat, but it would be for a specific reason such as coordinating players or events so as to make certain situations, relationships, or contingencies possible. I am not composing in any genre, so having no beat in a piece isn't for the purpose of some "nonbeat" or "ambient" aesthetic, but rather a simple non-aesthetic. This is the same reason for often leaving out rhythms, melodies, harmony, and so forth. When such things are employed, it is for a functional purpose.

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178 Cornelius Cardew, qtd. in Tilbury, John, *Cornelius Cardew: A Life Unfinished*, Matching Tye, UK: Copula (2008), pp.138-139

179 Wolff, Christian, lecture at Ostrava New Music Days, 2009

180 Ashley, Robert, "The Future of Music" Edited by Karen Reynold - Copyright © 2000 Robert Ashley and the Composition Area, Department of Music, the University of California, San Diego (2000) http://www.rogerreynolds.com/future_of_music/texts/ashley/ashley.html (accessed 29/01/10)

The same can be said for dynamic considerations. Many of my scores, and those which interest me, call for soft sounds. Michael Pisaro observes that, "For what are very likely physiological reasons, there is simply much more perceived variation in volume at the low end of the scale than the high end."[181] Calling for soft or quiet sounds opens up the possibility of observing these variations. More importantly, this may influence the psychological and physical situation of the performers. When all players play below a certain dynamic level, each will be audible to the others, whereas when playing loudly, one performer may not be able to hear another.[182] When performers are aware of what each is doing, more types of coordination become possible. Quietness makes possible a further awareness of the performance site and situation. To go further toward this end, silence is useful. For Antoine Beuger, silence,

> "has nothing to do with calmness or quietness. It cannot be found in nature. It occurs as an event, as a rupture into the situation one is in. It's not necessarily nice or beautiful, it may well be quite horrifying. In any case it evokes a strong awareness of what is taking place at all, a direct – not symbolic or imaginative – encounter with reality, which means with contingency, singularity, emptiness. Silence in my music always is encounter with reality, enforced by the event of a situation being disrupted without any reason." [183]

While working with such simple elements as single tones, noises, and silence is open to infinite exploration, it is the exploration of a limited field, and in that sense presents a reduction. Craig Shepard observes that,

> "One of the dangers of working with such reduced material is that it may not be enough to sustain the moment. It can be boring. In these cases the work is naked and cannot fall back on the virtuosity of the performer to hold a listener's attention. When the musical material is reduced to such a degree, the listener hears everything. The composer and performer are responsible for each and every tone: the beginning and end of every tone, every fluctuation of pitch, every variation in color, and every compositional decision. When the composition or performance is off even a little bit, the audience hears it." [184]

What Shepard characterises as dangers may also be considered great attributes. When a piece is evaluated in terms of clarity or precision of score and performance in relation to that piece's

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181 Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.69
182 Christian Wolff has taken this "given" and composed with it in his piece *Play*
183 Gershon, Pete 'The Sound of Silence: The Music and Aesthetics of the Wandelweiser Group', Paris Transatlantic Magazine (2006): http://www.paristransatlantic.com/magazine/monthly2006/07jul_text.html (accessed July 17th, 2010)
184 Shepard, Craig, *On Foot*, Zürich: Edition Howeg (2008), pp.25-26

abstract identity, it is desirable for every compositional decision and variation in performance to be clearly perceivable. Furthermore, when trying to make a score performable equally by anyone who is willing to undertake the task, elimination of the reliance on the virtuoso is a positive. What is often needed to clearly articulate the musical situation is a universal simplicity; a single tone in isolation; a short sound or a long sound. If the point is coordination between players, that which allows this to most easily be carried out should be employed. If complicating matters does nothing for what is important to the piece, the simplest route should be taken.

3.5: Some Ways in which Performance may Influence Composition

Composers may not only consider performance important while composing and making scores, but in a reflective way when working on new pieces. Ideas for a new piece may come from a single performance, multiple performances of a single work, or from something new which happens in the work of a certain performer or performers.

George Brecht's father played flute in the New York Metropolitan Opera Orchestra.

> "There is a story of the soprano who was bugging everybody with temper tantrums during rehearsal. At a certain point the orchestra crashed onto a major seventh and there was silence for the soprano and flute cadenza. Nothing happened. The soprano looked down into the orchestra pit and saw that my father had completely taken apart his flute, down to the last screw. (I used this idea in my 1962 *Flute Solo*)."[185]

fig. 34:

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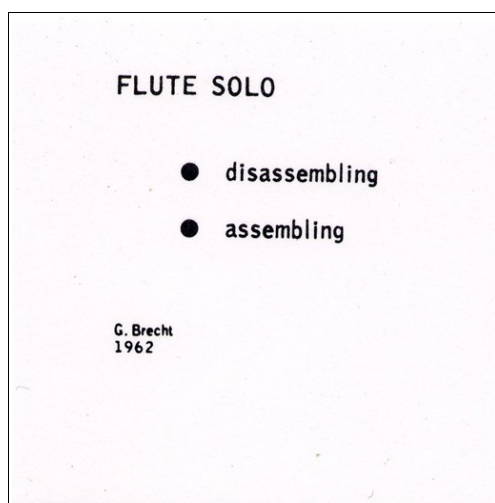
185 George Brecht qtd. in Martin, Henry, *An Introduction to George Brecht's Book of the Tumbler on Fire* , Milan: Multhipla Edizioni (1978), p.121

Nam June Paik's *Zen for Head* was itself an interpretation of La Monte Young's *Composition 1960 #10* ("draw a straight line and follow it"); "this piece, which began as a composition, took form as a performance, and ultimately was preserved as an object in the Museum Wiesbaden." [186] G. Douglas Barrett has taken this practice to extremes, to the point where it encompasses the majority of his current work. Barrett's *Derivation XIV*, for example, is based on the performance I gave with the Edges Ensemble of *Derivation X*, itself based on a performance of an earlier work. Barrett has codified this as a generic procedure in his score *Performance Transcription*.

fig. 35:

Performance Transcription (*Piece*)

    for Francesco Gagliardi

Transcribe the execution of a performance

    (or transcribe its documentation).

Perform that transcription.

                G. Douglas Barrett, 2008
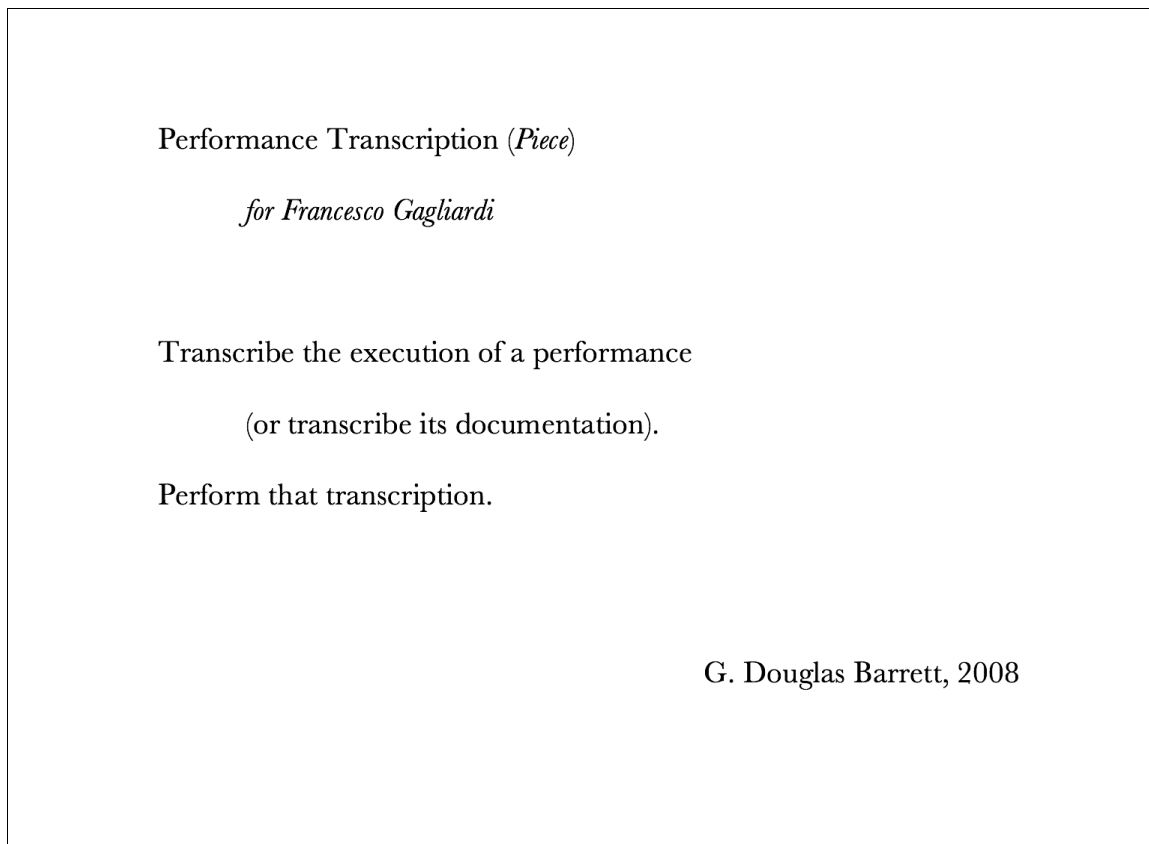
Simultaneous performances of work by several composers occurred in 1962 during "Neo-Dada in der Musik", organized by Paik.[187] During the 1965 Fluxus Carnegie Recital Hall concert, two pieces by Yoko Ono were performed simultaneously.[188] To perform works simultaneously by multiple composers is generally a decision that would be made by performers, though some composers, such as Istvan Zelenká, have composed works explicitly to be performed during

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186 Jenkins, Janet, ed., *In the Spirit of Fluxus*, Minneapolis, Minnesota: Walker Art Center (1993) , p.14
187 Ibid., p.26
188 Ibid., p.33

performances of the work of others.[189] The possibility of pieces being performed simultaneously may be written into the score as in Michael Pisaro's *everyday* and *The Collection*, both of which include pieces with their own titles which may be performed as single works. Simultaneous performance of existing works may itself lead to new works. Such is the case with Antoine Beuger's *too*, which consists of simultaneous playback of two recorded works: *two*, performed by Irene Kurka and Jürg Frey, and *three drops of rain. ocean. east wind.*, performed by Ko Sihikawa and Rhodri Davies. The second of the two works which make this new piece is itself played back twice in the new piece.[190]

A more common, but less controllable, way of performance influencing composition comes not from single performances or relationships between pieces established through performance, but from the ways in which performers work with scores. These performances may make it evident that certain things are possible to call for in scores that would not have otherwise been considered. I do not mean the sort of instance of performers being able to play higher pitches, longer tones, etc., but rather evidence that performers have an analytic or imaginative ability to bring things out in performance that a composer may not have necessarily foreseen or thought possible.

> "Tudor's painstaking methods in preparing the indeterminate works of Cage, Wolff and Feldman from the 1950s, and his convincing performances of them are, as these composers have indicated, part of the reason why they kept writing this kind of music. […] The performer could grow and change in his relationship to the image presented by the score. The discipline, which each performance, of returning to what was written or drawn, to decipher, with a slightly changed eye, the marks and spaces – and to re-imagine their sounding possibilities – is created by the necessity of interacting with someone else's vision. Imperceptibly, over the course of this extended process the performer might develop such a powerful vision of the work that it is no longer very clear whose music is being played."[191]

I am desirous of such relationships with performers, and when possible try to cultivate them. I quite like situations where it may be unclear whose music is being played, as these instances seem to be where a real newness may exist; if I can imagine how a piece will be done, its performance is less interesting to me. I want to be surprised by a performance. I want to be

189 Zelenká's oboe solo, *intact*, "should be performed in a large and special space, on the roof of a building, in an apartment through an open window, somewhere in the city or in the countryside for example, as independent solo or simultaneously with other musical or non-musical productions in a non-traditional concert or theatrical context." Zelenká, Istvan, *intact*, self published (2007)
190 Recordings of both pieces are available on Beuger, Antoine, *two . too*, EWR 0903/04, Haan: Edition Wandelweiser Records (2009)
191 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.44

stimulated by performers. Charles Curtis describes the relationship thusly:

> "From my standpoint, it's work that is clearly composed by a composer, but closely in connection to me. It's almost as if my role as interpreter or as performer has bled into the compositional process."[192]

I think it is rather not that a performer's role blends into the compositional process (insofar as that is considered to be the role of a composer), but that composer and performer are working together equally to discover the true nature of a piece to which the score is only one indication or part. This is a collaborative effort, not of composition, but of discovery – and something which neither party could have accomplished alone. This is not only a type of communication, but also a shared intimacy of the moment. By having both parties be equal in a piece's execution – not just in intention – hierarchy is eliminated in favour of sharing. It is this spirit of cooperation and sharing that keeps me doing this work. If having ideas and making scores were enough, I wouldn't care so much for the needs of performers and the importance they bring to the work.

3.6: Experimental Notation/Performance Practice as an Idea

Considering closely the performers of experimental music, the situations in which performances take place, and how such music is composed and notated, leads to a few questions: is there an experimental music performance practice? If so, are there associated methods of notation? About this first question, Philip Thomas writes the following:

> "Any performing tradition that has emerged over the past fifty years of music has done so as a result of performers sharing the artistic concerns of experimental composers but also being desirous of a situation which provokes them to be curious."[193]

Neither Philip nor I have been around for 50 years to have seen this play out over that time, but it certainly does seem to be the case from studying scores from the period and observing the words of both composers and performers. Experimental performance practice, as such, is one in which performers are not developing rarified techniques, but regularly engaging in a practice of experimentation and innovation. This may inspire composer and performer both to do what is *not* established.

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192 Curtis, Charles, 'Interview by Natasha Pickowicz', Paris Transatlantic Magazine (March, 2010):
     http://www.parisTransatlantic.com/magazine/interviews/curtis.html (accessed September 9th, 2011)
193 Philip Thomas qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham,
     UK: Ashgate (2009)

This does not mean a constant state of one-off compositions and performances, but a state where refinement exists in testing and determining what situations are the most stimulating to a performer's curiosity. How can a score best provoke this curiosity? As Philip Thomas says, "I like having to make choices."[194] Determining what choices a performer may want to make is the job of the composer. Realising what choices a performer can make to clearly and decisively bring a piece into being through contact with a score requires an understanding of what notation may be needed or best suited to the score for a given piece. This requires, in part, an understanding that a piece of music and its performance will both always be members of infinite incomplete sets; this is nothing new. In 1958, Cornelius Cardew observed that, "Groping for the ungraspable is the most satisfying of modern pastimes, where the satisfaction lies in the fact that satisfaction is impossible."[195] These concerns, however, may often only be related to a single performer's relationship to individual scores. Considering performance practice as a larger idea, we have to look to the live performance situation itself.

With this in mind, Cardew's statement may be viewed in a different light; grasping in real-time for a realisation in performance which is not only true to the piece but which is also one of an infinite number of possibilities. Keith Rowe, Cardew's colleague in AMM, has made the following observation about that group:

> "One reason why AMM is different from free jazz is that, within free jazz, jazz, and much music in general, people conceive of sounds and (re)produce them in performances. AMM has always been about *searching for the sound in the performance*."[196]

Though AMM were/are almost exclusively an improvising ensemble (performances of *Treatise* being a notable exception), this desire to be searching in performance may be viewed as a general concern of the experimental music performer, whether playing improvised or composed music.

With this in mind, it becomes the composer's obligation to compose and notate works which allow for this search to take place. Such is the case with Michael Pisaro's *harmony series*, about which the composer observes,

> "In playing the pieces one develops a loose method for making decisions, even if one doesn't have a conscious sense of what the others will play. [...] This is not to say that every decision is equally acceptable or beautiful. It is almost as if each situation presents a specific organism, one that has a complex set of behaviours – that one learns more through immersion than analysis. It is, at first, a situation in which composition and improvisation

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194 Thomas, Philip, lecture at Ostrava New Music Days, 2009
195 Cornelius Cardew qtd. in Tilbury, John, *Cornelius Cardew: A Life Unfinished*, Matching Tye, UK: Copula (2008), p.89
196 Rowe Rowe, Keith, 'Interview by Dan Warburton', Paris Transatlantic Magazine (January, 2001): http://www.parisTransatlantic.com/magazine/interviews/rowe.html (accessed September 9th, 2011)

seem to be indistinguishable. But as one keeps working, a version begins to develop, something that the collective decision-making of the group has begun to shape, and which appears to grow almost on its own."[197]

This collective decision-making is important in much experimental music. It may happen both before and within performance. What is important to recognise is that if the decisions being made are truly collective, then the removal, inclusion, or replacement of any one performer in the group would at least have the possibility to alter the outcome of the decision making process. Being aware of this and conscientiously composing and notating (for) such situations is not best done in any one way. Though Morton Feldman's music was much different in sound, notation, and performance demands from Pisaro's, he shared similar concerns. About Feldman's *Durations II*, David Behrman writes the following:

> "What happens in a good performance is that the players, by listening to one another, reach a broad understanding concerning their over-all rate of movement (a sense of ensemble which has to do in part with the musical background common to composer and players, in part with the nature of what they are playing)."[198]

A composer may have a completely unique and idiosyncratic work while still considering how to treat performers with the respect needed to allow this type of searching and decision-making to be involved in performance. Acknowledging these possibilities should not limit what is composed, but may dictate how it is notated and who it is notated for.

Who a piece of music is being notated for is an interesting question, apart from the ways I explored it in the previous section on audience, if one considers such a thing as experimental performance practice.

> "However, from another standpoint they are works that seem to have their own life, one loosely guided but not guaranteed or even necessarily experienced by the composer. The trajectory and development of the piece will be largely independent of him, even when he himself is, from time to time, one of the performers. A community of performers who have taken part starts to form – people who have, in some way, contributed to the same ongoing thread. In this sense the time between the performances is also worthy of thought: these are silences, of a kind – times when the work goes underground but does not disappear. For a small portion of our lives we are conscious of being in this silent community." [199]

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197 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham, UK: Ashgate (2009), p.70
198 Behrman, David, 'What Indeterminate Notation Determines', *Perspectives of New Music*, Vol. 3, No. 2 (Spring – Summer, 1965), pp. 58-73, p.61
199 Michael Pisaro qtd. in Saunders, James, ed., *The Ashgate Research Companion to Experimental Music,* Farnham,

Michael Pisaro wrote this about performing Manfred Werder's works, such as *9 ausfürende*, which will only be played once over a long period, but the same could be said of all composed experimental music. Experimental performance practice is established by all of those engaged with performing experimental works. A larger community is established from intersecting sets of players: sets of those who have played Werder's work as well as Cardew's, as well as John Lely's, etc. So long as these relationships exist (and they forever will, so long as the works are not lost), a community exists which self-defines what experimental performance practice is. It is not a club that requires any skill to be a part of, but rather an open invitation to any who may want to attend. Anyone bringing something new to this community through performances of pieces will redefine what that community is and what the practice is. As long as a score or performance situation makes such newness possible, the piece and the community cannot be exhausted.

If one is looking for completeness or the sort of validation that comes from the use of metrics, it is not to be found here. There will never be a set of "definitive recordings" of any of the composers I have mentioned; it is not possible by design. No matter; that sort of work is the realm of professionals, and mine is not. Antoine Beuger states this more politely;

> "Music, then, brings us into situations, we don't really 'know' how to deal with. Partly, yes: we have some experience, we might have been in similar situations before. We can mobilize some concepts, but without being completely sure about them. We have to question them, try them out, consider revisions, new combinations, or come up with a new solution. Short: we are learning. Learning by doing."[200]

It is important to foster a situation where we are not learning by doing in order to firmly establish an experimental practice, but establishing a practice rooted in learning-by-doing, where learning by doing is the practice.

This leads to my second question; is there an established or emerging way to notate works for this performance practice? Yes, and no. No, insofar as *any* notation which seems to work for performers will be accepted and used. It is still the case that some pieces include, in part or in whole, notations which are completely new and non-transferrable.

In developing notations for interested performers, many things have been tried and tested. Those which have proven useful have been kept. Some, such as time-space notation and notation for clusters, are now largely uniform. The more important innovations of today relate to how previously developed notations are employed. Some of the more common and useful of these are

UK: Ashgate (2009) , p.76

200 Beuger, Antoine, Jos Kunst: 'Making Sense in Music' (2001): http://www.joskunst.net/proefschrift (accesed January 15, 2010)

unstemmed open and filled note-heads, first used by "New York School" composers, Cage, Feldman, and Wolff.

fig. 36: an excerpt from Mark So's **TAYLAN SUSAM***, which employs both unstemmed note-heads, and the wedge, while giving no verbal instruction as to how they are to be interpreted.*
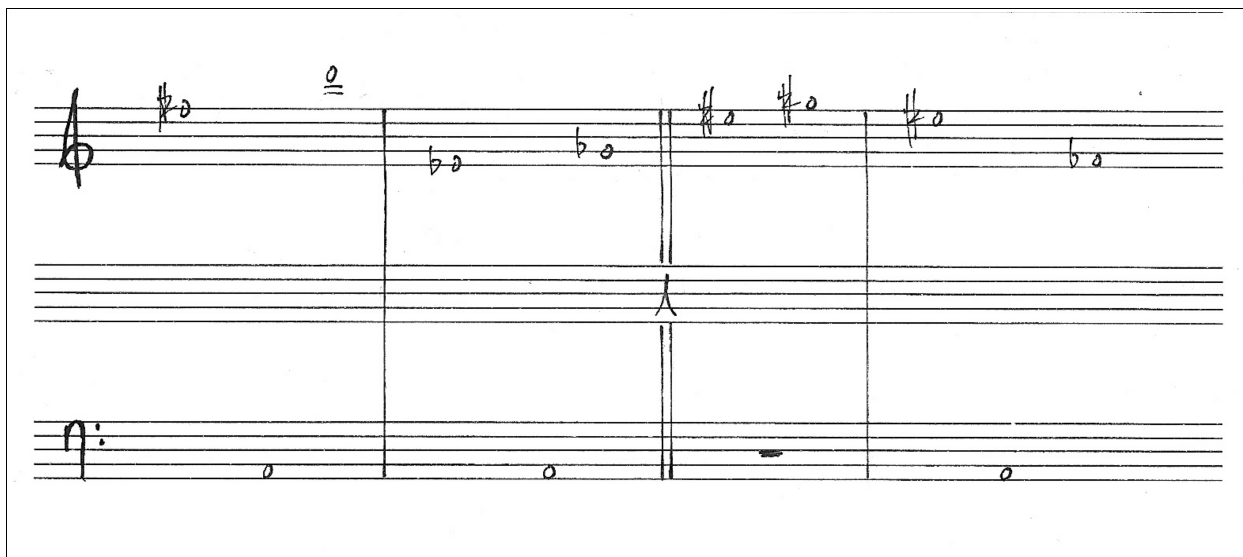
In the scores of Mark So and Craig Shepard, also evident is the use of the wedge, which Christian Wolff calls his "single most important notation."[201] It indicates a rest of indeterminate length. While composers will likely put some indication about how unstemmed note-heads are to be read in the score, a general practice has emerged wherein both are of open duration, with the open heads being of longer duration if both are employed. Performers are able to more easily deal with slight differences in use of similar notations for reasons of familiarity of sign, as Cornelius Cardew has mentioned (quoted in previous chapter). Having many composers use multiple notations for the same purposes is not helpful; it simply adds another barrier to getting at the piece, rather than being some sort of diminution of *newness*. For similar reasons, some of the greatest new uses of notation have come from the use of text and numeric notations.

Text and numeral are mainstays in experimental music *because of* their adaptability to the situation at hand and familiarity to all possible performers. Ultimately, the most important development is the realisation by composer and performer both that the score and notation *are not the music*, but rather means of coming to – and coming to terms with – the music; for accurately giving the performer a conception of what a piece is or may be.

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201 email correspondence, 15/02/2010

fig. 37: an excerpt from Antoine Beuger's* three drops of rain/ocean/east wind*. Filled in note-heads indicate naturally decaying sounds, where-as open note-heads indicate sustaining sounds, such as a full breath on a wind instrument or a full bow on a string instrument.
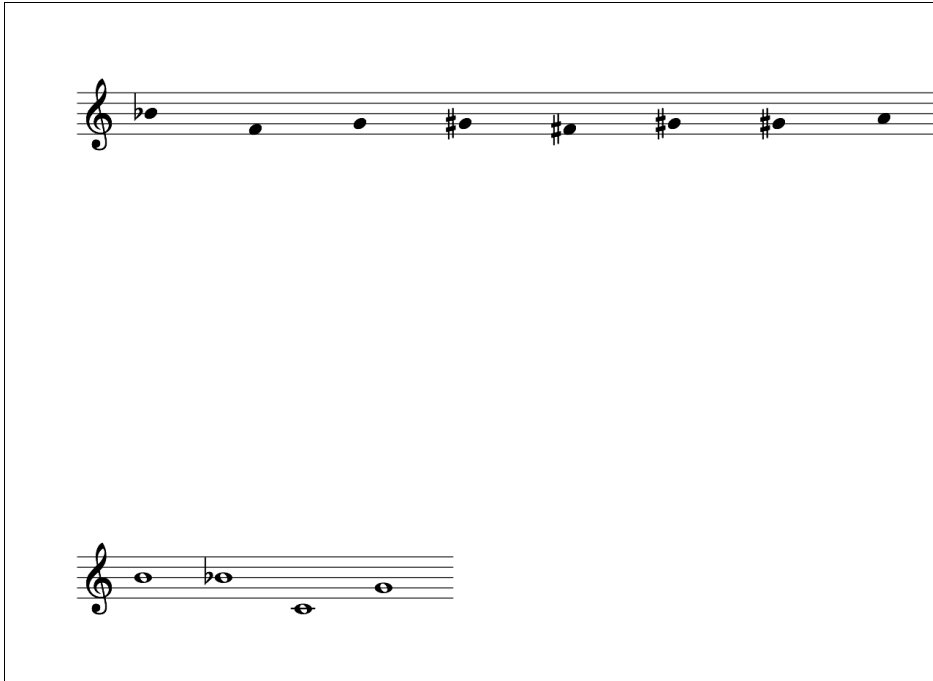
fig. 38:

ce qui « commence » n'est pas le 1 comme signe opaque de l' « unité »,
mais le zéro comme suture de toute langue à l'être de la situation dont elle est la langue
that which "begins" is not the 1 as opaque sign of "unity", but zero as suture of all language to the being of the situation of which it is the language

(Alain Badiou: Le Nombre et les nombres, 5.11., 1990) (transl. Robin Mackay)

le pré, aussi, est *une façon d'être*
the field, as well, is *a way of being*

(Francis Ponge: La Fabrique du Pré (Paris, le 22 octobre 1960), 1971) (transl. MW)

manfred werder, *2009²*

fig. 39: an excerpt from Taylan Susam's* for maaike schoorel*, which employs a unique use of numerals; the size of the font is relative to dynamic.
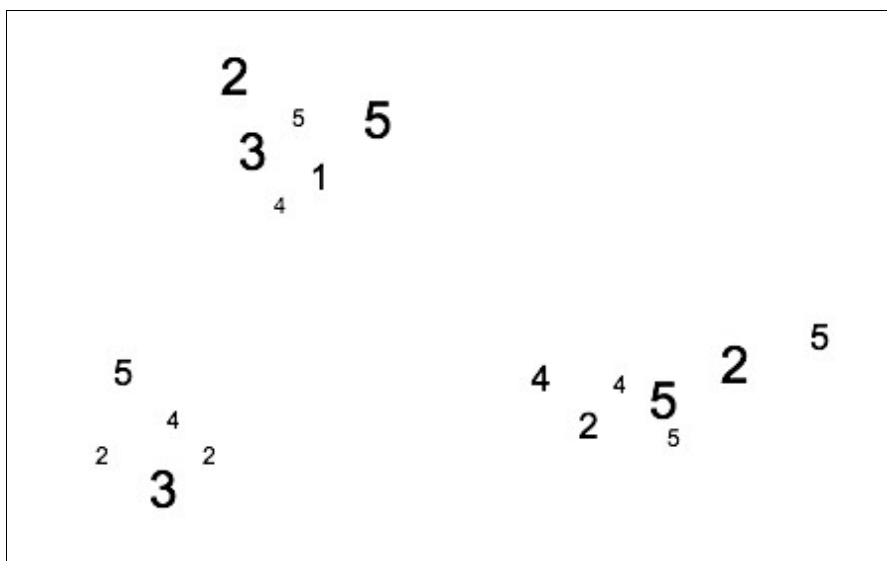
Accepting that it is the case that this "tradition" is one which may take all comers and continually change, what is to happen to it? What may I do with this understanding? Radu Malfatti, a composer, performer, and improviser who has been involved in experimental music (as well as other types of music) for several decades says the following:

> "It seems to be a sort of a rule or at least a well-known phenomenon that whenever somebody leaves a specific field of activity to do something new or different and enters a new field, he or she gradually gets used to the rules of this newly-occupied field. But what happens when stagnation – or at least the remote realization of it – takes place in the new field? Some people think they own the field and never want to leave it: maybe they'll even fight for it. Some people get bored and do the worst thing they can do, which is go back to the initial field or even beyond. Some people leave the old "new" field and go further, keeping the momentum of the initial searching and exploring."[202]

I would like to think that I, as a composer, am working in this last of these three groups and will continue to do so. More importantly, I want the work that I am making now to be eternally applicable to such performers *who are* and will be continually progressing – for the set of possibilities presented by the scores I am producing *now* to be infinite, and infinitely engaging for performers who I cannot imagine, and in ways I cannot foresee.

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202 Malfatti, Radu, 'Interview by Dan Warburton', Paris Transatlantic Magazine (February, 2001): http://www.parisTransatlantic.com/magazine/interviews/malfatti.html (accessed September 9th, 2011)

3.7: Appendix to Chapter Three

I began my relationship with experimental music as I had with other types of music, as a performer. I still regularly perform the work of other composers, and this engenders in me a sympathy with those who would perform my compositions. I try to critique my own work in the same ways that I critique the work of others when coming to their scores as a performer. This first led me to compose and notate works which I would like to perform. When composing and notating work without specific other players in mind, this is still the approach that I take.

A distinction I feel I must make here is that I'm not notating scores in ways that work best for me to perform from. As I already have an understanding of the piece as a composer, such a score would be a sort of short-hand. Rather, I try to present scores as I would want a score presented to me as a performer having no prior knowledge of the work. I would like to think that if I were to somehow forget about a piece I had composed, I would be able to know and understand the piece as well from my score as I did when preparing the score.

When making a score for another performer I try to imagine – and get to know, through practice and dialogue – what would work best for them; to "put myself in their shoes." There are questions I ask myself: What is their history as performers? What will certain social situations bring out in them? I must try to understand and account for these differences. This is often why I use a diversity of notation, as well as another reason that I examine and consider notation and scoring uniquely for each piece. I like to work with others, because I do not take part in composing so as to make what I consider to be "my music," but to be involved with making music as a social activity of which I see composition as a part. It is often important that I know who I am preparing a score for. If I know who I am writing for, I know something about the performance practice from which the piece will be approached. This influences both the process of composition and notation. Ideally, this would mean that a performer's conception of the identity of a piece is as complete as my own.

In 2007, Daniel Plöger asked me to compose a trombone solo for him. His only request was that the piece be precisely seven minutes long. Apart from this, my work with Dani was not about his input into the composition of the piece, but rather finding the best way to explain my conception of the piece as an abstract in terms, and then notation, which he could understand. The following is an excerpt of email correspondence between Dani and I between February 19 and March 4, 2008 (my writing is in italics):

> *JK: I've had this idea for a piece for awhile, but I'm just not sure if the idea is sound. The*
> *plan was that you would think of a sound (it could be a pitch or a type of noise) and find*
> *seven different ways to make it.... for instance, you could use different mutes, or different*
> *positions on the horn. One sound would happen during each minute of playing. I'm just not*

sure if it would work.... it's really hard to think of a sound without thinking of how you would play it at the same time. I don't want the sounds to be variations of one sound, but really different realizations of the same.

Do you think this could work? If so, I'll try to write it.

DP: Hmmm. Don't know. I think it's possible to think of a sound without thinking about the realization. One must be strict with oneself, and accept the sound in the exact moment one thinks it, I guess. In this way there is no possibility of thinking of how to realize it, since that would come shortly afterwards. With me anyway.

I think it could be difficult in another way though. I just did it: I thought of the sound of peeling a banana. Once I had that, I started thinking of how the realize it in seven different ways. But I don't know if I could do that without making variations. I could do it with air sounds. But any other technique wouldn't sound like the pealing at all. But maybe this is no problem.

It feels kind of platonic, this piece. The real sound of banana pealing is in the realm of ideas, whereas the observers are confronted with seven imperfect versions that are all rooted in this idea. What interests me is what the place of the 'idea' is. Should people be informed about their position in the cave? Should they have an opportunity to look into the world of ideas? I don't know.

I think we should try it out.

JK: I think your concerns are the same as mine. I don't like the platonic idea, because I'm not interested in representation or ideal results/forms/etc. What I'm really after is a way of having the same thing happen in several different ways. I think if I just said to play the same tone seven different times, the differences between them would become the focus of the piece, and I'm more interested in similarity than difference. I think by having the sound produced in different ways and keeping everything else very similar would make the similarity between them the point of interest.

Perhaps a way around this is to notate a general sound - maybe a "g" above the bass staff, marked p or pp. You would then come up with different ways of producing that notated sound. My initial worry with this approach was that there would be a normal or standard way of playing something notated, and that the other ways would seem like variations. I really want to avoid the idea of variation and just have what is fundamentally the same sound made in different ways, each as valid as the next. What do you think about that idea?

DP: Maybe you could avoid the problem of a "standard" way to perform the note by

notating the pitch on a normal staff, but not using a conventional note shape. You could draw kind of a blob. Only problem here could be that the performance of the 'note' could tend towards the playing of a graphic score (one performs the shape you drew on the paper). A dotted box around the pitch (or pitch range) to indicate the empty space where the sounds should be put might be a solution.

A note lower than the g above the staff might be better, since the lower the note played, the more flexibility the player has to manipulate the sound with the mouth cavity.

JK: I don't like the blob idea for the same reasons you've mentioned. I could somehow do something to indicate pitch range, but I think for this piece, what I find to be interesting is the range available when only considering one pitch - what is a 'g' for instance, when there are no other pitches to relate it to? We should discuss what pitch I might choose. I thought a high pitch would be good, because it would be available in more positions on the trombone - am I wrong? I assume there would be different ways of approaching such a pitch, based on what came before or was coming after it, what the fundamental frequency a player was tuning to, etc. I hadn't considered that the sound can be altered with the mouth - that might be interesting. I just want to avoid anything that seems like variation, though I know there will be some element of that. I want it really to be the same activity happening seven times. However, if it is exactly the same activity, then the piece becomes about repetition and variation, which I want to avoid. This is why I think a specific pitch that can be made in different ways is good - the same for dynamics. What is 'pp' when playing solo? I think also the note/sound should be held for as long as possible, while remaining consistent. Am I right in thinking that with mutes and in different positions the amount of air used to produce a certain pitch and dynamic would vary?

DP: This looks good I think. Could you send me the piece with the precise instructions, so I can work on it?

JK: Here is what I've got for the piece as of now. Let me know if it's clear - it's hard for me to know, since we've already discussed the ideas. I'd like to know if you were looking at this for the first time, would you still understand what to do without our previous correspondence. I should also note that the pitch could be changed - I wasn't able to find any tables that told me the different slide positions and what pitches they can produce, so I had no good way to pick one. If you think the pitch should be different, let me know (and please tell me why), and I'll change it.

DP: I've been working on the piece. Some thoughts:

If one uses alternating slide positions, changing mutes, and different playing techniques, the differences in timbre between the aforementioned categories is much bigger than between the options within one category (e.g. the difference between playing a g ordinario in 4th or 6th position is much smaller than the difference between ordinario 4th position and muted 4th position). This might make the small differences, created by alternating positions, unnoticable for the audience (which will be focusing on big changes once it has heard one).

Therefore, if the high g would be used, I would suggest to only use different positions. There are exactly 7 possibilities for this note. 2+, 4, 6, valve 1, valve 3, valve 5 and valve 7-.

The high g makes a number of techniques very difficult or impossible to achieve, if one aims for a sustained plain sound. Playing whilst inhaling, singing and playing, and mouth cavity changes would not work very well. Taking the g one octave lower would be better for this.

High g or low g would make a big difference to the performer's experience of the piece. The high g is pretty tricky in this setup. There's quite a big mess up chance. It demands strong nerves and a preparation that focuses on that (comparable to the trombone solo in ravel's bolero). The lower g doesn't have this 'virtuoso' aspect, so the performer would be concentrating on the sounds only.

I think both options have their charm. The psychological tension of the high g in combination with the minimal timbre changes would make it very exciting. The low version would lead to more 'sound imagination'. I like the second version best (but I'm probably biased, cos I'm scared to play the technically difficult version)

I prefer not to use mutes. I like it better when the piece deals with an exploration of the instrument by itself without adding stuff to it. In my opinion, handling mutes visually disturbs the silences and also visualizes the sound changes too much. I think that in a piece where so little is happening, mute juggling would create an almost theatrical effect. This is something you could enjoy (like Cage), but I think I would like this piece better without. What do you think?

Possibilities with low g:

positions: 4, 4 with valve, 3+ with half valve

embouchure: playing exhaling, playing inhaling

vocalization (changing mouth cavity): aa (= ordinario), ee, oo

use of voice: only playing, singing and playing, singing only

of course one can combine different categories (e.g. singing and playing & 3+ with half valve).

JK: These are very good comments - just what I need, but they give me a lot to think about.

I am not concerned with what the audience perceives, per se.... I'm just not concerned about the differences in the sounds, except that I don't want you to be making them different for the sake of variation. So, I think the high version may be best, because you could make the sounds as identical as possible. I'm far more interested in similarity than difference, and if the timbre is the same between the seven tones ensures similarity (as I've said before, always using the same position would change the focus, at least mentally, to the difference in time and minute differences between the individual tones). However, I feel conflicted about this. If I make the piece so specific, I feel that a relationship is created between us (composer/performer), which I am against. I want you to have freedom and just as much control over the piece as I do.... perhaps this doesn't concern you, so it shouldn't concern me (since the piece is being written for you).

I also think if there is this sort of fear before every note (though I don't want to make you afraid), it will make every tone an event singular to itself - this is ultimately the aim of the piece.... it is a sort of riddle to solve: how can different events be identical while being unrelated in their method of production? One way could be to have the pitches be completely different, but that would, I think, create a melodic/harmonic relationship between the sections. If I don't notate the tone/event with some level of certainty, there is the danger of the platonic dialectic which we discussed before.

Is there another pitch which can be played ordinario in seven different ways that would be easier than the g? I have no special attachment to the 'g'.

About the theatricality of doing the piece with mutes, etc. - I don't mind. I don't really care for theater, but I recognize that there is always some sort of inherent theatricality when it comes to performing music, which I accept. If the actions are simple and functional, it isn't really theater.

DP: I like the b flat above the g that you notated. Doesn't make it a lot easier, but in this case there are exactly 7 overtone series one can choose from (with the g there's a double (6th position & 1st with valve is the same overtone series)).

The b-flat is also the most basic (or maybe typical) note of the instrument, since the fundamental of the instrument in first position is a b flat. Not necessary of course, but I kind of like a little detail like that.

In case of using different positions the method of production is very much related (the slide is different, but the lips and air do the same). However, I think this will always be the case when one wants pitches on the trombone (except for singing through the instrument, which i wouldn't really consider a genuine playing technique)

I really love it with one pitch and different positions now. It's a wonderful experience (this opinion might change after the concert...)

Maybe you would find it too restricted, but I think I would like it if you would prescribe pitch, ordinario playing, and choosing from the seven different positions (but leave order and possible repetition free).
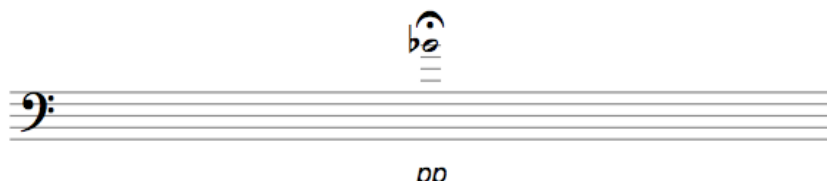
I like the piece!

JK: Here's a possible final version of the piece. I keep changing the wording and realize that I've probably over worked it - maybe if I took some time off, I could look at it in a new light, but I don't think there's any point in me making more changes today. I think now we agree on what the form of the piece is and how it should be performed, so that's all fine. If you have any feedback on how I could change the wording to make the piece more clear, I would appreciate it still.

fig. 40: detail from Seven Minutes for Trombonist

I think that this correspondence makes it clear that my abstract conception of a piece as the composer may not be immediately perceivable upon studying a score. However, by settling upon this notation for *Seven Minutes for Trombonist*, the player is able to produce the piece as I conceived it in performance. The piece has an abstract identity more broad than what is made possible by the score, but if I were to have scored it as I may best understand it as a performer, it is likely that Dani would have misunderstood, and the piece would not necessarily be present in performance. As is, if a performer is faithful to the score, the piece will always come into being in performance.

In contrast to this work with Dani, I would choose my piece *not*. In that case, were I to perform the piece, I would prepare material to perform from, and could have done so before preparing the final score for the piece. However, if someone else were to perform from my prepared material, I imagine that the nature and identity of the piece would not be clear to them in a way it may be by working from the score. This is the difference that knowing my audience and specifically preparing a score with that in mind can make.

I started making my scores portable in a number of ways as a matter of convenience. It was a way to get my pieces performed with the resources that may be at hand. However, I quickly came to have an interest in this as a unique property worthy of exploration. I have since made a point of exploring portability in its different facets; number of performers, instruments used (*Beauty and Industry*, for instance), duration (*piece for 12 saxophone players* is an example), range of material available for performance (*Odd Objects*), etc. The main point of exploration here is in determining to what extent a score for a piece can be portable while still ensuring that a performance from the score coheres to the piece's identity. When and how this is mentioned in a score is also an issue. These considerations are often also tied to considerations about the site of performance.

Such decisions have to be made on a case-by-case basis, but having this understanding of different types of portability is important both when coming to the conception of a piece, and when preparing the score. This is why it is important for me to compartmentalise my thoughts on portability, so as to analyse how these aspects of portability may be applicable to my work and inform my working method.

My interest in "freedom" is to give performers the freedom to make a work as well as it can be made. By this, I mean that the quality of a performance is not dependent on a platonic set of qualities for a performer to emulate, but rather the exploitation of their existent and potential unique thoughts and abilities. In cases such as *piece for 12 saxophone players*, and *Beauty and Industry*, a performance is dependent on not only the choices made by players, but also their individual physical abilities/limitations. It is this point where the difference between ability and limitation is

blurred where I find interest. It is simultaneously both a void and the closing in of that void.

While in the case of both pieces mentioned above it is likely that a performer with more experience with the piece would have a better idea of how to best exploit their abilities in service of the piece, there are not singularly right or wrong choices to be made. I think this is more clear with a solo piece such as *not* or *fidelity...* that the question is not about correct or incorrect choices, but simply which choice to make, which will be different for every performer. One performance will not be quantifiably better than another, so long as the score is followed and the spirit of the piece is upheld by every performer. This, I think in part, is what Cornelius Cardew meant when he wrote that, "freedom lies in the recognition of one's responsibilities."[203]

The nature of what I term to be (non)aesthetics in my compositional practice are, like other elements, not universal, but considered on a case-by-case basis. However, as with other aspects of my practice, I have formulated ideas about this to aid in the construction of a working method as well as providing another approach by which I may try to objectively judge my compositions.

I think it should be clear that with a piece such as *not*, there is no driving aesthetic consideration, but this is different from what I term as the (non)aesthetic. The harp solo, *kathryn of birmingham* touches upon this, as the aesthetic experience will differ based on materials used in a performance, but this still isn't related to the (non)aesthetic attributes of many of my ensemble pieces. It is with many of the ensemble pieces that I am creating situations which are more social than aesthetic, but where certain aesthetic elements are necessary in the establishment of the social situations.

An example of this is *superstition's willing victim* (from *Odd Objects*). If the chosen sounds are too short, the system of cueing would not be possible. While shorter sounds could be used if players were attuned to this type of listening and familiar with the procedure, the sounds would still have to possibly sustain for a time long enough to not be predictable. This is not only to accommodate all of the possible combinations of entrances and exits, but also to ensure a certain amount of unpredictability. With shorter, decaying sounds, a level of predictability would be introduced which would change the social dynamic of a performance.

Another way that the relationship between the perceived aesthetic and a social situation may be related in a piece is demonstrated with *Renascence*. While the vocal melody was composed as I might compose a pop song – that is, by making a melody which seemed to suit the text, void of any specific system apart from a chosen meter (this opening melody was composed over ten years before the piece was completed) – that, to me, is not the intrinsic identity of the piece.

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203 Cardew, Cornelius, *Cornelius Cardew: A Reader*, Matching Tye, UK: Copula (2006), p.20

fig. 41: **superstition's willing victim**

superstition's willing victim
for three or more players

Each player chooses one sound capable of being sustained for at least a short period of time.

Each player chooses one other player, attempting to anticipate both when the other player will start their sound and end their sound, playing their own sound at the same time.

If your chosen player starts their sound before you, you may start your sound later and try to stop at the same time as them. If you start your sound first, you should continue sustaining it until your chosen player enters, trying to stop with them.

If the player you are trying to align with stops their sound first, you may keep sustaining your sound as long as you'd like.

All sounds should overlap at some point. So, if any player has stopped their sound before you've started yours, you should not play.

This process is carried out as many times as there are players, even though all players may not play each time. Your chosen player may be different each time. Naturally, someone must start each time.

Joseph Kudirka
2007

As a whole, *Renascence* is constructed as an exploration of the soloist/accompanist relationship. Only after determining the nature of the accompaniment and the role of the soloist in transitioning between sections did I resolve to have the melody repeat throughout the piece – the intention being that this would easily allow the accompanists to know what they would be playing along with. While this repetition has a strong impact on the perceived aesthetic of the piece, the decision which prompted it was functional.

A number of topics mentioned in this text, especially in this third chapter, may raise the question of whose music is being played when a piece I have composed is performed. If ownership is ascribed, I have no problem owning up to a composition, so long as it is not seen as of superior importance to a performance of that composition. I am the composer, but the process which brings a piece to performance is a collaboration between equals. I think that the real question is not one of ownership, but that of the acceptance of a collective responsibility. It is the esteem I feel towards performers which makes me take my responsibility in the process as a composer so seriously. While I do view these pieces I've composed as being functionally anonymous truths in the same way that mathematical proofs are anonymous, I also acknowledge that in most cases I am the only person who would have conceived of these works. This is not a

negative, but rather a reason I continue to want to be involved with this process of music making; I like that it's personal, impure. Likewise, I am trying to establish situations where it may be possible for one performer to give a performance aesthetically similar to that of another performer using the same score, but unlikely to happen in practice, due to each performer's individual makeup.

The relationship I try to establish between myself and a performer is to establish a sort of shared decision making, but I'm also interested in fostering collective decision making between performers. In my ensemble pieces, I like to establish situations where no single performer can assert their will onto the entirety of a performance. This is the case where it is quite explicit as in *superstition's willing victim*, but also where players are not directly tied to other players with cues, such as in *Beauty and Industry*, and *piece for 12 saxophone players*, where each performer has a role in shaping collective harmony and may react to the other performer's as they see fit, while carrying out their individual tasks. I see this as composing situations conducive to the "searching for the sound in performance,"[204] which Keith Rowe mentions as an important aspect of his improvised experimental music.

When considering the extent to which there exists an existing or emergent practice of experimental music notation, I feel that the more there is, the better. I see no use in having multiple composers using different notations for the same purposes. This is why I've adopted the use of unstemmed noteheads, in pieces such as *piece for 12 saxophone players*, and wedges in *Violoncello*.

The standardisation of wording in text notation is less established, but something which I give great care to in all of my text notation. The more important aspect of text notation is how it may be utilised to serve performers wishing to engage with experimental music. One of its greatest advantages being that the method of notation is not tied to any one sort of practice, but ideally suited to the laying out of social situations, which may be unique for each piece. This is one way in which the practices of notation and performance in experimental music may be inexhaustible.

What is most important to me is that my works are clearly and precisely notated. This is my job – my responsibility in the process of music making. Having abstract notions of pieces serves me no purpose if I cannot communicate this abstract identity to a performer. This is not only about taking care in my notation. There is no purpose in my own appreciation for my notation if it is not appreciated by performers. I cannot expect performers to respect my compositions and my scores if my respect for them is not demonstrated in the same.

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204 Rowe, Keith, 'Interview by Dan Warburton', *Paris Transatlantic Magazine* (January, 2001):
http://www.parisTransatlantic.com/magazine/interviews/rowe.html (accessed September 9th, 2011)

Commentaries

The following are commentaries on individual works from my portfolio. While it is my intention for the work in the previous three chapters to be sufficient in establishing how I feel the works in the portfolio may be evaluated, I feel that giving some extra information about certain works serves to remove the work from a theoretical perspective and place it in a context of my life and that of those who perform the work, which to me is most valuable. These are works which are unique in my output in terms of composition, notation, performance, or an ineffable fondness I have for them.

4.1: *Odd Objects*

While I have other pieces in this portfolio which are in ways a part of a set (the "Wall Drawing" pieces, especially), *Odd Objects* is the only piece which is both an individual work and a set of pieces. *Hocketing* was initially composed in 2005 as part of a set of pieces for flute and percussion, but was retitled and re-notated to be included within this set. The other pieces in the set were either adapted from notes and sketches for individual pieces already in the works or composed specifically for inclusion in the set. Of the pieces in the set, only *pulse* cannot be played in isolation.

This situation in itself is not particularly noteworthy. In *Song Books*, John Cage used his own *0'00"* as *Solo for Voice 8*, and many pieces from that set can be done as individual pieces or as part of the larger whole. Many other composers have done similar things; an example I particularly like is Michael Pisaro's *The Collection*.

The reason that I do want to write about *Odd Objects* is because the scores related to these pieces in my portfolio are strong examples of the relationship between notation and score. Though I had been working on the piece for some time, I finished it so that it could be performed by New York music/theatre ensemble Object Collection. The score they performed from was only a rough draft; all of the information needed for performance was included, but there were spelling and grammatical errors still to fix, and a final layout had not been established.

The first complete layout of the piece was done by Jesse Seldess, the editor of the journal *Antennae*, for publication in the journal's 10th issue in February, 2009.[205] I was apprehensive about this relationship, as I had never had another person do any of the work on a score to one of my pieces, but found the situation to be interesting, especially as I appreciate the scores that Alison Knowles, Georgre Maciunas, and John Cage had made for pieces by other composers. Jesse used all of the non-text notation from my rough draft in his layout, but redid all of the text notation.

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205 This version of the score is the one that appears in my portfolio, and that which the performer's followed for the accompanying recording.

He fixed the small spelling errors from the rough draft and changed the type-setting, choosing his own font and layout for the text. I largely trusted Jesse's decisions, but there were some aspects of his layout that we discussed. In my rough draft of *counterpoint*, the non-text notation was spread across two pages, with the first page also including the text which is on a separate page in Seldess' layout. My reasoning for including both types of notation on one page was so that they could not be separated by a performer; all information needed to understand all of the notation would be included on one page. However, I was swayed to allow Jesse to make the change that he did as the score would be bound and therefore both aspects would still be united. A change he did make to his layout at my suggestion was the addition of the year of composition for each piece, as I feel this reinforces each piece's identity as an individual work.

After this publication, James Saunders asked to include *superstition's willing victim* in another publication. I felt that including a single piece from the set as Jesse laid it out would needlessly remove the score from a specific context for which it was made. Therefore, I made a new layout of this single piece for Saunders.[206] Comparing these two layouts, it becomes more clear which aspects of the notation are open to variation, and which are intrinsic to any possible version of the score.

4.2: *wyoming snow*

This is one of my few pieces which is intended to come as a direct result from the performer's confrontation with the score.

The non-text notation which now appears on the score was made before the piece was completed. For some time I considered ways of adding text to suggest different ways to approach that notation. Ultimately, I decided that doing so would only cloud matters and possibly make it seem as if there was a piece to be had in performance which could come about in a way separate from this confrontation between score and performer.

My reasoning for leaving the score as-is was that any sympathetic performer would be at least as intelligent as I and fully capable of realising all of the suggestions that I could have given them, along with many other possibilities. I am glad that this reasoning has been proven in performance.

Taylan Susam wrote to me:

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206 This version of *superstition's willing victim* is included in my portfolio in the set of one page scores.

"I spent this afternoon with your piece "wyoming snow". It's been a few years since you sent it to me and it has made me think every time I looked at it. I wanted to find a way to systematically deal with the abundance of possibilities. This is what I did:

1) I counted the staff lines, there were 37

2) I counted the points at which notes occur horizontally (sometimes there are 'chords'), there were 57 points containing 75 notes in total

3) I decided that I would assign each note a place on a staff. I thought three leger lines above and three ledger below the staff would be fair, considering I was planning to play the piece on my clarinet. This gave me 37-(6+3+3) - that is to say, 26 staves 'hidden' in the score.

4) I generated 75 random numbers between 1 and 26. That number would indicate the highest note on the staff, the third ledger line (e5 or e''). Notes that did not fall on the generated staff, meant a rest. Accidentals were kept in place.

5) I wrote a score for myself.

6) I played it and recorded it. I did not play all the rests in proportion, since I didn't want to determine a pulse (I just took the whole note in the score to mean "long or very long tone".) Maybe there's a better way to do this and I will probably continue to do different versions.

I think it would be great to play it with an ensemble."[207]

The one other time the piece was performed (to my knowledge), it was performed by an ensemble: Manfred Werder's ensemble, Incidental Music. About this performance, Manfred wrote the following:

"we've had a very good time with your wyoming snow. we rehearsed some different strategies through the score, and decided then for the performance that everyone would go for his/her own way, which produced a rather heterogeneous soundscape of about 20 minutes - including melodies, microtonalities, dynamics from almost inaudible to gentle phrasing, or once a beautifully accidental unison of violin and viola. just a kind of beautiful

207 email correspondence, 23/5/11

and affirmative playing without stressing things in one or the other direction." [208]

The success of this piece has made me want to further pursue this way of working, but I do not want to force it. I feel that it is a rarity for such pieces to be successful, and I would only like to make them when I feel that something truly new may be explored in their realisation.

4.3: Three Trios: A Case of Subtraction

These three trios (*Trio 2007*, *Trio 2008(a)*, and *Trio 2008(b)*) are related to one another in that each one followed directly from the last by way of a subtractive process. While it could be possible in some instances for a performance of any of these three to have the same perceived structure as another, the requirements for the performers are different in each.

Trio 2008(a) was composed as a sort of mistake. I was explaining *Trio 2007* to a group at a rehearsal without the score present. When I returned home and looked at the score, I realised that I had neglected to tell them one of the requirements of the piece laid out in the score. However, I felt that leaving this out also made for an interesting, though different, performance dynamic worthy of a new composition. Upon completing this new score for *Trio 2008(a)*, I decided to take some of the elements of the piece one step further by eliminating further constraints for performer coordination in the composition of *Trio 2008(b)*.

4.4: *how the face veil is worn*

how the face veil is worn was composed at the invitation of Zinc & Copper Works[209] for a concert program entitled "Tubes of Babel", consisting of pieces involving the relationship between brass playing and the voice. As a performer, I largely play string, percussion, and occasionally wind instruments. The mechanics of brass playing are comparatively more mysterious to me. With this in mind, it occurred to me that the voice is largely involved in the pedagogy of brass playing. While this is true of other instruments as well, I can easily see what a string player is doing to produce a sound, and I cannot do so with a brass player; many aspects of the sound production are hidden. Having the players talk about this lays the subject bare, but also disrupts the learned process through which notation is immediately translated to sound production by introducing an intermediary step within peformance.

The trio is made up of virtuoso players largely dedicated to the exploration of microtonality.

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208 email correspondence, 23/4/09
209 Daniel Plöger, for whom I had previously composed *Seven Minutes for Trombonist*, was a member of the ensemble.

I wanted to give the performers a chance to utilise these specific abilities, but was also conscious of making a piece that would be playable by people with a wide range of abilities. Thus, it is written in a manner that allows for differing methods of sound production. In each case, a small amount of traditional musical experience is required to be able to interpret the sections of the score notated with a traditional note/staff system.

Zinc & Copper Works, in collaboration with instrument manufacturers, are developing the tuba and horn to accommodate the playing of microtonal music by adding valves to the instruments, interchangeable slides, etc. They provided me with a tuning chart delineating what these new instruments are capable of, written in Helmholtz-Ellis notation. However, I was told that a new horn being used by the group would not yet be fitted with certain valves to allow for some of these tunings at the time of the planned performance. This, along with a desire to keep the piece open for other performers, led to the use of the present notation which combines standard notation with a text instruction that the tones may be played +/- 50 cents from equal temperament, which would allow for the tunings specified on the charts without requiring the Helmholtz-Ellis notation, as well as tunings thus far not delineated by a particular notational practice. In this way, the abilities of the new horn could be utilised when available, but are not required.

While all players have the same notation to work with, the way in which they would interpret it is different by necessity, due to the different instruments played by each member. I did not prescribe the spoken part, because I do not know the brass terminology, and because of the multiple possibilities with which each note may be played, especially as the instruments are continually being developed. I was pleased that the players took such initiative in interpreting this simple instruction, making the piece something far different, greater, and more beautiful than I had originally imagined. They told me that they enjoyed playing the piece, and it seems that much of what they enjoyed came from elements within the performance of their own making that no other performers would have done in the same way.

4.5: *fidelity... like snowflakes or fingerprints*

I dislike writing program notes. I feel that a concert is a listening and not a reading situation. However, with the right request, I will sometimes write a note. The following is what I wrote for *fidelity...*:

"Line is an expression of fidelity, not only as mathematical concept, but also in the physical world, being established through drawing; inscribing; making a mark. The line is recognised by that which it divides, or through points of intersection; made apparent by the marking of that which is not the line, but would not be if not for the line. The line itself,

however, exists only in one dimension – as limited as a thing may be, but also potentially infinite – as long as one wishes to measure; as long as one wishes to uphold this fidelity. In this way, the line is always new. It does not back-track. It simply progresses; unending exploration of one dimension in one direction.

Within music, we only have one dimension to explore: time. The question here is how to explore this one dimension with the same fidelity as the line. This piece is my attempt at that. There are no mile markers, simply the placing of the hands on the piano's keyboard."

I think this note describes much about what the piece means to me, but little about how the score is constructed, and why it is notated as it is and not in another way.

For some time before writing this piece, I had wanted to use "etc." as a notation in a score. As readers, we have an understanding of what this abbreviation means when used in a text, but what would it mean when paired with non-text notation? Some words and abbreviations are readily paired with staff notation. It seems to me that this could be one of those, but it so far is not used, so its meaning in that context is unclear.

Tom Johnson's *Infinite Melodies* are conceptually similar in a musical way – a musical example of the melody is given in staff notation, it is explained in text, and this text also indicates how the melody may be expanded upon and transposed to be played on any melodic instrument. My motivation with this piece was similar in some ways to Johnson's, but very different in others; how could I give an instruction on how to carry out a musical process that would be different not based on what instrument it would be played on, but on who might play it, when, and where?

While no instructions are given as to how this should be carried out, I hope that the entire score speaks for itself, with each and every element informing performance. So far this has proven to be the case, and performers (Philip Thomas and Sam Sfirri have both performed the piece. Philip's performance is on the accompanying CD) have had no questions or concerns about anything which the score does not provide.

The title itself comprises the bulk of the text on the page. "Fidelity" has many meanings – what does one make of those meanings when the word is paired with "snowflakes" and "fingerprints"? Both seem to suggest a lightness, an ephemeral existence, and the possibility for close scrutiny. However, they are also very different things from one another.

On the staff, there is very little "material". I had first thought of providing much more (as Tom Johnson does), but realised that for maximum clarity, one single chord would suffice. The dotted half-note duration was written simultaneously with the pitches. I chose to keep it for two reasons: The first being that it focuses the eye and the mind. [210] My second reason is that it is not

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210 As Christian Wolff wrote about Morton Feldman's *Piano Piece 1952*, the composer made every pitch, "a *dotted quarter* – to make the player pay a little bit more attention" - Wolff, Christian, *Cues: Writings and Conversations*, Cologne: Music Texte (1998), p.370

a whole note in any way. No time-signature is given, so there is nothing for it to fill; it suggests partiality, counting/measuring towards a whole which does not exist (at least not on the page).

The most simple question to ask about why the score is written this way is "why not repeats?" This method of writing out the chord anew each time it appears addresses two things which repeats cannot: First, it puts focus on each new event having its own place in time, existing as its own musical moment, never as a reproduction or reiteration of an earlier event, and, secondly, it puts similar focus on the physical action needed to carry out each event. Jürg Frey has made a similar observation regarding his piece *Wen XXVII*:

> "[...] if I notate three hundred successive crochets, the piece becomes a sort of 'sound trace'. After all, I could simply write one crochet and behind it: repeat three hundred times. But I feel that this way my work takes me through time as well. You pace off a piece of sound architecture; suddenly a note stops, you move through a rest, then a new sound follows."[211]

I think that "etc." also conveys this feeling of newness, which Frey suggests the writing out of repeated notes does also. This is something like how "etc." functions in a literary list. For example, "bears, koalas, dogs, ferrets, mice, deer, etc." lets us know that the next thing to follow will be unique but also posses a shared set of qualities with all that came before it, no one member of the list being a better example of what is given than another.

However, "etc." also has the function of suggesting a spooling out into the future, and quite often, infinity. It is this double function that intrigues me the most: a limited but infinite set continually renewed by unique members.

4.6: *piece for 12 saxophone players*

This piece was composed for the University of Huddersfield saxophone ensemble, a group consisting of players ranging from undergraduate non-specialists to staff and other professional saxophone players. It was my intention for the title to reflect this possible diversity; it is a piece for people who can play the saxophone, not for specialist "saxophonists". This is also why any player can play whatever instrument from the family they are comfortable with. I designed the piece to work equally well with different distributions of the saxophone instruments.

Twelve players are specifically called for as a reflection of the structure of the piece. Each player carries out the same tasks, but at different times. As they move independently through the

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211 From liner notes to Frey, Jürg, *Klaviermusik 1978 – 2001*, EWR 0201, Berlin: Edition Wandelweiser Records (2002)

notation on the second page, there is a possibility from every sonority between group unison and all twelve chromatic pitches sounding. With one player more or less, these probabilities would be off, as would a sense of equality between players in how the notation is approached.

In performance, players worked only off of what is now the second page of the score, and instructions that I provided during rehearsals. Only after the performance (a recorded excerpt is on the accompanying CD) did I write what is now the first page. I chose to handle the piece as such, as I was still discovering what was essential to the piece as a generic entity in the rehearsals in contrast to what was unique to the needs of that particular ensemble. For instance, during the performance, a clock was used to help players coordinate and pace their actions. A time limit of 45 minutes was chosen for this performance. However, I think it would be possible for players to coordinate their actions without a clock. It is also quite likely that a different duration would be appropriate for a different ensemble, as this length was chosen in part by having players play through the material without reference to a clock and then averaging what seemed to be their natural, breath-based, pacing.

The piece is unique in my portfolio in that it is a curious mix between the very specific and the very portable. It requires twelve people who can play the saxophone – an unusual demand – but within that limit is very open. The entire range of the instrument is used, so that the entire range of whatever ensemble plays it will be represented. Further, unless pains were taken by a group to assemble specialised very high and low saxophones, each player's part will overlap in range with every other player's part, so that no one player need always be the high, middle, or low voice of the resultant harmony, regardless of choice of instrument.

After the performance, I was pleased to learn that some players had used the score not only as a set of instructions for their own actions, but also as a means of coordination. Since all of the needed information for performance is on one page and always visible, a player may quickly determine where any other player is within the part and choose to establish or avoid certain harmonic or melodic relationships. As each player has this option and ability, an amount of control is available to each which would not be present in many other pieces. However, as each will make individual decisions, and over-all aspect of indeterminacy is maintained.

4.7: *kathryn of birmingham*

This piece was written at the request of Rhodri Davies. For the past few years, Rhodri has been almost exclusively performing pieces written especially for him. He and I had a number of meetings and conversations about how to tackle this process and what I should include in a piece for him. Through this, it became clear that he was looking for not just new music, but a new musical experience – something unlike what was in any piece he had previously performed, not

only musically, but also in the manner of physical performance.

This turned my focus onto ways to excite the strings of the harp. Rhodri plays many different types of harp, but on the concert this piece was prepared for, he was going to he playing his specially modified electric harp which he lays horizontally on a table[212]. I had considered placing dry ice on the strings[213] (this proved to be too complicated and expensive), pouring rice over the strings (this was ruled out as being too similar to the pouring of tea leaves over the harp strings in Catherine Kontz's *tea ceremony* which was also written for Davies), and wind-up toys (ruled out, as wind-up toys were already being used to perform Ben Patterson's *Pages to Save Our Planet*, which was going to be performed alongside my new piece).

While shopping for various things to try out on the harp, I saw a ball of twine, and the solution to the piece immediately occurred to me. I have previously performed James Tenney's *(night)* within ensembles by pulling string or yarn wound through the strings of the double bass. Tenney's piece does not call for this, but it was my solution to his score. This is the most concrete example in my compositional output of performance of one piece of music influencing the composition of another.

One of the integral aspects of this piece that had not been the case when performing *(night)* within fixed ensembles was duration. Duration is a direct outcome of the performer's physical actions in combination with the chosen material; the speed of pulling, the tension provided by whatever instrument and material is used, the length of the twine/yarn/etc. This is a machinic process, not only in form and structure, but literally in relation between performer and instrument. [214]

Another important aspect of the piece is the koan-like instruction to pull the twine through the strings of the harp "at a slow and steady rate", "as smoothly as possible". This type of instruction is infinitely explorable – there is no right or wrong way to do this, but only various levels of refinement in different directions; the faster the twine is pulled, the more smoothly it moves. To slow down a physical motion while keeping its rate steady is a musical challenge that I have not seen posed by any other piece, and one for which there will never be an absolute solution apart from a performer's physical and mental limitations. I see this as being similar to James Tenney's quintessential experimental *Swell Piece*, which asks for "as little change of pitch or timbre as possible, in spite of intensity [dynamic] changes."[215]

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212 This piece was written with this instrument in mind, but I was told that it could work on any type of harp. It has been performed on concert harp, and the accompanying recording was made on a concert harp

213 As the electric harp has metal strings, the dry ice would react with the strings, causing them to resonate. This effect has been demonstrated in music by composer/performer Liam Mooney, most effectively in his piece *Sublimation* (published in Orsher, J., So, M., and Roberts, S., ed., *Every Body Loves Difficult Music*, Los Angeles: Machine Project (2007), p.19), the first performance of which I took part.

214 "Process music is not teleological music. It is, in a sense, instead, "turn on the machine and we'll see where we end up" music. This is indeed a most experimental way of thinking." - Landy, Leigh, *What's the Matter with Today's Experimental Music? : Organized Sound Too Rarely Heard (Contemporary Music Studies ; v. 4)*, Chur, Switzerland: Harwood Academic Publishers (1991), p.86

215 This score was never formally published, but is available along with the other "Postal Pieces" (including "(night)") in Garland, Peter, ed., *Soundings Vol. 13: The Music of James* Tenney, Santa Fe, NM, USA: Soundings Press (1984)

Indeed, between the first two performances of *kathryn of birmingham* that I heard (once on a live recording, and once when I was in attendance), the performance had become longer; from roughly 3 minutes, to about 8. Rhodri Davies told me that the more the piece is played with the same twine, the structure of the twine changes due to friction with the strings, making each new performance a unique performative experience. At the next performance I heard (the accompanying recording was made on the same day), I was surprised that the piece had become considerably shorter. I asked if this was because it was being played on the concert harp instead of the electric harp and required a different technique. That was not the case, but it was rather that Rhodri's wife had used a portion of the string to hang up Christmas cards in their house some months earlier.

From an aural perspective, I find the result surprising and very enjoyable – the sounds drawn from the harp are very different from those of the double-bass, and the end of the piece produces a sort of melody as the twine slightly brushes each individual string as the frayed end is pulled through – something which I had not considered, but a natural musical outcome of the process. This suggests to me the possibility of trying out other techniques developed for one instrument on another they have not been used on – the fact that the physical transposition may not equal a sonic equivalent may be viewed as a positive experiment in indeterminacy.

4.8: *27 Events for Clarinetist*

This piece was written at the request of Pat Allison, who is both a performer and composer. I wanted to compose a piece which would not be like Pat's compositions, but would respect his interest in the physicality of performance which his compositions demonstrate.

Jürg Frey wrote the following to me about the piece:

> "Thanks for this interesting piece. I tried to play, and a very beautiful and strange melody appears! Of course, one could translate the piece in the mind to "normal" playing/notation and dynamic level, but what a different result. Your notation gives a sensitive music and some kind of fresh and fragile sound quality." [216]

This comment pleased me for multiple reasons. The primary reason being the recognition that a different type of notation would result in a different experience for the performer. What interests me most about this is that the performer's choices based on my notation would lead to different results in this "translation" to other notations, which Jürg also suggests would translate to different ways of playing. I suspect that other players would not encounter what they would

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216 email correspondence, 12/09/09

characterise as melody when playing this piece, though I imagine their experience would be similar in spirit.

4.9: *a round*

It was my intention for this piece to be performable by any players wishing to take it up, regardless of instrumentation or experience. I am curious about how different performers may interpret words as open as "sound" and "action". In my experience performing the piece, [217] the group discussed and collectively determined what the restrictions would be for interpreting these words during rehearsal.

Regarding the notation, my motivation was to treat numerals simultaneously in two different ways. Here, they not only act as signifiers for separate sounds/actions, but also continue to represent quantitative numbers.

I have tried many times to solicit responses from performers about my work. However, I have found that when prompted, performers don't give as upfront of responses as they do when sending unprompted commentary. It is these unsolicited responses which are the most revealing. One of the most rewarding of these was the following from Tim Parkinson, following our performance of *a round* in London:

> "i keep forgetting to tell you that the next day when i went to teach at christchurch primary school, i taught someone called oscar who is 8 who told me that yesterday he had played Halloween March in the school concert, so i showed him what i had played in my concert yesterday and it was your piece, so i remembered the numbers and told him what i'd done for each number and he was very excited and thought the inside piano stuff sounded brilliant, so he came up with things for each number himself. So i told him it was called "A Round" and he understood immediately and said 'does that mean you have to play as well?' so then we did a miniature performance of it together. I said it was by a composer called Joseph Kudirka and he said 'what nationality is he?' and I said 'American' and he said something like 'lot's of good music comes from America.'" [218]

While I often consider that anyone may play a piece of mine, and make the scores accordingly accessible, in practice it is rare that musicians outside of academia or the professional music cultures take them up. For that reason, it is pleasing to know that a child not only was able to understand a piece of mine, but would also enjoy performing it.

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217 This was for the UK premiere, with a group consisting of Angharad Davies, Tim Parkinson, John Lely, Gary
     Schultz, and myself, the recording of which is on the accompanying CD.
218 email correspondence, 13/07/10

Of further interest regarding this anecdote is the fact that Tim didn't have my original score with him, but only the numbers he had written down to read from in performance. I think it is a success when a piece can be described with minimal instruction and be clearly understood, as this establishes that the piece has a clear identity as an entity outside of a score prepared by one person. I am also heartened by the fact that the title of the piece was able to work as one of these instructions.

4.10: *kids in sandbox* and *long cadence*

Mark So is a friend of mine, and a frequent musical collaborator when I lived in Los Angeles earlier this decade. We have played many pieces together, both those written by us, and those of other composers. By making this piece "to, for, and of Mark So", I am addressing him in three different ways. The piece is "to" him, insofar as it is addressed to him; I would not have composed this piece without my knowledge of his work. It is "for" him both as a sort of gift, and for him to perform. Most interestingly, it is "of" him, in that the elements presented in the score are derived from his pieces, specifically his "Ashbery Series", a series of pieces (several hundred) which are inspired by the poetry of John Ashbery.

It is not that the exact wording comes from So's scores, though all envelopes and types of sound given are used within many of his pieces. For instance, *a present that is elsewhere* contains the following: "the field recording fades in to a moderately soft level (just loud enough to permeate the performance space), sustains for a very long time, then gradually fades to nothing near its end."[219] *El Ray* states that, "activities may overlap in any way."[220] *non-lieu (18 musics after Judith Jockel)* is "[to Joseph Kudirka]" and includes notations such as, "air, water, leaves (not dry), or similar; any sounds or combination of sounds; very soft, occasionally occurring in the background", and, "water sounds, sustained very quietly a few times; occasionally, brief rustling of vegetation or similar."[221] Assembling some of these different elements in "kids in sandbox" was an attempt to make a sort of meta-piece which would be similar to some of these pieces, but also have a unique identity by way of what it excludes from So's scores.

What interests me the most in the notation of both So and this piece of mine is the indication for duration of "a long time". In *In this night like rotten mayonaise*, So gives the duration as "for a long time, perhaps 15'- 20' or longer."[222] The duration of *a darkness of one's own* is "for a very long time (15 minutes or perhaps much more)."[223] It is curious that "a very long time" may be shorter than "a long time", but both are dependent on context. That was also my intention with "kids in

219 So, Mark, *a present that is elsewhere*, self published (2007)
220 So, Mark, *El Ray*, self published (2007)
221 So, Mark, *non-lieu (18 musics after Judith Jockel)*, self published (2007)
222 So, Mark, *In this night like rotten mayonaise*, self published (2009)
223 So, Mark, *a darkness of one's own*, self published (2007)

sandbox".

The first performance (the first version on the accompanying CD) was performed by six musicians, using violins (2), oscillators (2), a radio, and a bowl of water. Considering the physical acts the performers – especially the violinists – had to carry out, sixteen minutes was "a long time." When I was organising a version for multichannel computer playback (the second version on the CD), forty-five minutes was deemed to be "a long time" because of the amount of time available for the performance.

It was the production of this performance of *kids in sandbox* in 2008 which led me to compose *long cadence* the following year. Both were brought about when I was asked if I would like to contribute to multichannel concert events at The University of Huddersfield. I selected "kids in sandbox" to perform in this way, because it seemed that a computer could carry out many of the possible tasks in the score very well, though I had not considered this possibility when composing the piece. The playback was carried out by Max/MSP, programmed by myself with some assistance from Scott Hewitt and Dr. P.A. Tremblay.

Pleased with the result of this performance of *kids in sandbox*, when the same invitation came the next year, I had an idea about what would work in such a situation. While I did want to make a piece which would rely on multichannel electronic playback/sound generation, I also wanted to avoid making a piece which would rely neither on a specific hardware or software configuration nor a certain spatial requirement. I would like for *long cadence* to be performable in many different locations with many different types of equipment. While producing the performance at Huddersfield (the recording of which is on the accompanying CD), I was making performance notes for myself for what to program into the software. This was informed, in part, on what the available hardware was capable of (maximum number of channels, frequency response of available speakers, etc.). However, the conception of the piece came before getting these exact details. Only later, well after the initial performance, did I make a score which anyone could follow to realise a unique instance of the piece.

4.11: Hammer Pieces:

Accordion(s)
Bowed Instrument(s)
Clarinets
Clarinets II
Tubas

This is a collection of pieces written for a commission between Machine Project and the Hammer Museum, in Los Angeles. One of the rare things about these pieces is the limits I was given. All pieces were to last between thirty seconds and two minutes. I was also given ensembles to write for: two violins, two tubas, two accordions, and two clarinets (each also possibly doubling bass clarinet).

Prior to writing these pieces, any time I had been given such constraints, I had known the players personally, which was not the case here. So, I had to approach the composition from a point of considering the instruments themselves and the time constraints provided. Due to this, I think the set provides a unique example of how I conceive of pieces in relationship to what is notated, as this differs in each piece to some extent.

In the end, the piece for tubas was the only one of the set to be written exclusively for the given instrumentation. It is assumed that the actions carried out by the players would place a performance of the piece within the given time constraint. In contrast, the piece I conceived of as a violin duet, I realised could be done equally well by any number of players on any bowed instrument(s). Rather than placing a false restriction on the piece through notation by specifying that it be a violin duet, I chose to score it as it now appears. The piece for accordion(s) is similar, though the instrument is specified. I composed two pieces for clarinet, as both occurred to me while composing, and neither seemed better than the other. Each can be done by two or more players, and like the piece for tubas, the duration will be within the given time limit if played as a duet. In these varied ways, each piece conforms to the remit of the commission, though no one score overtly specifies all that I was asked to include and consider. I also chose to link all of the piece through a uniform titling scheme, where each title simply reflects the instrument(s) that the piece is composed for.

What all of the pieces do have in common (at least when played as duets or larger groupings) is sharing; not just the sharing of instruments, but the sharing of musical thoughts between performers. In each case, before performing, the players have activities to carry out together. Making this a requirement to a piece likely would not have been as important to me when composing for players who I know, as I would know something about what each thought and how they would work together. However, in this case, I feel that it is important that performers have a discussion about what is to be done before any sound is produced.

4.12: LeWitt Pieces:

Wall Drawing 142
Wall Drawing 901

These two pieces were written for the occasion of a performance by the Edges Ensemble at the Site Gallery, in Sheffield, in May, 2010, during an exhibition of one of Sol Lewitt's Wall Drawings, and a collection of his books.

Rather than compose works somehow inspired by LeWitt's work, I thought it would be more interesting to try to "translate" some of his works into musical scores. What interests me so much about LeWitt's work is that it is much like music in how it is carried out: the artist makes instructions – a sort of score – which he or others carry out to install a work in a certain location. If the work is moved, this process is carried out again. It is not only this that intrigues me about LeWitt's work, but also the similarity to my work in how the final result of a piece is contingent on a given space and available materials, with the instructions allowing for such variation.

This process of translation could not be completely direct, as the original works are fixed in place and time, and musical performance is temporal by nature. Furthermore, there are no direct translations possible between exact visual elements and musical elements. None the less, LeWitt's instructions are indeterminate enough in some cases that they seem to have a certain affinity with inherently indeterminate musical elements. Considering this, I chose two of LeWitt's drawings to make scores from:[224]

Wall Drawing 142

A 10-inch (25 cm) grid covering the wall. An increasing number of vertical not straight lines from the left side and horizontal not straight lines from bottom to top, adding one line per row of the grid. All lines are spaced evenly based on the number of lines, filling the last row of each direction.

June 1972

Wall Drawing 901

Color bands and black blob. The wall is divided vertically into six equal bands; red; yellow; blue; orange; purple; green.In the center is a black glossy blob.

May 1999

In neither of these cases did I attempt to treat my compositions as corollaries to the drawings, but rather as works derived from the instructions for the drawings. That is, drawing ≠ piece, but rather instruction = score. In each case, this was done differently. In my *Wall Drawing 142*, I chose to treat horizontal and vertical space much as it is treated in a traditional musical score, whereas this relationship was ignored in *Wall Drawing 901* in favour of a different translation

224 Drawing instructions may be found on the MassMoca website: http://www.massmoca.org/

which I felt would make for a better piece.

4.13: Two Ensemble Pieces:

Beauty and Industry
ravens, rooks, and crows

I composed *Beauty and Industry* after composing the pieces *for any number of keyboard instruments*, *for any number of fretted string instruments*, and *for any number of wind instruments*. I wondered what a piece may be that would simply be "for any number of any instruments". Thinking on this, I established "rules" that could accommodate almost all acoustic instruments that I could think of, each rule being related to either the physical properties of the player/instrument interface, or the physics of the sounds produced by these interactions. It was also my intention that the piece be performable by an ensemble made up of any players, regardless of any individual member's experience or ability with their given instrument.

I made a few drafts of the score after rehearsing it with the Edges Ensemble, but decided on using my original as the final product. The changes I had made made reference to abstract musical aspects such as dynamics, and it felt to me that these things had little to do with actions based on absolutes: the length of a breath, a decaying cymbal, etc. This being said, aspects such as dynamics and timbre are worked out in rehearsal, and – in my experience – mostly as a collective process achieved by individuals making changes while playing and between instances of playing.

While composing *ravens, rooks, and crows*, I was not thinking of it has a companion piece to *Beauty and Industry*, though the two pieces do have much in common. Both pieces can be played by any group, regardless of available instruments or specialised musical abilities of the performers. Like *Beauty and Industry*, it can also be prepared for performance very quickly by an ensemble after first encountering the score or having the piece described to them. It was however inspired by another existing piece, James Tenney's *Swell Piece*.

When the Edges Ensemble performed *Swell Piece*, I was bothered by the compromises (tremolo, for plucked strings or percussion) that had to be carried out by some performers to participate. I think the piece is best when done solely with sustaining instruments. The question I posed to myself was how one could compose a piece involving the idea of a swell in a way that wasn't limited to sustaining instruments. My solution was to make the swell not dynamic, but rhythmic. Whereas in *Swell Piece*, the choice of pitches is always free, I felt it best to restrict the

sounds used as is the case in *Swell Piece no. 2* and *Swell Piece no. 3*. Doing so also allows players to more easily coordinate their limited actions, as each sound within the ensemble – and therefore each player – can be identified within a short period of time.

4.14: Two Pieces for Anton

Anton Lukoszevieze plays the 'cello, but I think I would not describe him as a 'cellist – at least not first and foremost. He is a performer who makes each piece he plays his own, whether played with a chair, a newspaper, or a 'cello. However, given the opportunity to compose a piece for him, it seemed in some ways a shame to not write a piece specifically for the 'cello, as he is such a capable player.

My intention with *Violoncello* was to compose a piece which would engage the performer both physically and mentally in a related way. Thus, each decision that the performer makes about either the physical aspect of playing and or the musical arrangement of the given open elements will have an effect on the other. That is, choosing to play a note in one position will limit whether or not a given dyad is to be played as a melodic figure or double stop. Further, the physical position of the hand for any note is open to a degree and has a relationship to the tuning, which may be altered within a given performance, either purposefully or accidentally. Composer/'cellist Stefan Thut remarked about this when I sent him the score:

> "Recently i have played through your 'violoncello': what i liked very much was your approach in the use of doublestops in 'any tuning'. The fact having a grip ready and not changing or adjusting anything in the resulting sound!"[225]

I am pleased that this intention was perceptible without needing to be explicitly addressed in the score, for – despite containing pitches – the notation is one for various possible physical actions and not for sounds, per se.

After performing *Violoncello*, Anton asked if I would write a piece for him to play which used the BACH bow, a type of bow which allows for the simultaneous bowing of up to four strings. It was my intention with this piece, *Vincas/81*, to utilise aspects of the previous piece which were successful, and to do away with those which may be hurdles to performance. While more aspects are open to a performer's choices, the elements which are fixed remain steady throughout the score, whereas, in the previous piece, many elements existed within a continuum between the fixed and the open. As such, while the latter piece is more open in some ways, I think it is also

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225 email correspondence, 30/05/10

more coherent.

I chose to use a tablature notation to indicate physical actions for the performer. However, as some elements of these actions are open, I had to combine this with a notation which was also indeterminate. I decided to use symbols from other notations within the tablature, both because they are familiar and recognisable, and because the diamond is used for the same meaning (harmonic) in multiple notations. No indications are given within the tablature for bowing. This is because that is at the performer's discretion, though this choice may have been informed by the fact that there are as yet no standardised notation for bowings with the BACH bogen.

The title is also reflective of this dichotomy between personal and set elements. 'Vincas' is in reference to Vincas Kudirka, a Lithuanian patriot, composer, and 'cellist (Anton is especially interested in his Lithuanian heritage), and the number of chords enumerated in tablature (there are 81 – every possible combination of the three differing finger pressures across the four strings).

4.15: Three Pieces for Voice(s)

4.15.1: *Renascence*

This was my first attempt at writing a piece for a singer. There were a number of practical factors that were considered as the piece was developing. I pitched the idea of a piece for Thomas Buckner as my contribution to the Ostrava Days 2009 festival, and after conversations between Buckner, myself, and festival music director Petr Kotik, it was accepted. Practical concerns for the piece involved it being able to be fully rehearsed within the week prior to the concert, as this would be the only time that Buckner and the ensemble would be together in the same place. In part, due to the busy rehearsal schedule, I decided to leave the number and type of players providing accompaniment open, as it would allow for players from the larger group to give the piece a "yea" or "nay" to their participation based not only on whether or not they liked the piece (while a musical director had chosen to program it, I still wanted – as I always do – for the performers to be involved willingly), but also on whether or not they had time for rehearsals (Buckner had seen his part earlier, and he and I had a few days to discuss the work before the other players arrived).

My real interest in the soloist/accompaniment situation that exists in the piece was a result of asking myself the question, "how can a soloist/accompanist relationship exist in a way that is both musically and politically (that is, socially; micro-politics) contemporary? How can this relationship exist outside of a hierarchical system?" There are musical problems which make the relationship necessary; that is, in many ways, especially when working with a text, strict equality is impossible. For one, the sound of the voice is psychologically distracting, and the ear is drawn to language as a focus. An instrumental performer has no way of communicating in the way that a

singer can, because of language.

One solution would have been to provide musical material that was as much its own as the vocal material is and to simply present the two simultaneously. This is a proven method when dealing with voice and instruments which can provide interesting results [226], but did not provide a solution to exploring the social aspect. In *Renascence*, by simply asking players to provide "accompaniment", they are left to define what this means for them singly and as a group – that is, players have the power to determine in many aspects what their relationship to the soloist is. I think this is also an effective notation, as it allows for infinite change between performances and into the future. It cannot be superseded by a new meaning of "accompaniment".

Here, both types of players (soloist and accompanists) have control over different elements of the piece, both of which are needed to make a complete performance. The accompanists are responsible for all of the non-vocal musical material. They define the musical environment in terms of harmony, rhythm, etc., and determine when the voice will be the focus. The soloist is in control of the overall musical pacing and duration of the performance. It is s/he who begins new sections, determining when a section marked with a fermata moves to a section including voice.

One thing that all participants have in common is the score. All read from the same score; no one possesses any special knowledge or opportunities in that respect. The structure and confinements of the piece are visible to all. The way the words are fit to the melody is for the singer to determine, while any influence these words and the melodic structure may have over what the instrumentalists play is possible.

The general conception of the score was mine, though I gave Thomas Buckner some scope to choose the font and font size from a few examples that I sent him. Since most of the notation is made up of text and numerals, I felt it important that the other information on the page, such as page numbers, be distinct in size and font. This is also why the numerals to the left of the sung text are both circled and of a different font and font size to that of the text. I also considered it important that the score be as useful to the accompanists as the soloist. Though bound in the portfolio, I have presented the score to performers as loose sheets so they can be arranged freely during performance, and so that the first page can be visible if/when needed for reference.

There are some commonalities between this piece and the "collective spontaneous music making"[227] that Robert Ashley employs in his operas (lack of precise material given to all players reading from text) which have not been greatly explored by other composers. More important to me – and something which does not exist in Ashley's work – is the exploration of the meaning and role of "accompaniment". In this case, I think much was achieved in this regard. All of the players

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226 The most successful instance of this, in my mind, is Christian Wolff's *Hoelderlin Marginalia*, which superimposes recorded readings of the poem of the same name by John Ashbery with music composed with the poem in mind. As the poem is read twice, there is a possibility to shift focus between the words and instrumental sounds without losing a sense of the language overall.

227 Thomas Buckner is a longtime member of the Robert Ashley opera company, and this term and information come from conversations with him.

featured on the accompanying recording from the concert in Ostrava made their parts out of their own volition, and very little discussion was needed to get them to play together and with the soloist.

4.15.2: *BARACK - - KILLED (CAYLEE) !!*

This piece, like many others in the experimental music canon[228], is based on a non-poetic found text[229]. That in itself is not particularly noteworthy. Looking at this text, it struck me that it could be read much like a coded musical notation. Rather than adding any musical elements to the found text, I simply developed a way in which to read what already existed as a score. Here is the original text, as I discovered it:

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Subject: BARACK -- KILLED (CAYLEE)!!

BARACK -- (& CAYLEE-ANTHONY)!!
==========================================

THE WORSE AND
SADDEST STORY THATS
GOING ON IN AMERICA
RIGHT NOW IS:

THE CASEY ANTHONY
CASE!!

AND THIS IS A PICTURE
OF CASEY ANTHONY!!

AND MOST PEOPLE
BELIEVE THAT:

CASEY ANTHONY WAS
WICKED ENOUGH TO
KILL HER OWN
LITTLE DAUGHTER!!

AND:
HER DAUGHTER's
NAME WAS CAYLEE!!

AND:
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228 One example already referenced many times in this work is Christian Wolff's *Changing the System*

229 This text can be found in numerous locations on the internet. However, in each case the author's name has been censored, so I cannot give attribution.

THIS IS A PICTURE
OF HER!!

AND THIS CUTE LITTLE
GIRL HAD BEEN
MISSING SINCE:
JUNE OF 2008!!

AND HER BODY WAS
NOT FOUND UNTIL:
DECEMBER 2008!!

AND THIS LITTLE GIRL
NAMED CAYLEE,

SHE WAS FINALLY
FOUND DEAD INSIDE
OF A:
BODY-BAG!!

AND HER FLESH WAS
NOT FOUND!!

BUT:
ONLY HER SKULL
AND HER BONES
WERE FOUND!

AND SHE HAD BEEN
KILLED AND WRAPPED
IN A:
WINNIE THE
POOH-BLANKET!!

AND:
MANY MANY PEOPLE
ARE SAYING THAT
CASEY ANTHONY
KILLED HER OWN

LITTLE GIRL!!

AND THAT:
CASEY ANTHONY IS
EVIL AND NEEDS TO
GO TO PRISON!!

BUT I SAY THAT:
BARACK OBAMA,
THE ANTI-CHRIST IS
THE ONE THAT NEEDS
TO GO TO PRISON!!

FOR THE MURDER OF
LITTLE:
CAYLEE ANTHONY!!

BECAUSE HE USES HIS
(B. O.) MARK OF
THE BEAST!!

TO POSSESS THE
MINDS OF PEOPLE!!

TO CAUSE THEM TO
DO EVIL, DUMB,
CRAZY AND VIOLENT
THINGS!!

SO LETS TAKE A
LOOK AT THE
THREE (3) REAL
FACTS!!

ABOUT THE:
CASEY ANTHONY
CASE!!

FACT (# 1)!!

HER LITTLE GIRL's
BODY WAS FOUND
DEAD IN A:
BODY-BAG!!

AND THE WORD:
BODY-BAG
SURELY HAS:
THE LETTERS (B. O.)
IN IT TOO!!

AND (B. O.) IS THE
MARK OF THE BEAST
NAMED:
BARACK OBAMA!!

FACT (# 2)!!

BY THE TIME THIS
LITTLE GIRL's BODY
WAS FOUND,

THERE WAS NO
FLESH ON HER!!

BUT THEY ONLY
FOUND:
HER BONES!!

AND THE WORD:
(BONES) SURELY
HAS THE LETTERS
(B. O.) IN
IT TOO!!

AND:
(B. O.) IS THE
MARK OF THE BEAST
NAMED:
BARACK OBAMA!!

AND LAST BUT NOT
LEAST!!

HERE IS:
FACT (# 3)!!

THIS LITTLE GIRL'S
BODY WAS FOUND!!

AND IT HAD BEEN:
WRAPPED IN A
WINNIE THE
POOH-BLANKET!!

NOT A CINDERELLA
BLANKET!!

BUT A WINNIE THE
POOH-BLANKET!!

AND THE WORDS:
WINNIE THE
POOH-BLANKET
HAS:
BARACK OBAMA's
EXACT INITIALS OF
(B. H. O.) IN IT
TOO!!

BECAUSE:
AFTER THE WORD
(POOH)!!
COMES THE WORD
(BLANKET)!!

AND THE WORD:
(POOH) ENDS
WITH (O & H)!!

AND THEN COMES:
THE WORD
(BLANKET)!!
THAT STARTS WITH
THE LETTER (B)!!

SO NOW WE HAVE
THE LETTERS:

(O. H. B.) RIGHT
BESIDE EACH OTHER
IN THE WORDS:
POOH-BLANKET!!

AND WHEN YOU
UNSCRAMBLE
(O.H.B.)

YOU GET:
(B. H. O.)
WHICH IS
THE MARK OF
THE BEAST!!

AND THE INITIALS
OF THE BEAST
NAMED:

BARACK OBAMA!!

AND THIS DEMON IS
THE ANTI-CHRIST!!
AND HE IS KILLING
PEOPLE AND
CAUSING KILLINGS
WITH HIS:
(B. O.) AND
(B. H. O.) MARK
OF THE BEAST
FOLKS!!

AND:
WINNIE THE
POOH-BLANKET!!
SURELY HAS THE
LETTERS (B. H. O.)
IN IT!!
AND RIGHT BESIDE
EACH OTHER FOLKS!!
BECAUSE:
(B. H. O.) IS THE
MARK OF THE
BEAST NAMED:
BARACK OBAMA!!

AND HE NEEDS TO
BE ARRESTED FOR
THE MURDER OF:
CAYLEE ANTHONY!!

BECAUSE HE IS
SILENTLY KILLING
PEOPLE WITH HIS
MARK!!
AND I CAN ASSURE
YOU THAT:
BARACK OBAMA
AND HIS MARK OF
THE BEAST CAUSED
CAYLEE ANTHONY
TO BE KILLED!!
BECAUSE:
BARACK OBAMA IS
THE ANTI-CHRIST
FOLKS!!
AND HIS MARK OF
THE BEAST IS
SURELY:

====================
BHO. BHO. BHO.

B. O. B. O. B. O.

BHO. BHO. BHO.
B. O. B. O. B. O.

BHO. BHO. BHO.

B. O. B. O. B. O.

```
BHO. BHO. BHO.

B. O. B. O. B. O.

BHO. BHO. BHO.

B. O. B. O. B. O.

BHO. BHO. BHO.

B. O. B. O. B. O.

BHO. BHO. BHO.

B. O. B. O. B. O.

BHO. BHO. BHO.

B. O. B. O. B. O.
BHO. BHO. BHO.


NO QUESTION
ABOUT IT!!
```

I took the subject line to be the title and the body of the message to be the performable content. Each line is treated as a metered bar containing text to be vocally delivered within that amount of time. Blank lines are rests. Colons mark the transition between two groups of vocalists, as do parenthesis, which generally occur within lines of text. Exclamation points are hand claps, and other punctuation may be treated as some other articulation, as in Christian Wolff's *Changing the System*. A double dashed line is a double bar-line, where transition between methods of delivery is possible.

Having established this system, I re-transcribed the text/notation into a notation which I felt could be more easily delivered by a group of performers used to working with more conventional notation. I did this not only for the purpose of utilizing the musical conventions, but also as a way of removing the text from the convention of prose reading.

4.15.3: *the fog*

After my experience with the two previous pieces, I was more interested in the possibility of

making pieces for singers. For one, I am drawn to the fact that the voice is the ultimate portable instrument which almost everyone possesses. After working with Exaudi, [230] I was also inspired by the fact that singers can very easily sing without being given specific pitch or rhythmic elements to draw from; those elements already exist in memory from a large possible lexicon.

Unlike the previous two pieces, the text for *the fog* was composed/generated/gathered[231] by me specifically for this piece. As such, I felt that this should be the focus of the work. As in the piece for two groups of vocalists, what is sung in terms of pitch and rhythm is at the performers' discretion. The coordination on the other hand is not specified and must be worked through by the two performers, being either pre-planned or involving real-time cueing. Again, as in *Renascence*, accompaniment is possible, though the type of instruments used is limited, in part to ensure portability, and to keep the focus of the piece on the words and voices.

4.16: *bits of metal in a jar*

This started its life out not so much as a piece, but simply what Henry Flynt may call "brend."[232] That is, it was simply something that I did at home with no intended goal. It just seems a shame to me to throw out pieces of metal after people have gone to all of that trouble of smelting and forging and whatever else goes into making little metal bits. As a general rule, I do not put things into the jar that could be recycled or have a future use.

It occurred to me that this may be a piece when I was asked if I had any new solo pieces that I could perform on a concert. For some time, when I was performing this action at home, I had considered how it could become a piece; what rules I could apply, and how I would notate and/or word such rules. Only later, when considering public performance, did I realise that all of the needed rules were the ones I was already applying while performing these actions at home.

Since recognising and performing this piece, my life has changed in subtle ways. Now, when walking, I am on the lookout for these bits of metal in my path. This sort of looking for and picking up of bits has become second-nature. In the jar are keys and buttons and things which I can't identify. For some reason, they all crossed my path, and I will likely never know why. Other bits come from my house; parts of used-up disposable cigarette lighters, screws and nuts from a

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230 Though only a reading, a recording of Exaudi performing *BARACK - - KILLED (CAYLEE) !!* is on the accompanying CD.

231 I used a similar process for *boredom and danger*. This involves scouring the results from internet searches based on specific search terms related to the title.

232 "There are experiences for each person which accomplish what art and entertainment fail to. [...] I have coined the term 'brend' for these experiences. [...] [T]hese doings should be referred to as your just-likings. In saying that somebody likes an art exhibit, it is appropriate to distinguish the art exhibit from his or her liking of it. But in the case of your just-likings, it is not appropriate to distinguish the objects valued from your valuings, and the single term that covers both should be used. [...] These just-likings are your "brend."" – Flynt, Henry, ART or BREND? (1968): http://www.henryflynt.org/aesthetics/artbrend.html (accessed June 28, 2011)

broken electric shower. As years have passed and I encounter more of these objects, I have had to come to terms with what "bits" means. I had a clear idea at the outset, but as each new object is encountered, the word must be re-evaluated. As such, some bits have left the jar, and others which would have gone in in the past have not.

The score came later. The first two sentences were my program note for the initial performance. The second line was added to make a score from which anyone could perform.

fig. 42: all of the bits from the jar as of September, 2011

Conclusion

"It's all made up anyway."[233]
– James Saunders

Through composing and this writing, a sort of learning procedure has been carried out.   This greater thought I have engendered through the research process should help me to both better realise each new piece's identity, and understand how that identity should be communicated to certain performers, given various possible types of notation and score. By simultaneously working through each of these three elements (identity of a piece, its notation, and what performers the piece and notation are best suited for), the solution to each becomes more apparent. This both expedites these processes and also results in more clearly focused works.

Michael Parsons has said,

> "There's something a bit facile about a predetermined system with readymade solutions. Real composing involves responding to the unexpected, taking an unpredictable turn, encountering the conditions which can't always be anticipated." [234]

I have no more insight in how to predict these unexpected and unpredictable conditions now than I did ever. However, I think that what I do now have is a facility to better meet these conditions when and as they arise. I now worry less about trying to compose pieces, but simply try to be more attentive to encounters with new situations when they occur and to then use what I have learned to create pieces from these experiences.

This is not about "filling in" something missing, and not just about my contribution to experimental music, but about giving others paths to make their own contributions, through performance. Together, we can open up spaces for exploration.

The changes my work has undergone are subtle, but significant. I now view the score less as a carrier of information and more as a means of communication. Now, rather than just considering what is the best and most economical way to get information about a piece into a score, I fully consider who this information is to be communicated to and how this may best be done.

Specifically, the wording I use within scores has changed. For instance, I now try to avoid using the word "should" in most text notation, as this seems too polite for a score, which is often an

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233 email correspondence, September 23, 2011
234 Parsons, Michael, 'Interview by Tim Parkison, 20.02.10' (2010): http://www.youtube.com/watch?v=F98XvkiVhdM (accessed May 18, 2010)

authoritative document. However, I have not, and do not, revise scores in this regard, as I think each score should be indicative both of my sensibilities regarding notation at the time of composition and of those of the community at large where and when the score was made. I expect this to have some impact on the performance practice of these pieces, as notation and performance practice develop simultaneously. I will only revise scores if I come to a realisation about the associated piece which I feel the score does not communicate in its current form. Still, I may wish to make a new score and leave the old score as an artefact; a different type of score than originally intended, which could create new ruptures and lead to new pieces and types of performance.

These experiences have led to a refinement of my working process in a general way. While I haven't developed any certain dogmatic procedures, I am now more critical in my examination of a piece and/or a score while it is in development. Having a clear understanding of a piece's identity and its relationship to performers and performance is something I now try to have firmly established before approaching the notation of a score. While then working with this notation, I am critical of it as I consider what a different audience of performers would make of it and how this could recursively have an effect on my understanding of the piece. This helps me better execute the job of the composer when "wearing that hat." At the same time, this sort of critical thinking about scores and notation has also allowed me as a performer and ensemble leader to more readily, quickly, and practically approach performance of new pieces and new situations. This does not so much change what is composed, but changes how compositions are realised. Ideally, this will result in being surprised by performance only at times when surprise is desirable, and for those surprises to be pleasant; less "scrambling in the dark" by composer and performer both.

At present, I have notes and sketches for many pieces at various stages of development:

Two pieces dealing with dynamics as that element relates both to the instruments used by performers and ensemble interaction. This interest came about, in part, through performing the works of others and noticing the profound impact that dynamic elements can have on choices made by both individual performers and an ensemble, during both rehearsal and performance.

A piece for orchestra, using standard staff notation. While the social situation of the orchestra is very different from those I am used to working with, this difference has intrigued me. After observing other composers working with orchestras (especially at Ostrava New Music Days in 2007 and 2009), I began to formulate ideas about how to work with such a group to make music in ways that would be rewarding for both myself and the performers.

I am continuing to compose a set of pieces for Sebastian Berweck. Each uses a different type of notation, and each involves a different aspect of keyboard playing relating to its interaction with various electronic elements.

Piano pieces for Philip Thomas and Tim Parkinson. Having known and worked with both of these pianists for some time now, I have come to understand some of the ways they enjoy interacting with composers through notation. Now, thinking of each as a performer, the piano seems largely ancillary. However, as both are very good players, I feel that writing pieces for them to play on or with piano would be rewarding, as attempts to satisfy each will lead to different ways of writing for that instrument.

Another harp piece for Rhodri Davies, using different playing techniques and notation than the earlier piece I wrote for him.

In addition to these rather specific examples, there are other pieces still in the works which address more open and diverse concerns. However, these broader concerns of mine have become both more focused and more widespread.

I am interested in working further with pieces which do not require the interaction of people with scores at the time of performance; that is, pieces which can be set up and simply run without direct human interaction, similar to installations. I see this not as an abandonment of my focus on working with performers, but as a way to more closely examine other aspects of a piece, such as the physical space and specific time of a performance – its environment separate from the social concerns of performance.

In contrast to this, I have plans to also further my work on scores which will bring about pieces only through performers' interaction with them, the identity of which I cannot predict prior to performance. In this regard, I have plans not only for new notations which may be conveyed through scores in my usual way, but also for ways of presenting scores in which the physical object of the score is wholly unique and not able to be reproduced.

I have come to have a greater appreciation for the craft of producing scores and notation. I look forward to using different types of notation, and the further examination of how a piece's identity and its notation may – and at times should – relate to one another. Simultaneously, I am ever more aware of the sometimes separate nature of notation, performance, and composition.

All of the understanding I may have of abstract properties of experimental music and its notation are not of much use to myself alone as a musician. It is important to remember why the work is important, and that is because of *other* people. That is why having this understanding matters. It is because I respect people. I like people. I make this work in order to bring people together – so that we can learn from one another. By showing them greater respect, by extending this invitation to work together as clearly as possible, the more we will learn from one another.

I feel that a good composer – regardless of "style" or any specific technique – makes pieces that people want to play – pieces which make people enjoy being part of the process of making music. This is why craft is so important – to show respect, and to make this process of music making as enjoyable and rewarding as possible for all involved.

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List of Scored Works Composed Between October, 2007 and August, 2011:

<u>2007</u>

Beauty and Industry (for two or more players)

Seven Movements for String Quartet (after John Downland's *Lachrimae*)

after the wake (for seven players each playing two instruments, for fourteen unique instruments in total)

inseparable companions (solo or duet; for violin, viola, or 'cello (any one or two or two of the same))

kids in sandbox

Odd Objects (a collection of nine solo and group activities)

trio 2007

<u>2008</u>

wyoming snow

trio 2008(a)

trio 2008(b)

seven minutes for trombonist

21st century music

how the face veil is worn (trio for speaking horn, trombone, and tuba players)

tender

Fare Thee Well, California

Huddersfield Trio

fidelity... like snowflakes or fingerprints (piano)

percussion solo

Pling Plong (for any number of hand-cranked music box players)

Violoncello

<u>2009</u>

sound and silence (for two or more players)

british creepy crawlies (for two or more players)

Indian Corn (for two or more players)

piece for 12 saxophone players

wind quintet

kathryn of birmingham (harp solo)

27 events for clarinetist

a round (for two to five players)

BARACK -- KILLED (CAYLEE)!! (for two groups of vocalists)

Electric Guitar Piece

Renascence (for voice and instrumental accompaniment; after the poem by Edna St. Vincent Millay)

Piano Piece for John Lely

Smokers Die Younger

star of the north (for piano and piano-controlled electronic tones)

2010

Metropolis (for solo performer with multiple wind-up music boxes)

Hammer pieces:

    Accordion(s) (for any number of accordion players)

    Bowed Instrument(s) (for any number of players of bowed instruments)

    Clarinets (for two or more clarinet players)

    Clarinets II (for two or more clarinet players)

    Tubas (for two tuba players)

Sol Lewitt pieces:

    Wall Drawing 142 (after Sol LeWitt; four or more players)

    Wall Drawing 901 (after Sol LeWitt; seven or more players)

2011

duets

bits of metal in a jar

long cadence (for multichannel audio playback)

lowlands (for two or more players)

Bryn Harrison

not (for solo performer)

Vincas/81 (solo for 'cellist with BACH bogen)

ravens, rooks, and crows (for three or more players)

the fog (for two singers)

One Bow Stroke Lasting 30 Seconds

One Minute Piece for Orchestra

technique (for any number of wind players capable of circular breathing)

Two Sections (for any number of players)

Matter (for solo performer with two similar cymbals and matter)

two bows, one string (for one or two players)