Joseph Klein

An Unaware Cosmos

(2012-18)

modular cycle for multiple soloists and chamber ensembles

Supported in part by a fellowship from the University of North Texas Institute for the Advancement of the Arts.

duration: variable (10-30'+)

Performance Notes

An Unaware Cosmos is a cycle of nineteen works, scored for a variety of soloists and small chamber ensembles that are to be combined in a modular fashion. A given performance of An Unaware Cosmos must include no fewer than three modules, which may be arranged in any number of ways according to the specific instructions accompanying each score within the cycle. Once the work begins, however, the performance should be continuous—i.e., there should be no substantial breaks between the various modules.

STRUCTURE:

At the outset, it will be necessary to clarify a few terms that are used herein, so as to distinguish the various structural properties and hierarchies of this work:

- Module: This refers to any of the individual works in the cycle; these might traditionally be referred to as "movements," though because they are performed concurrently rather than consecutively—and because their arrangement is not fixed—the term "module" is used here instead.
- Episode: This refers to a self-contained section within a module, usually set off from one another by fermatas, caesuras, and/or double bars in the score (as in *Transient Dominion*, for example).
- Iteration: In discontinuous modules (usually those of a recurring nature), each occurrence is referred to as an iteration. Often there are specific instructions as to the interpretation of each iteration (as in *Shadows on the Horizon*, for example).
- Event: This typically refers to a musical unit that is smaller than either an episode or an iteration, and which may be part of a larger musical unit; thus, a given iteration of a module may consist of several events (as in *A Delicate Geometry*, for example).

Because each module has a distinctive and often uniform character, a performance of *An Unaware Cosmos* is highly dependent on the relationships between the selected modules, perhaps more so than those within any given module. Consequently, these modules are not intended to be performed independently. In order to enhance the contrapuntal possibilities within a given performance of the work, it is important to consider the various relationships of the modules with regard to temporality and character, as indicated below:

TEMPORALITY:

Modules may either be either Continuous or Discontinuous (the latter of which are divided into three categories):

- Continuous (C) Once begun, these modules proceed through to the end without significant or sustained breaks in the continuity. Continuous modules may include looped or suspended sections, indicated by repeat brackets and fermatas, respectively; however, these modules occur once and only once in a given realization
- Discontinuous: Intermittent (I) These modules may be broken up according to indications in the score,
 often into shorter units that are interjected into the other modules. Segments are separated by pauses
 (marked with caesuras and fermatas in the score) of varying lengths, to be determined by the
 performers/conductor.
- Discontinuous: Sectional (S): These modules consist of segments that are typically longer than the Intermittent modules, but may be broken or suspended at certain points as indicated in the score.
- Discontinuous: Recurring (R) These modules are of a consistent character throughout, and may be broken into segments of varying lengths, usually at any place in the score as determined by the performers.

CHARACTER:

Modules may be distinguished according to the following general characteristics:

- Assertive (A) These modules are the most prominent, usually interrupting or overpowering concurrent modules.
- Passive (P) These modules tend to be relegated to the background, as a result of lower dynamics, thinner textures, and/or simpler rhythms, and are often obscured by concurrent modules.
- Neutral (N) These modules may not be characterized as either assertive or passive, and are generally consistent in their character.
- Varied (V) These modules have variable characteristics, and may range from passive to assertive.

Staging of the work is important, as the individual modules must be self-contained spatially as well as musically. A performance of *An Unaware Cosmos* should take advantage of the entire performance space, including stages and balconies, as appropriate. Coordination of modules may be achieved in one of three ways, depending on which modules are performed and how they are arranged in relation to one another: (a) by internal cues within and between ensembles/soloists; (b) by the use of a web-based cuing system (available from the composer); or (c) by the use of one or more conductors.

In realizations performed by smaller ensembles, it may be necessary for players to perform in more than one module; for example, a performance by a standard Pierrot ensemble may include *Unweaving a Rainbow, Celestial Teapot, The Illusion of Permanence, On the Perimeter of Ignorance*, and *Que sçay-je*?, which would require the violinist, percussionist, and pianist to perform in more than one module. In such instances, it may not be possible to spatially separate the various sub-ensembles, although the performers should be arranged in a way that allows the modules to be clearly differentiated.

Optional tuning: In realizations with four or more modules, it may be is desirable for some of the ensembles to tune a quarter-step below standard pitch (c. A=427), resulting in a rich microtonal spectrum between modules. Of course, this will not be possible with modules that include fixed-pitch instruments (e.g., piano, celesta, mallet percussion). In such cases, alternatively tuned ensembles should make up between a third and half the total number of modules included in a given realization.

Below are the nineteen modules that comprise An Unaware Cosmos, arranged by ensemble size:

- Que sçay-je?: solo Eb clarinet [S, A] (p. 1)
- A Splendid Torch: solo piccolo trumpet [I, A] (p. 5)
- ...e pur si muove: solo violin [I, V] (p. 9)
- A Noble Ideal: solo xylophone [S, A] (p. 15)
- Unweaving a Rainbow: viola (or violin, or violoncello), piano [C, N] (p. 23)
- The Illusion of Permanence: violin, violoncello [C, V] (p. 31)
- Celestial Teapot: percussion (one player: vibraphone, 3 crotales, 3 tam-tams), piano (or harp) [R, P] (p. 37)
- Blind Watchmaker: contrabassoon (or Bb contrabass clarinet), 2 percussion (4 woodblocks; 4 log drums) [C/R, A] (p. 43)
- A Fleeting Symmetry: guitar, harp, harpsichord [R, N] (p. 49)
- On the Perimeter of Ignorance: piccolo, celesta, flexatone [R, A] (p. 59)
- A Delicate Geometry: voice (countertenor or mezzo-soprano), electric guitar, accordion (or harmonium, or portative organ), [R, P] (p. 73)
- La Contagion sacrée: trumpet, horn, trombone (or 3 horns); percussion (optional, one player: afuche, shaker, or sand blocks) [S, A] (p. 81)
- Pascal's Fallacy: saxophone quartet (SATB, ATTB, AAAA) [R, A] (p. 87)
- Glorious Accidents: 4 mixed double reeds and/or saxophones [R, N] (p. 91)
- Transient Dominion: Flugelhorn (or trumpet), bass trombone, percussion (one player: 3 cymbals, tam-tam, 4 tom-toms, bass drum), piano [I, A] (p. 95)
- Shadows on the Horizon: string quartet [R, A] (p. 105)
- The Indelible Stamp of Our Lowly Origin: 4 contrabasses [C/S, N] (p. 111)
- La vanité des superstitions: alto flute, English horn, bass clarinet, horn, bassoon [S, V] (p. 119)
- Die Tyrannei der Mehrheit: low brass (four parts, up to four players per part, drawn from bass trumpets, euphoniums, tubas); percussion (2 to 4 players: chimes, tam-tams required; gongs, bell plates, and almglocken, ad libitum). [I, A] (p. 127)

This is a transposed score.

Program Note

The history of art, music, and literature through the ages is rife with works rooted in their respective cultural mythologies; in contrast, the influence of science and mathematics on the arts has historically been more theoretical in nature (e.g., the overtone series and musical temperament, the golden ratio in ancient Greek architecture, tessellations in Moorish tile work, or the introduction of perspective in Renaissance painting). Only during the past half-century or so have such paradigms—as manifestations of objective reality—served as a basis for artistic expression.

While my own work has regularly drawn upon models and metaphors from mathematics and the sciences as an expression of the natural world, I have become increasingly compelled in recent years—in part as a response to the preponderance of works that extol the pervasive mythologies of our present culture—to create a work that pays homage to those freethinkers who have devoted their lives to the pursuit of truth, many of whom suffered persecution and punishment by the authorities of their respective eras. In that spirit, *An Unaware Cosmos* was conceived as a celebration of humankind's quest for knowledge through skepticism and critical inquiry, as well as a rebuke of the tribalism, superstition, and sophistry that continue to characterize much of our society well into the 21st century. Concepts relating to cosmology, evolutionary biology, and genetics—as well as aspects of materialism, existentialism, humanism, and other nontheistic philosophies—have informed this modular work for multiple soloists and mixed chamber ensembles.

The polyvalent and mutable arrangement of the nineteen modules that comprise this cycle are intended to explore a variety of relationships—timbral, spatial, conceptual, structural—both within and between modules. In performance, music from these distinct modules is combined, fragmented, dislocated, suspended, disrupted, and penetrated, often in unpredictable ways. This approach to form suggests an Eternalist model of time, whereby all possible events theoretically exist, while our ability to experience them is restricted to the present moment; thus, any given realization of *An Unaware Cosmos* is simply one of a potentially limitless number of ways the work may unfold. Applying this concept to the listening experience challenges our teleological assumptions regarding musical form, which are themselves the result of centuries-old cultural biases.

An Unaware Cosmos was supported in part by a fellowship from the Institute for the Advancement of the Arts at the University of North Texas. The complete cycle was premiered on 26 October 2018 at the University of North Texas Murchison Performing Arts Center.

Que sçay-je?

for solo E♭ clarinet

Nothing is so firmly believed as that which we least know.

— Michel de Montaigne, Essais (1595)

With regard to matters requiring thought: the less people know and understand about them, the more positively they attempt to argue concerning them.

— Galileo Galilei, Letter to Don Virginio Cesarini (1623)

Que sçay-je?

Performance Notes

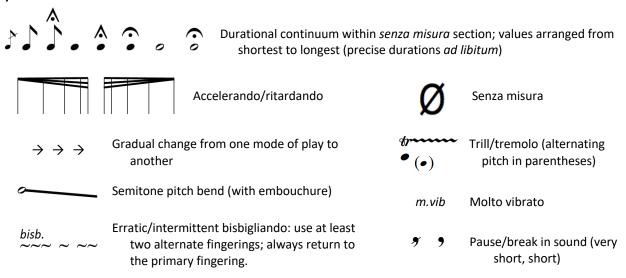
Instrumentation: solo Eb clarinet **Properties**: Recurring, assertive

Interpretation:

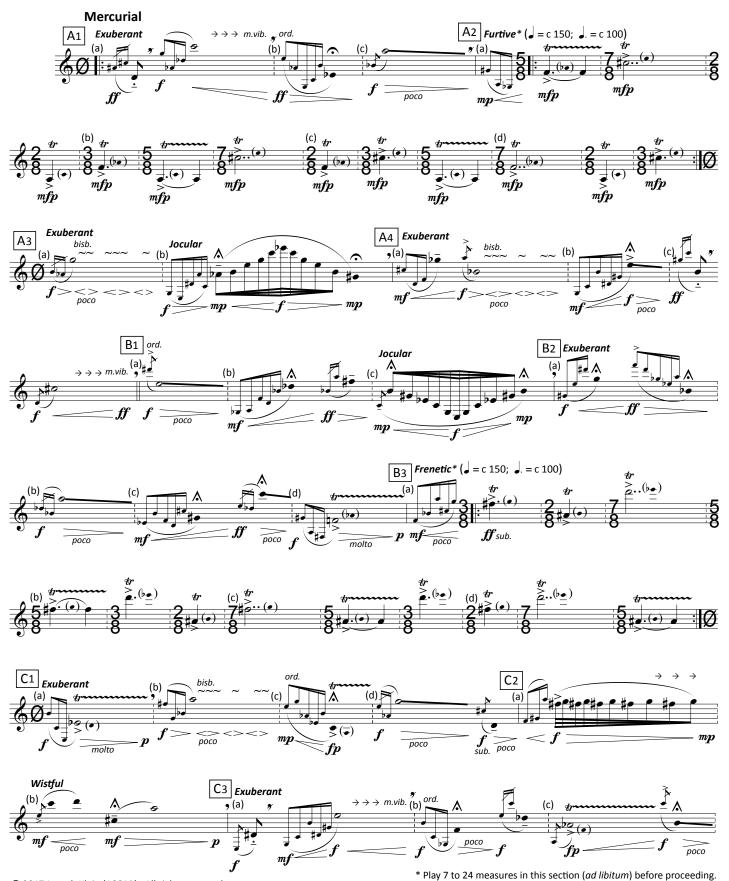
- This module is to be performed in shorter iterations of 10 to 30 seconds each; however, in longer realizations of *An Unaware Cosmos*, iterations may last as long as a minute (or more), depending on the context. The performer is to interpolate intermittent breaks (*ad libitum*) at any of the broken or solid barlines.
- The performer may begin the initial iteration at any of the 21 rehearsal markings in the score.
- Whenever resuming play after a longer pause, the performer must begin by repeating the final gesture of the preceding iteration, and continue playing from there; thus each iteration overlaps the previous and subsequent iterations.
- Once reaching the final measure of the score, the performer returns to the top (*attacca*) and continues playing from the beginning.
- Whenever possible, at least one complete cycle through the score should be completed in a given realization of *An Unaware Cosmos*; shorter realizations, however, may necessitate a truncated version of this module.
- In the sections marked Furtive and Frenetic, the player may play between 7 and 24 measures (two complete cycles) *ad libitum* before proceeding. The performer should strive for noticeably different durations in recurring statements of these sections. If resuming play at one of these sections following a long pause, the player may begin at any measure marked with a parenthetical lower-case letter.
- Each line of music in proportional notation is approximately 12-15 seconds in duration.
- The duration of a given iteration, as well as the duration of the pauses between iterations, should be determined in part by the context of this module within the performance of *An Unaware Cosmos*: for example, longer iterations may be played during passive and/or static modules, resulting in a more prominent, soloistic treatment of the material; when played during the more assertive and/or active modules, shorter iterations may be chosen, resulting in a more intrusive/disruptive treatment of the material.
- In addition to the longer pauses between iterations, brief pauses (≤3 seconds) may be interpolated within a given iteration wherever a breath mark occurs over a barline. It is left to the performer's discretion whether and where these optional breaks are to occur, which may be in part contextually determined.

Optional tuning: The performer may tune to A=427 (see general prefatory notes for details).

Set-up: Performer should be standing in a prominent location at house left or right—either at the floor level or (preferably) on a balcony—so as to be visible to the audience. If this module is included in a performance with one or more of the other solo modules (*A Splendid Torch, ...e pur si muove*, and/or *A Noble Ideal*), the solo performers should be stationed as far apart in the performance space as is practical.



from *An Unaware Cosmos*





A Splendid Torch

for solo piccolo trumpet

I am of the opinion that my life belongs to the whole community, and as long as I live it is my privilege to do for it whatever I can. I want to be thoroughly used up when I die, for the harder I work the more I live. I rejoice in life for its own sake. Life is no "brief candle" for me. It is a sort of splendid torch which I have got hold of for the moment, and I want to make it burn as brightly as possible before handing it on to future generations.

- George Bernard Shaw (1907)

If there is a sin against life, it consists perhaps not so much in despairing of life as in hoping for another life and in eluding the implacable grandeur of this life.

- Albert Camus, "Summer in Algiers" (1936)

A Splendid Torch

Performance Notes

Instrumentation: solo piccolo trumpet in A

Properties: Intermittent, assertive

Interpretation:

- This module consists of sixteen single-line melodic passages, which the performer may combine in various ways according to the following guidelines. The character of these passages includes contrasting material that alternates between lyrical and emphatic characters.
- A performance of this module consists of multiple iterations, each separated by a pause of at least 20 seconds. These iterations are comprised of one to three of the sixteen melodic passages, none of which may be repeated in a given performance.
- Within any given iteration, the performer is to alternate between melodic passages in Group A and those in Group B; these passages may be combined in a number of ways, according to the guidelines indicated in the score, though no more than two statements from a either group may be played consecutively. For example, an iteration including three passages may consist of any of the sequences ABA, BAB, AAB, or ABB; iterations with two passages may consist of any of the sequences AB, BA, AA, or BB.
- Iterations should be sufficiently varied so as to avoid any sense of predictability or regularity with regard to the number and arrangement of the selected passages.
- Iterations are to alternate between open and muted; exceptions may be considered given the context, in order to adequately complement the character of any concurrent modules.
- The number of passages included within a given iteration, as well as the duration of the pauses between them, should be determined in part by the context of this module within the performance of *An Unaware Cosmos*: for example, longer iterations may be played during passive and/or static modules, resulting in a more prominent, soloistic treatment of the material; when played during the more assertive and/or active modules, shorter iterations may be chosen, resulting in a more intrusive/disruptive treatment of the material.
- In addition to the pauses specified in the score, brief pauses (≤2 seconds) may be freely interpolated at any point marked by a broken barline; pauses of up to 5 seconds may be interpolated at the double bars between discrete passages (though typically, successive passages would be played without a break). It is left to the performer's discretion whether and where these optional breaks are to be interpolated, which may be in part contextually determined.
- The final note of each passage may be sustained, truncated, or elided into the succeeding passage at the player's discretion; additional dynamic changes may also be interpolated into the part in order to facilitate the transition between consecutive passages.

Optional tuning: The performer may tune to A=427 (see general prefatory notes for details).

Set-up: The performer should be standing in a prominent location at house left or right—either at the floor level or (preferably) on a balcony—so as to be visible to the audience. . If this module is included in a performance with one or more of the other solo modules (*Que sçay-je?*, ...e pur si muove, and/or A Noble Ideal), the solo performers should be stationed as far apart in the performance space as is practical.

Symbols:



Durational continuum within *senza misura* section; values arranged from shortest to longest (precise durations *ad libitum*)

Brief pause/break in sound

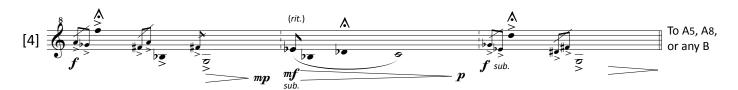
from An Unaware Cosmos

Group A:

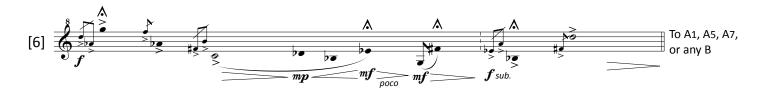




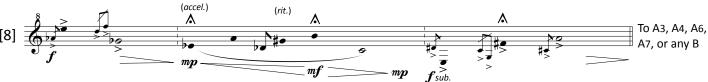












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Group B:



... e pur si muove

for solo violin

In questions of science, the authority of a thousand is not worth the humble reasoning of a single individual.

— Galileo Galilei, Letter to Mark Wesler (1612)

Nature ... is inexorable and immutable; she never transgresses the laws imposed upon her, or cares a whit whether her abstruse reasons and methods of operation are understandable to men.

— Galileo Galilei, Letter to the Grand Duchess Christina (1615)

... e pur si muove

Performance Notes

Instrumentation: solo violin

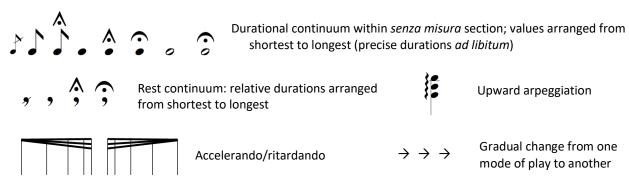
Properties: Intermittent, varied

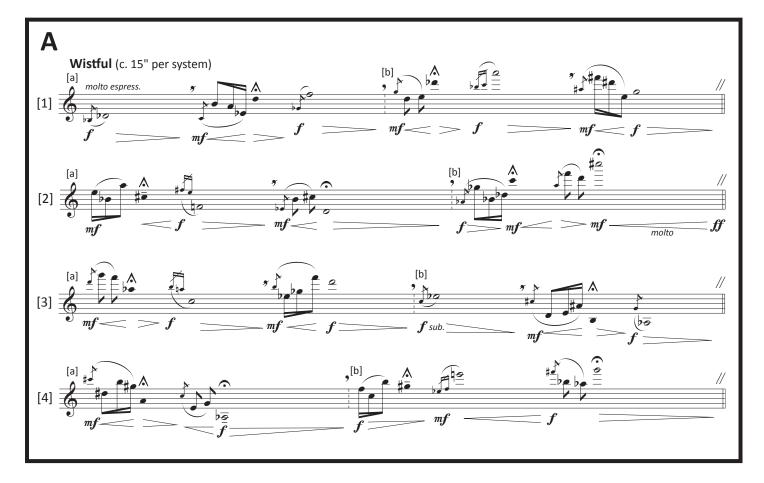
Interpretation:

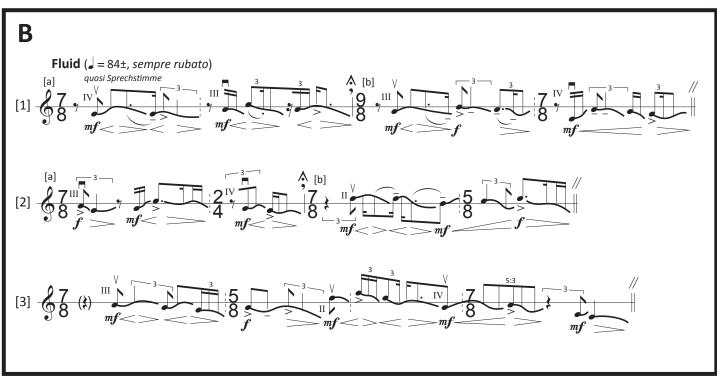
- This module consists of six event-types, which are labeled as follows:
 - A: Senza misura melodic lines, played molto espressivo; each line is approximately 15 seconds duration.
 - B: Melodic lines to be performed in a manner similar to vocal *Sprechstimme* i.e., with generally diffuse pitch definition and speech-like fluidity in both the rhythmic and pitch contours.
 - C: Frenetic arpeggiated and scalar figures, characterized by bowed measured tremolos.
 - D: Relatively short angular gestures, some of which include sustained tones as well.
 - E: Short disruptive interjections. These include bowed and pizzicato quadruple stops, and *martelé* triple stops; further instructions regarding how these are to be used are included in the score.
 - F: Shorter coloristic gestures. These include double-trill glissandi, arpeggio glissandi, erratic bowed tremolos, and ornamented drone figures.
- Events may be organized in a variety of ways, although the various event-types should be relatively evenly distributed in a given performance; thus, events within a given group must not be played in succession.
- Events in groups A, B, C, and D may not be repeated; events in group E are to recur throughout the piece, though the performer should avoid repeating individual gestures in a given event until all have been used; events in group F may be repeated *once* at the discretion of the performer, but only after all events within that event-type have been used.
- In groups A and B, the performer may begin playing at the start of any line; brief pauses (≤2 seconds) may be interpolated within a given event at the dotted barlines (labeled [a] and [b]). It is also possible to interject gestures from other groups at these points (as well as at the dotted barlines in group C), before resuming the original event. It is left to the performer's discretion whether and where these optional breaks or interruptions are to occur, which may be in part contextually determined.
- The duration of a given iteration, as well as the duration of the pauses between iterations, should be determined in part by the context of this module within the performance of *An Unaware Cosmos*: for example, longer iterations may be played during passive and/or static modules, resulting in a more prominent, soloistic treatment of the material; when played during the more assertive and/or active modules, shorter iterations may be chosen, resulting in a more intrusive/disruptive treatment of the material.

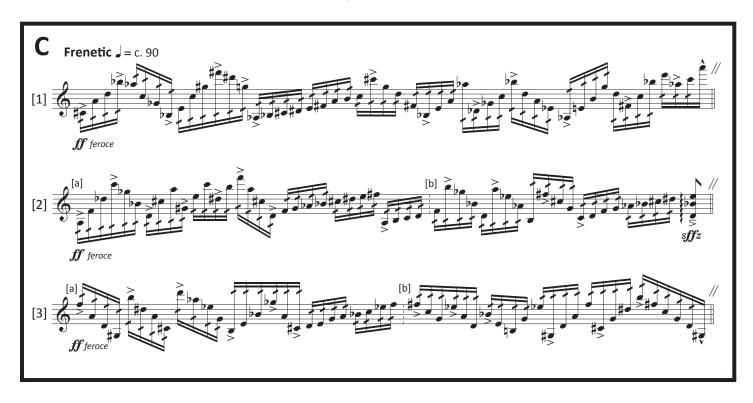
Optional tuning: The performer may tune to A=427 (see general prefatory notes for details).

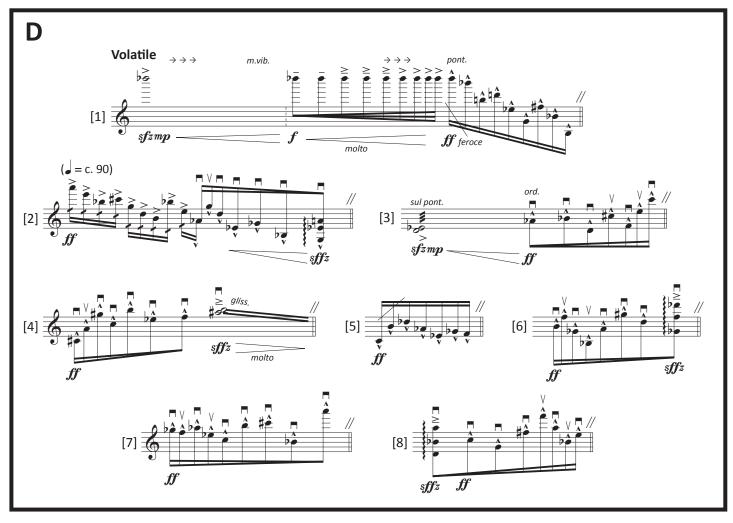
Set-up: The performer should be standing in a prominent location at house left or right—either at the floor level or (preferably) on a balcony—so as to be visible to the audience. If this module is included in a performance with one or more of the other solo modules (*A Splendid Torch, Que sçay-je?*, and/or *A Noble Ideal*), the solo performers should be stationed as far apart in the performance space as is practical.

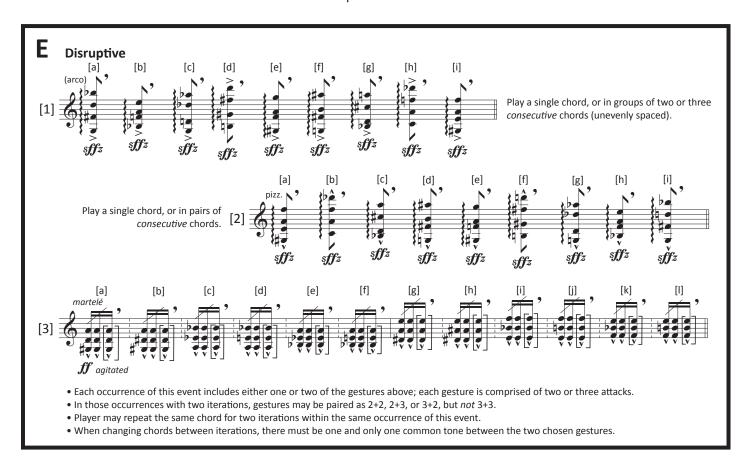


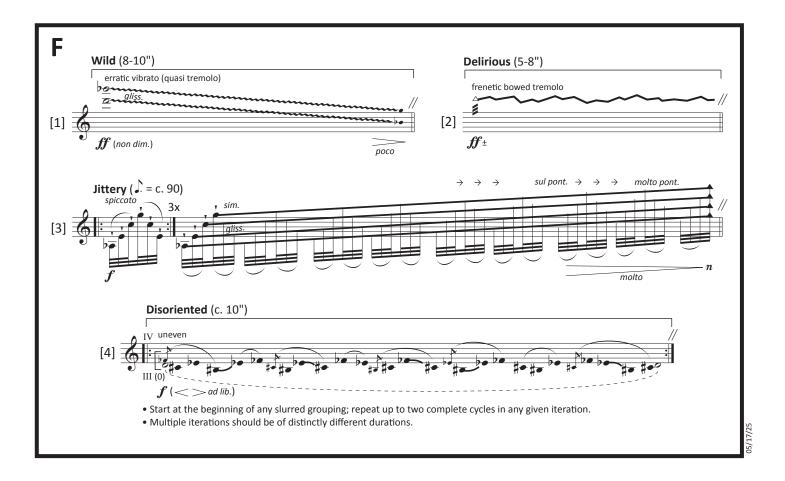












A Noble Ideal

for solo

Equality before the law is probably forever unattainable. It is a noble ideal, but it can never be realized, for what men value in this world is not rights but privileges.

- H.L. Mencken, Notebooks (1956)

I think it only makes sense to seek out and identify structures of authority, hierarchy, and domination in every aspect of life, and to challenge them; unless a justification for them can be given, they are illegitimate, and should be dismantled, to increase the scope of human freedom.

— Noam Chomsky, Language and Politics (1988)

A Noble Ideal

Performance Notes

Instrumentation: solo xylophone **Properties**: Intermittent, assertive

Interpretation:

- This module is comprised of thirteen self-similar sections (labeled A through M in the score); the performer may start with any section, and may begin play at one of the incipits or at any measure within each section. When reaching the final measure of a given section, the performer may return to the beginning of that section to continue play, or proceed to the next section in the sequence.
- When proceeding from one section to the next, the performer may either (a) begin with the appropriate incipit prior to each section, proceeding immediately to one of the two measures within the following section that is preceded with a broken barline; or (b) proceed directly to any measure within the subsequent section.
- The music is proportionally notated, and the exact durations are left to the discretion of the performer; however, as a general guideline, the duration of each line of music should be approximately 8 to 12 seconds.
- The performer must play 3 to 7 measures in a given section before proceeding to the next section. It is important to continuously alter the number and duration of measures played within each section so that the changes do not become regular or predictable.
- This module may be played in numerous iterations, each iteration comprising between 3 and 5 sections. The performer must pause for at least fifteen seconds between iterations, and should always vary the duration of these pauses.
- The sections must be played in sequence, either in forward or reverse order (e.g., A, B, C, D,... or G, F, E, D,... etc.). The performer must not change direction of play within a given iteration, but may change direction between iterations.
- The incipits on the left above each section (labeled with a parenthetical "f") may be played only when proceeding forward through the module; those on the right (labeled with a parenthetical "r") may be used only when proceeding in reverse through the module.
- Sections (and measures within sections) may be played more than once in a given realization; however, it is important that the performer attempt to play different measures in subsequent iterations of this module whenever possible.

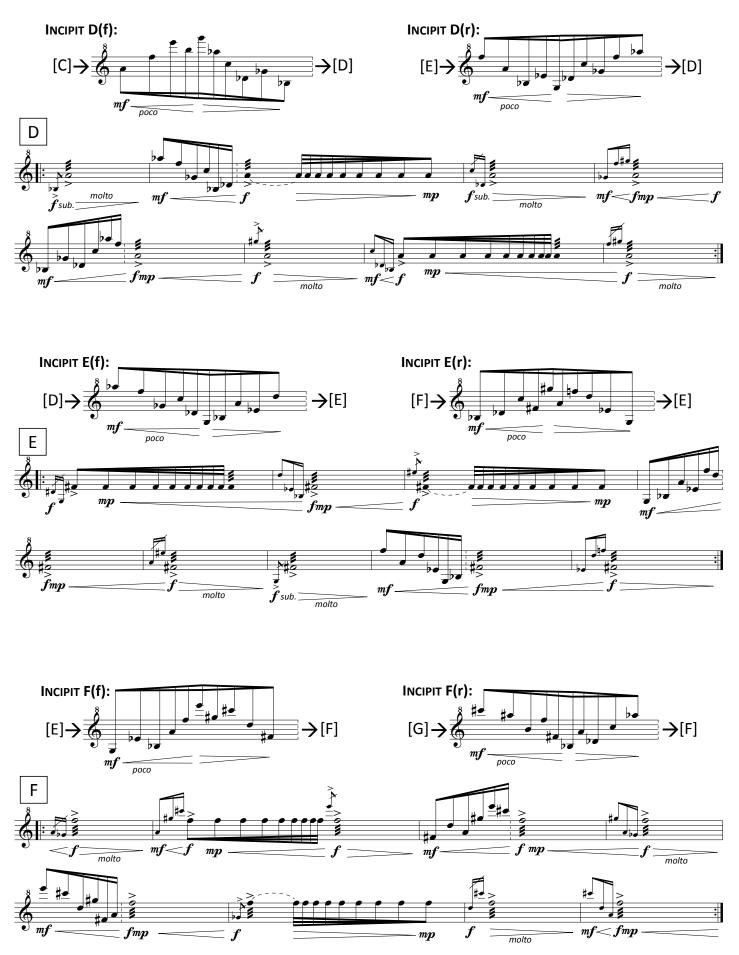
Set-up: If this module is included in a performance with one or more of the other solo modules (*A Splendid Torch*, *Que sçay-je?*, and/or ...e pur si muove), the solo performers should be stationed as far apart in the performance space as is practical.

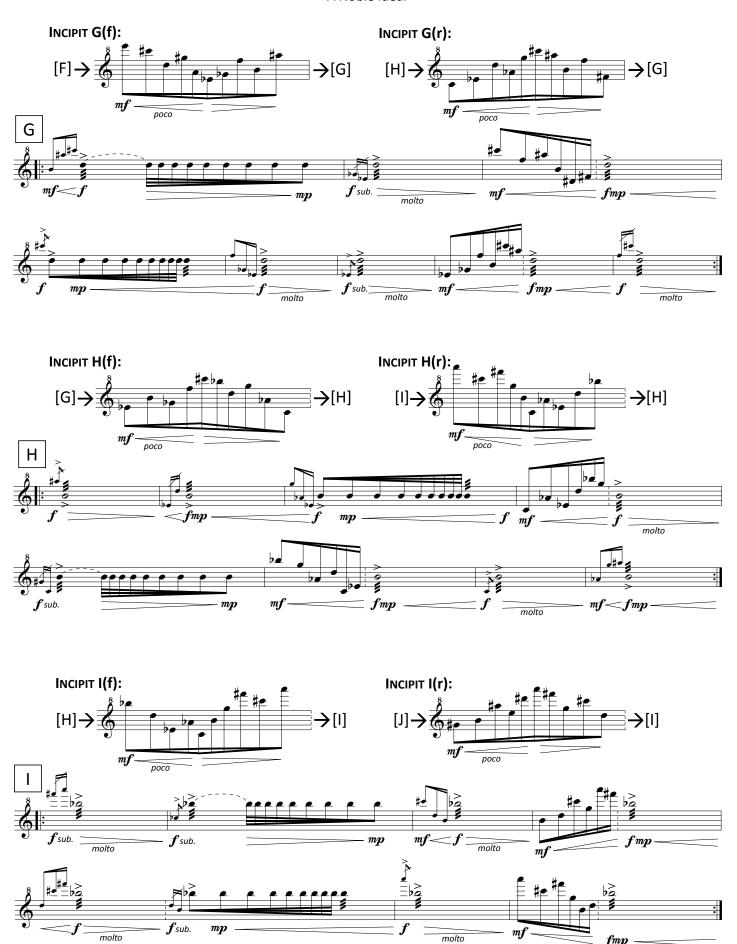


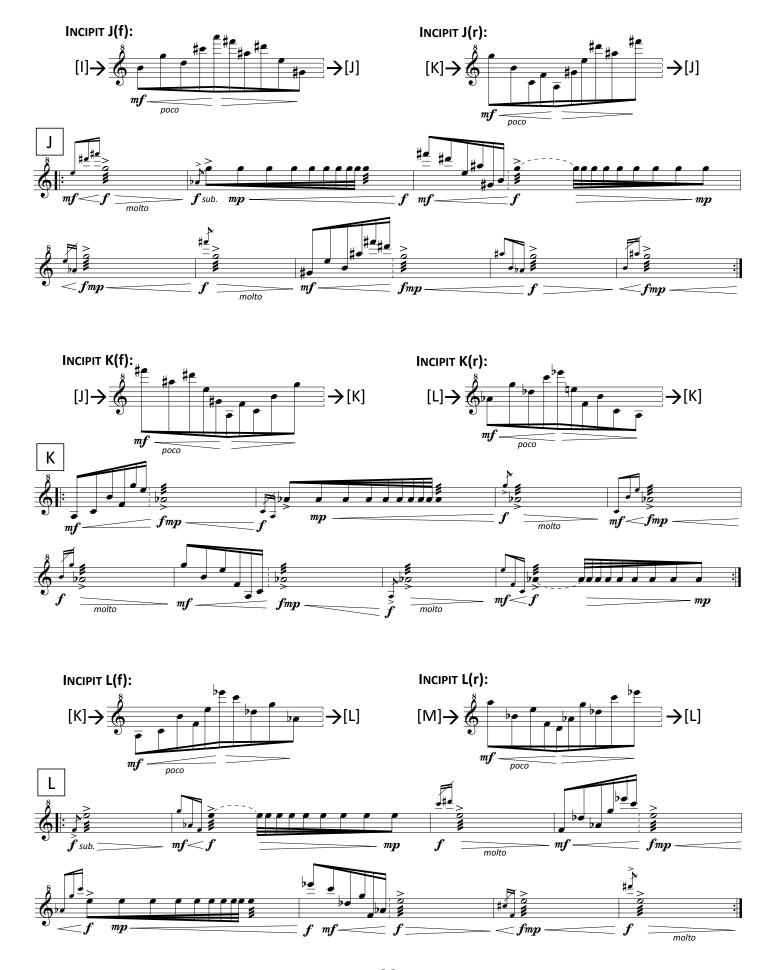
- Relatively short duration
- Relatively long duration

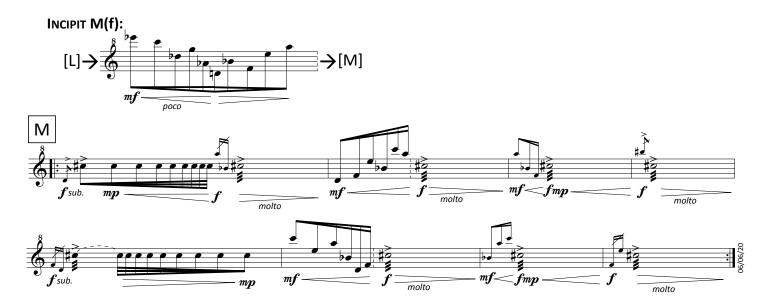
from *An Unaware Cosmos*











Unweaving a Rainbow

for viola (or violin, or violoncello) and piano

To explain all nature is too difficult a task for any one man or even for any one age.

'Tis much better to do a little with certainty, and leave the rest for others that come after you, than to explain all things by conjecture without making sure of any thing.

— Isaac Newton, *Opticks* notes (1704)

There was an awful rainbow once in heaven: We know her woof, her texture; she is given In the dull catalogue of common things. Philosophy will clip an Angel's wings, Conquer all mysteries by rule and line, Empty the haunted air, and gnomed mine—Unweave a rainbow, as it erewhile made The tender-person'd Lamia melt into a shade.

— John Keats, Lamia (1819)

Unweaving a Rainbow

Performance Notes

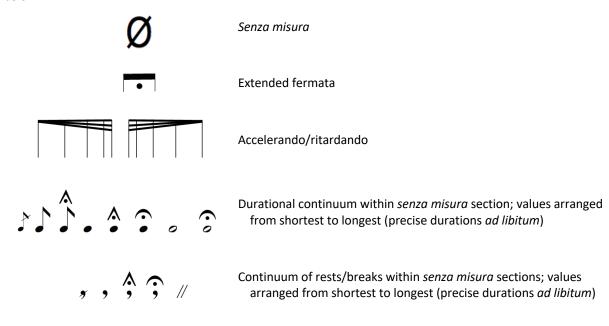
Instrumentation: viola (or violin, or violoncello) and piano.

Properties: Continuous, neutral.

Interpretation:

- Rather than approaching this module as an accompanied viola (violin/violoncello) solo, the performers should consider it to be a duo with two equal but independent parts, each undergoing a series of unsynchronized rhythmic expansions and contractions as part of a larger cycle. In contrast to a typical accompanied solo—where the piano accompanist follows the lead of the solo part—in this case, the more freely-notated viola (violin/violoncello) part should follow the metronomically-strict piano part, which may serve as a point of reference throughout. Because of their independent trajectories, precise alignment of the two parts is not as critical as the overall process itself.
- The viola (violin/violoncello) part is notated in proportional notation, and is thus much more rhythmically pliable than the piano part; the piano part is notated in strict time, and it is important that the metric relationships within this part are maintained throughout. The shorter durations in the piano are to be played as block chords, gradually becoming arpeggiated as the durations increase: these arpeggiations become slower and more deliberate as the note values continue to increase. This process then reverses, as the durations decrease in value, before repeating the entire cycle. It is important that the indicated durations are maintained during the more expansive sections even though the arpeggiations obscure the precise attack points.
- Although intended as part of the larger cycle, this is one of the few modules in *An Unaware Cosmos* that may be performed as a stand-alone work. (If played as an independent work, the fermatas at the beginning and end may be held for 7-10 seconds; these fermatas may be substantially longer when performed with other modules.)

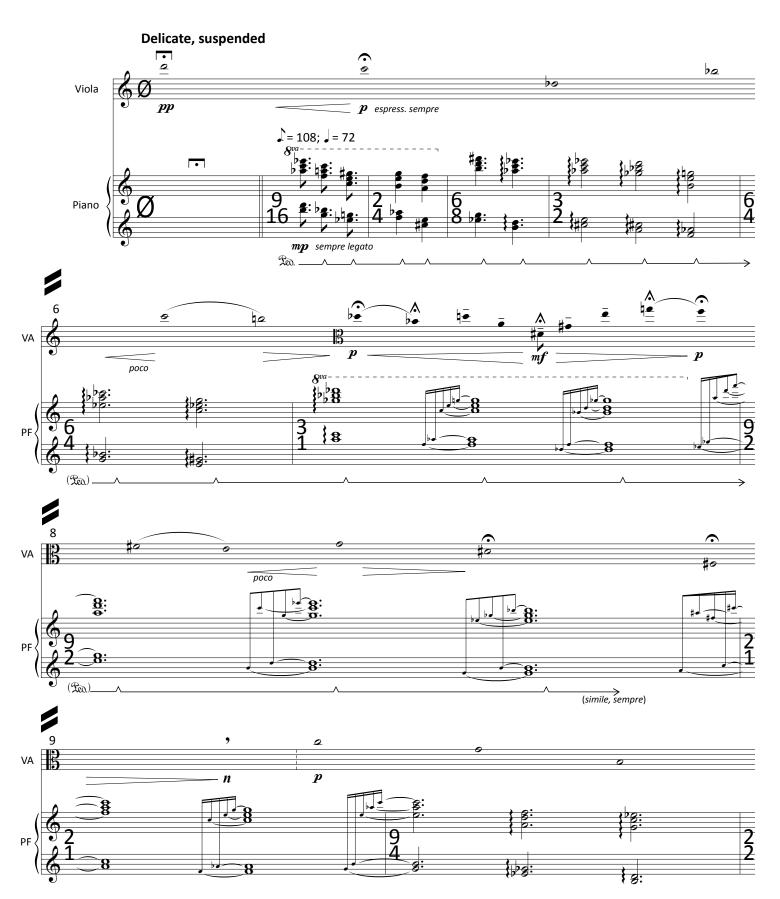
Set-up: Due to the relative weight of this module in comparison to the others in the cycle, it is best to have the performers placed in a prominent location on the stage in performance.



Unweaving a Rainbow

from An Unaware Cosmos

Joseph Klein 2012/14











Unweaving a Rainbow

from An Unaware Cosmos











Unweaving a Rainbow

from An Unaware Cosmos





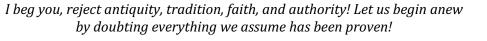






The Illusion of Permanence

for violin and violoncello



—Giordano Bruno (c.1585)

Tradition is the illusion of permanence.

— Woody Allen, Deconstructing Harry (1997)

The Illusion of Permanence

Performance Notes

Instrumentation: violin, violoncello Properties: Continuous, varied.

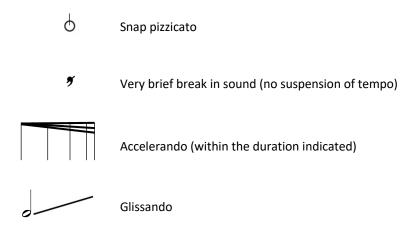
Interpretation:

- This module should proceed unaffected by any disruptions from concurrent modules.
- In performance, this module may be performed straight through continuously, as a single entity, or it may be divided into two halves, demarcated by rehearsal A (m. 1) and rehearsal B (m. 25) in the score. In the latter instance, the two sections must always be performed in the order A-B and may be used to "bookend" other module(s).
- The music in each instrumental part is parsed into four distinct and overlapping musical characters, marked "Agitated," "Ethereal," "Desultory," and "Vertiginous." These characters should be clearly distinguishable from one another—not just in the content of the contrasting musical materials, but even in the physical attitudes and gestures of the performers themselves.
- The "Agitated" sections should be played very aggressively, preferably at the frog and with excessive bow pressure (almost to the point of obscuring/distorting the pitch). The "Vertiginous" sections should seem to be in continuous flux; performers should use full bow strokes whenever possible. The "Desultory" sections are to be played with rhythmic precision in order to achieve the proper effect. The "Ethereal" sections should be delicate in comparison to the other sections; however, it may be necessary for the performers to play above the dynamic levels indicated in order to adequately project in performance.
- Placement of the natural harmonic fingerings in the "Ethereal" sections are left to the discretion of the performers.

Optional tuning: The ensemble may be tuned to A=427 (see general prefatory notes for details).

Set-up: The violinist should stand to the right of the 'cellist, both of whom are to be angled inward toward one another. This setup should be downstage, though precise placement will be dependent on the other ensembles involved in a given realization of *An Unaware Cosmos*.

Symbols:



The Illusion of Permanence

from *An Unaware Cosmos*









for percussion and piano (or harp)

If I were to suggest that between the Earth and Mars there is a china teapot revolving about the sun in an elliptical orbit, nobody would be able to disprove my assertion.... But if I were to go on to say that, since my assertion cannot be disproved, it is intolerable presumption on the part of human reason to doubt it, I should rightly be thought to be talking nonsense.

- Bertrand Russell, "Is There a God?" (1952)

In our reasonings concerning matter of fact, there are all imaginable degrees of assurance, from the highest certainty to the lowest species of moral evidence.

A wise man, therefore, proportions his belief to the evidence.

— David Hume, An Enquiry Concerning Human Understanding (1748)

Performance Notes

Instrumentation: percussion (vibraphone; 3 crotales: G₆, D₇, B₇; 3 tam-tams) and piano (or harp)

Properties: Recurring, passive.

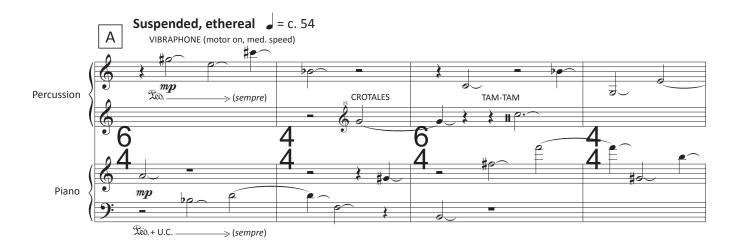
Interpretation:

- The six episodes of this module—indicated by rehearsal letters A through F, and separated by caesuras and long fermatas—should be played sequentially (either forward or backward) whenever possible. At times, however, it may be necessary to disrupt the sequential order of the episodes in order to better accommodate the other modules.
- These episodes may enter at any time throughout a given realization of *An Unaware Cosmos*, separated by no less than 20 seconds between iterations.
- Each episode must be played at least once: while episodes B through E may be played more than once, episodes A and F may be played no more than once each.
- Tempo must be even throughout and the sound should be resonant, continuous, and evenly balanced between the instruments; the short fermatas that occur in mm. 14, 31, and 39 should be interpreted as slight hesitations in the otherwise regular flow of the music in this module.
- The percussionist must depress the vibraphone pedal throughout; the pianist must depress both the sustain and una corda pedals throughout. Performers may wish to use weights to keep the respective pedals depressed.

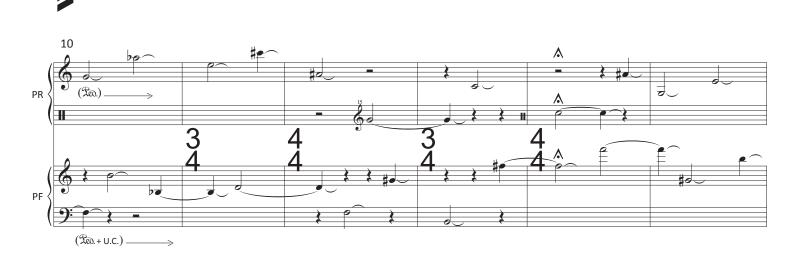
Set-up: The performers should be set up in such a way as to clearly define their physical space among the other ensembles in a given performance.

from *An Unaware Cosmos*

Joseph Klein 2012/15







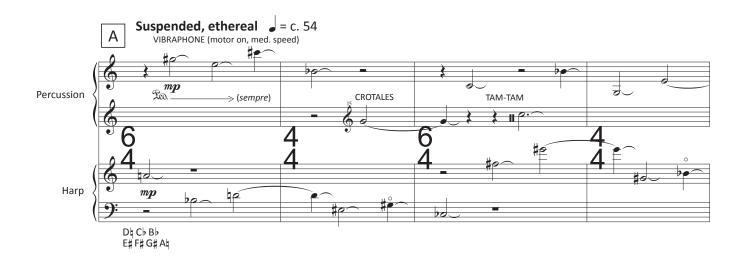
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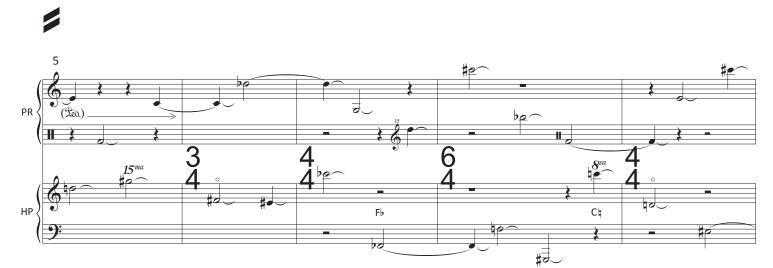


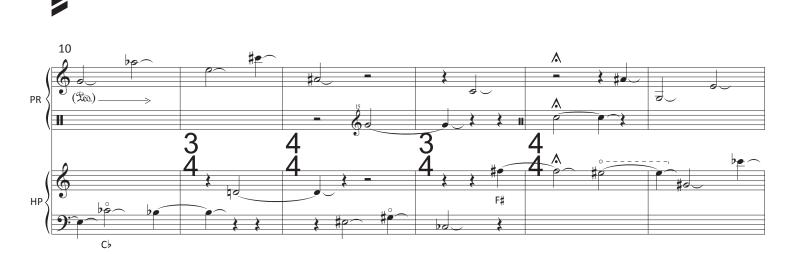


from *An Unaware Cosmos*

Joseph Klein 2012/15







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for contrabassoon (or B) contrabass clarinet) and two percussion

All appearances to the contrary, the only watchmaker in nature is the blind forces of physics....

A true watchmaker has foresight: he designs his cogs and springs, and plans their interconnections, with a future purpose in his mind's eye. Natural selection, the blind, unconscious, automatic process which Darwin discovered... has no purpose in mind... If it can be said to play the role of watchmaker in nature, it is the blind watchmaker.

- Richard Dawkins, The Blind Watchmaker (1986)

The universe is the way it is, whether we like it or not. The existence or nonexistence of a creator is independent of our desires. A world without God or purpose may seem harsh or pointless, but that alone doesn't require God to actually exist.

- Lawrence M. Krauss, A Universe from Nothing (2012)

Performance Notes

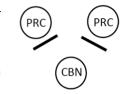
Instrumentation: contrabassoon (or B) contrabass clarinet), 2 percussion (4 woodblocks; log drum(s) with 4 pitches). The percussionists use two mallets in each hand throughout: *forzandi*/accented notes are to be played with hard mallets (plastic, hard rubber); all other notes to be played with medium yarn mallets.

Properties: Continuous or recurring, assertive.

Interpretation:

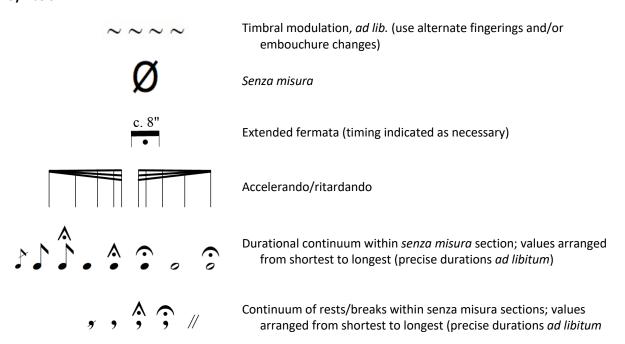
- This module is to proceed generally unaffected by disruptions from the other modules; however, the duration of the repeating percussion mobiles between each contrabassoon phrase may be adjusted according to the placement of any concurrent module(s).
- Each system of music beginning in m.6 is approximately 15 seconds in duration, notwithstanding the extended fermatas at the end of each contrabassoon phrase. During these fermatas, the percussionists repeat as indicated until the contrabassoonist resumes playing, cuing the percussionists to resume.
- This module may be played continuously, or may be divided into two separate iterations; in the latter case, the break may occur wherever there is a caesura and a double bar. When resuming play following a break, players may begin either with the repeated percussion mobiles or at the contrabassoon entrance following the caesura.
- While the percussionists should maintain their individual tempi as accurately as possible, it is not necessary (nor even possible, due to the phasing repeated measures) for their parts to align with one another, or with the contrabassoon part, as indicated in the score.
- The final percussion mobile may continue for up to two minutes beyond the end of the final contrabassoon phrase, determined in part by the interaction of any concurrent module(s).

Optional tuning: The contrabassoon may be tuned to A=427 (see general prefatory notes for details).



Set-up: Players should set up with the percussionists standing directly behind the seated contrabassoonist (who is the featured performer in this module), as indicated in the diagram at the right.

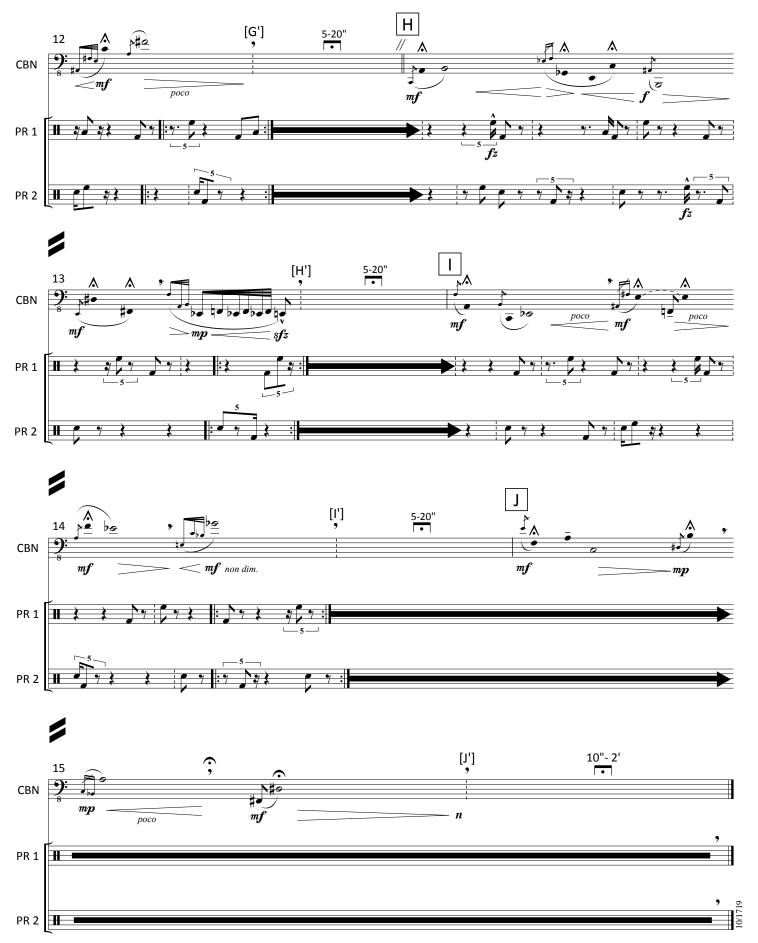
Symbols:



from An Unaware Cosmos







from An Unaware Cosmos







A Fleeting Symmetry

for guitar, harp, and harpsichord

What is this world? A complex whole, subject to endless revolutions. All these revolutions show a continual tendency to destruction; a swift succession of beings who follow one another, press forward, and vanish; a fleeting symmetry; the order of a moment.

— Denis Diderot, Lettre sur les aveugles (1749)

Once we overcome our fear of being tiny, we find ourselves on the threshold of a vast and awesome Universe that utterly dwarfs—in time, in space, and in potential—the tidy anthropocentric proscenium of our ancestors.

— Carl Sagan, Pale Blue Dot (1997)

A Fleeting Symmetry

Performance Notes

Instrumentation: guitar, harp, harpsichord

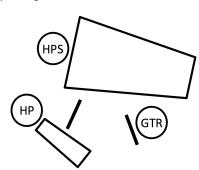
Properties: Recurring, neutral.

Interpretation:

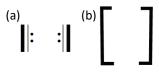
- The overall effect of this module is that of a series of expanding and contracting composite gestures in the three instruments: sections of contracting rhythm and expanding register (A sections) alternate with those of expanding rhythm and contracting register (B sections) throughout.
- Performers may begin with any A or B section, and proceed as indicated in the score.
- Each section is led by a different performer in the ensemble, who cues each gestural grouping; these are beamed between the three performers, and consist of a generating pitch (indicated with an open notehead) with ornamental elaborations (beamed grace-note figures).
- Transitions: the repeated passage at the end of each A section should be relatively short (no longer than five seconds or so) and somewhat frenetic, before players proceed without pause to the next B section; the repeated gesture at the end of each B section should imply a continued dissipation of the gestures before proceeding to the next A section.
- Each A/B pairing functions as an independent, self-contained unit, and no fewer than three complete A/B pairings are to be included in a given realization of *An Unaware Cosmos*.
- Sections should be played no more than one time each in a given realization.
- While performers may begin with either an A or B section, this module must always conclude with a B section, thus allowing the music to dissolve into the composite texture of the work.
- The harpist is to play *prés de la table* and the guitarist is to play *sul ponticello* throughout, thus resulting in a brighter timbre that better matches the sound of the harpsichord; likewise, the harpsichordist should sustain notes as much as possible in order to better match the natural resonance of the harp and guitar.

Optional tuning: The ensemble may be tuned to A=427 (see general prefatory notes for details).

Set-up: Players should be arranged in a rather tight formation, with the harp and guitar in front of the harpsichord, as indicated in the diagram at the right. Players should be able to see each other clearly in order to facilitate visual cues.



Symbols:



Repeat material in brackets: (a) repeat as written; (b) repeat freely (i.e., ordering of grouped elements may be changed)



Slight accelerando/ritardando in grace note groupings



Fermata continuum (arranged from shortest to longest)

Break in sound (release/dampen resonance of instruments)

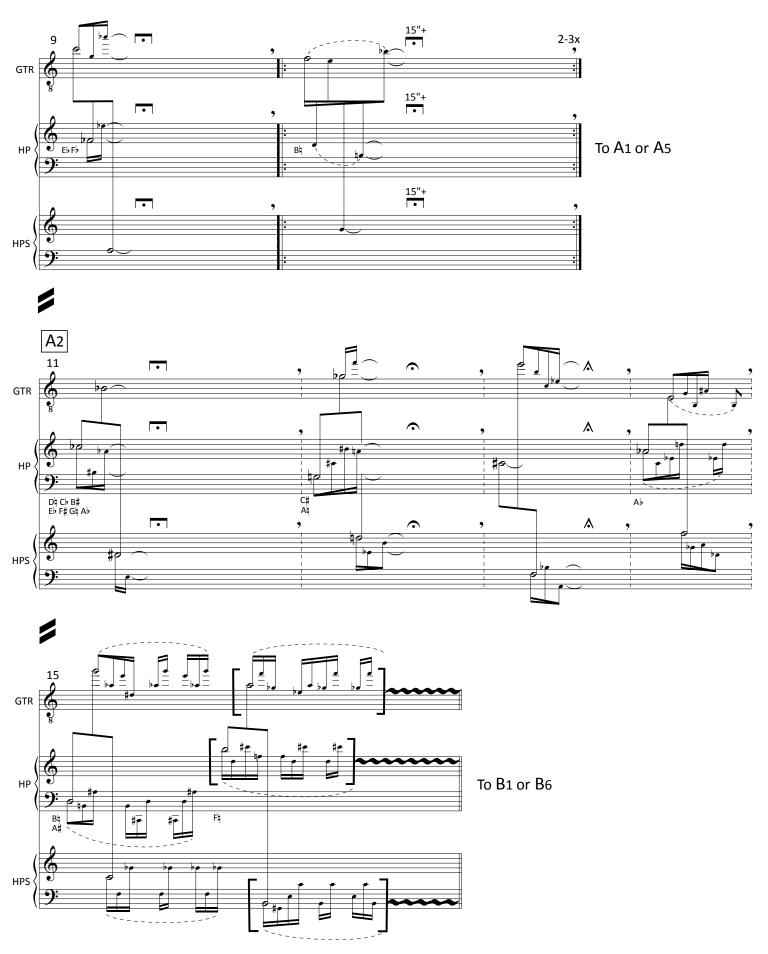
A Fleeting Symmetry

from An Unaware Cosmos

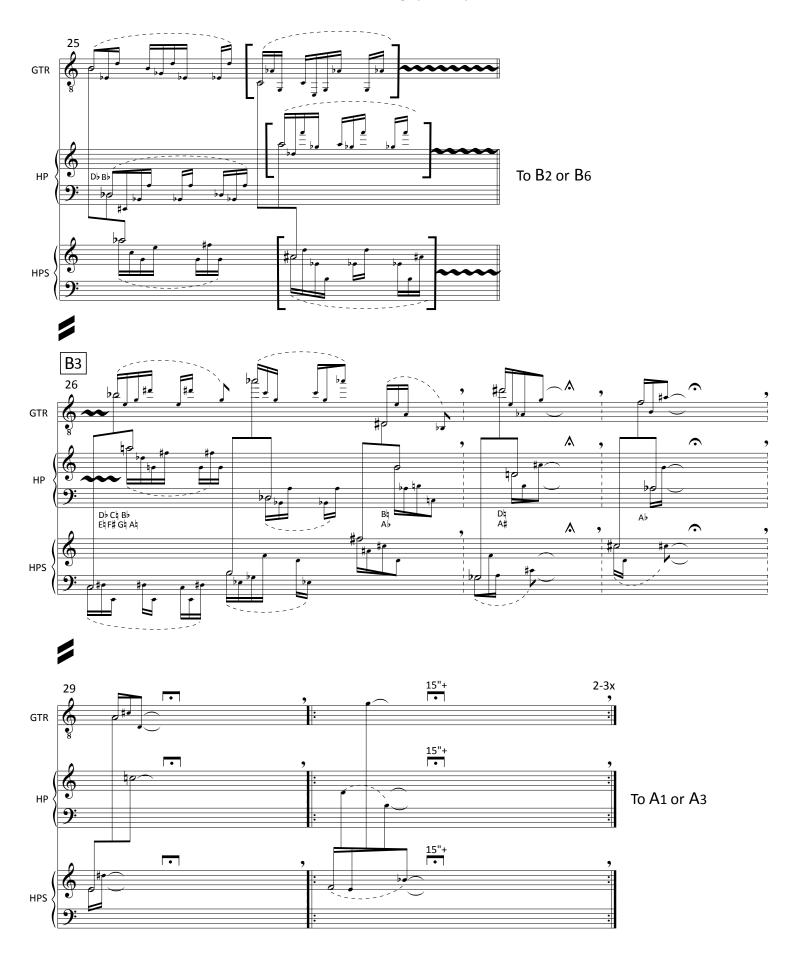
Joseph Klein



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On the Perimeter of Ignorance

for piccolo, celesta, and flexatone

Does it mean—if you don't understand something, and the community of physicists doesn't understand it—that God did it? ... If that's how you want to invoke your evidence for God, then God is an ever-receding pocket of scientific ignorance that's getting smaller and smaller and smaller as time moves on.

- Neil deGrasse Tyson (2011)

... I can live with doubt, and uncertainty, and not knowing. I think it's much more interesting to live not knowing than to have answers, which might be wrong.... I don't feel frightened by not knowing things, by being lost in the mysterious universe without having any purpose — which is the way it really is, as far as I can tell.

- Richard Feynman (1981)

On the Perimeter of Ignorance

Performance Notes

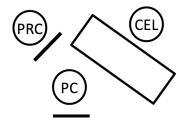
Instrumentation: piccolo, celesta, flexatone; the flexatone may need to be modified with moleskin wrapped around the wooden balls in order to achieve a proper balance within the ensemble.

Properties: Recurring, assertive.

Interpretation:

- This module consists of four individual episodes, labeled A through D. Each episode must be played once and only once in a given realization of *An Unaware Cosmos*.
- Players may begin with any episode and proceed either forward or backward through the sequence (e.g., BCDA, CBAD, etc.), playing all four episodes to complete a single cycle.
- Starting points are labeled A₁, A₂; B₁, B₂, B₃, B₄; C₁; D₁, D₂, D₃. In those episodes with multiple starting points (all but episode C), players may determine where to start based on the relationship to the other modules and the desired duration.
- This module may be played at any point during the performance, though it may not occur more than once during any one *continuous* module.
- Each system of music is approximately 8 seconds in duration; a range of target durations is indicated at the end of each episode, based on the various starting points.
- The piccolo player acts as the leader throughout, though none of the three instruments should attempt to play precisely together: the celesta should always lag slightly behind the piccolo, like an echo, while the flexatone should create a kind of "blur" between the other two instruments. The piccolo must always wait until the other two instruments arrive at the sustained note at the end of each figure before (immediately) proceeding to the next figure; this will result in brief, collective hesitations in the otherwise continuous activity throughout.
- As pitches are removed from the figuration in the course of each episode, the relationship between the three instruments should become increasingly erratic (although the dynamic level should be maintained throughout); the overall effect is that these gestures eventually break down and are subsumed by the silences. It is important that the piccolo and celesta avoid any rhythmic alignment of their parts, particularly as the gestures become increasingly sparse approaching the end of each episode.

Set-up: Players should set up with the celesta and percussionist (seated) positioned directly behind the seated piccolo player (who is the featured performer in this module), as indicated in the diagram at the right.



Symbols:



Rest continuum: relative durations arranged from shortest to longest



Extended fermata (break between episodes)

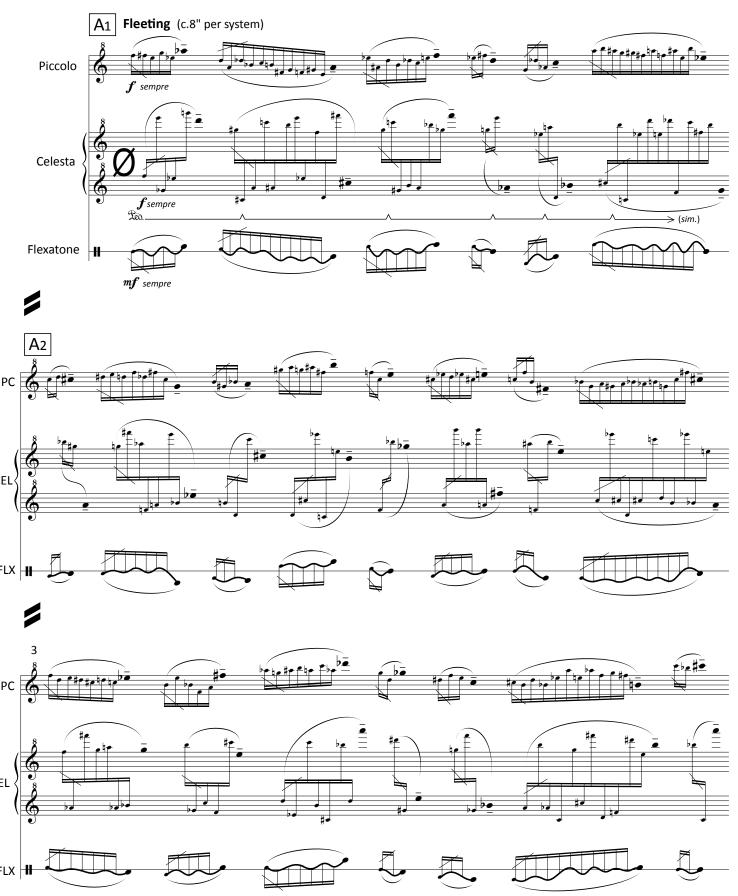


Senza misura

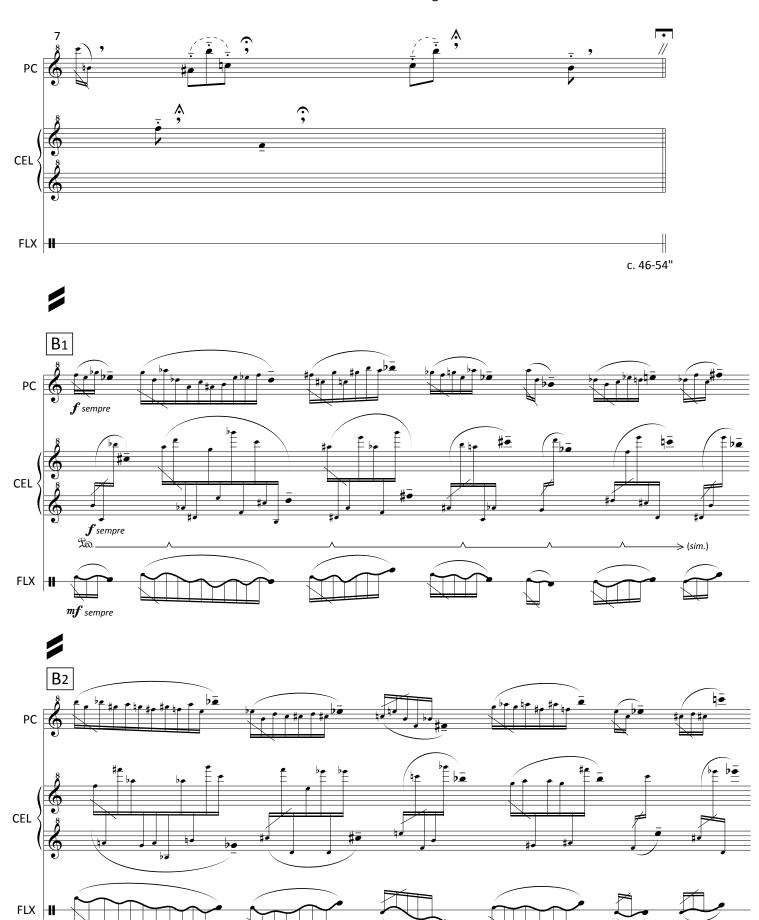
On the Perimeter of Ignorance

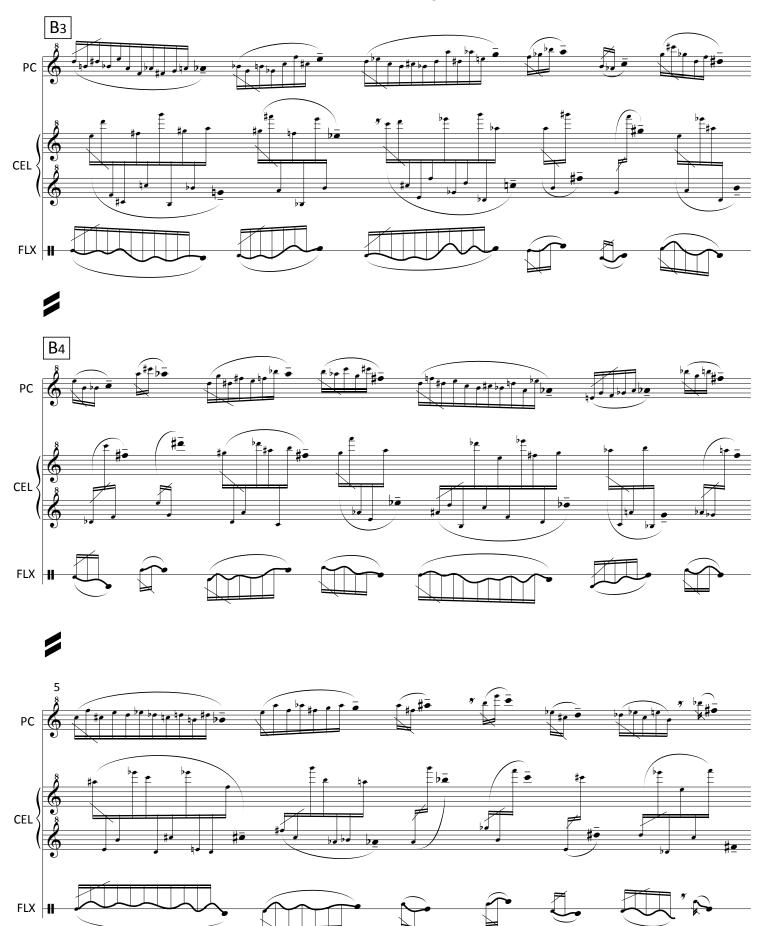
from An Unaware Cosmos

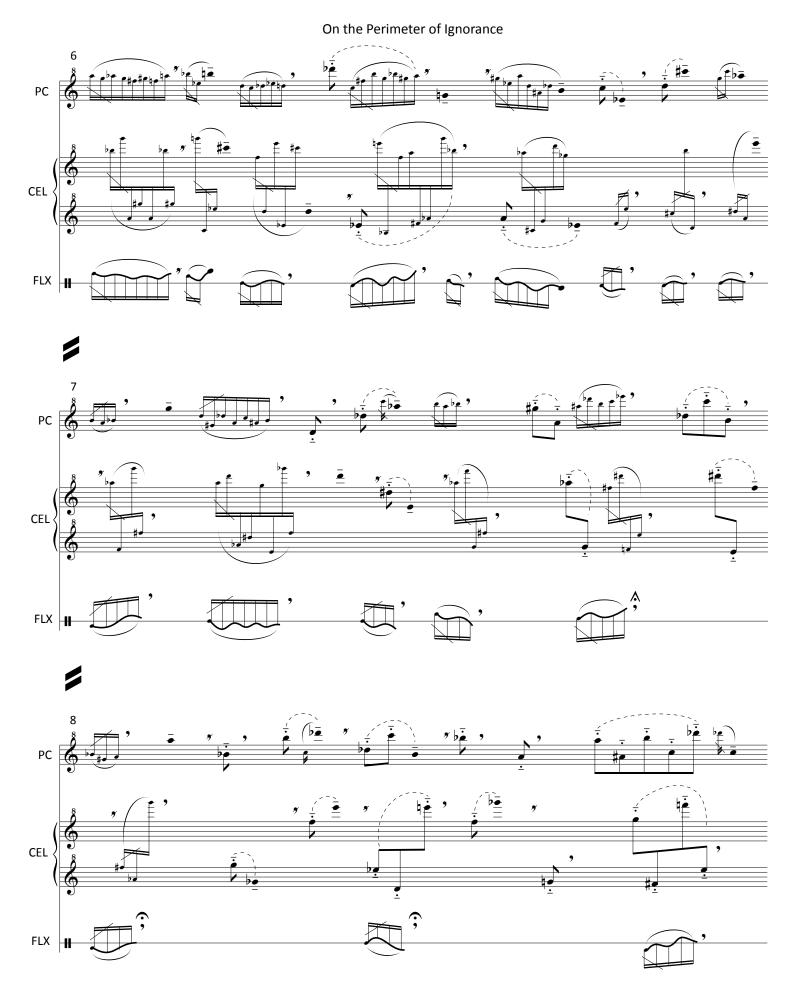
Joseph Klein 2016

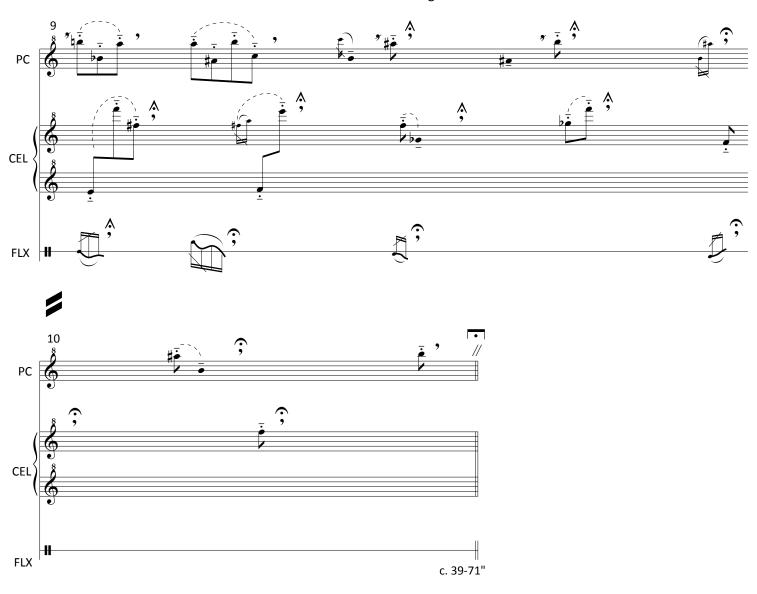




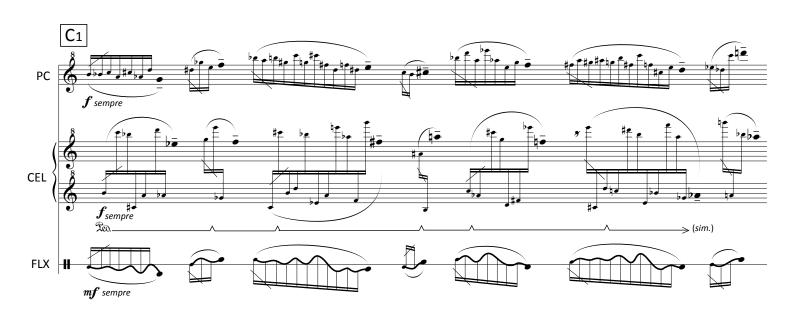


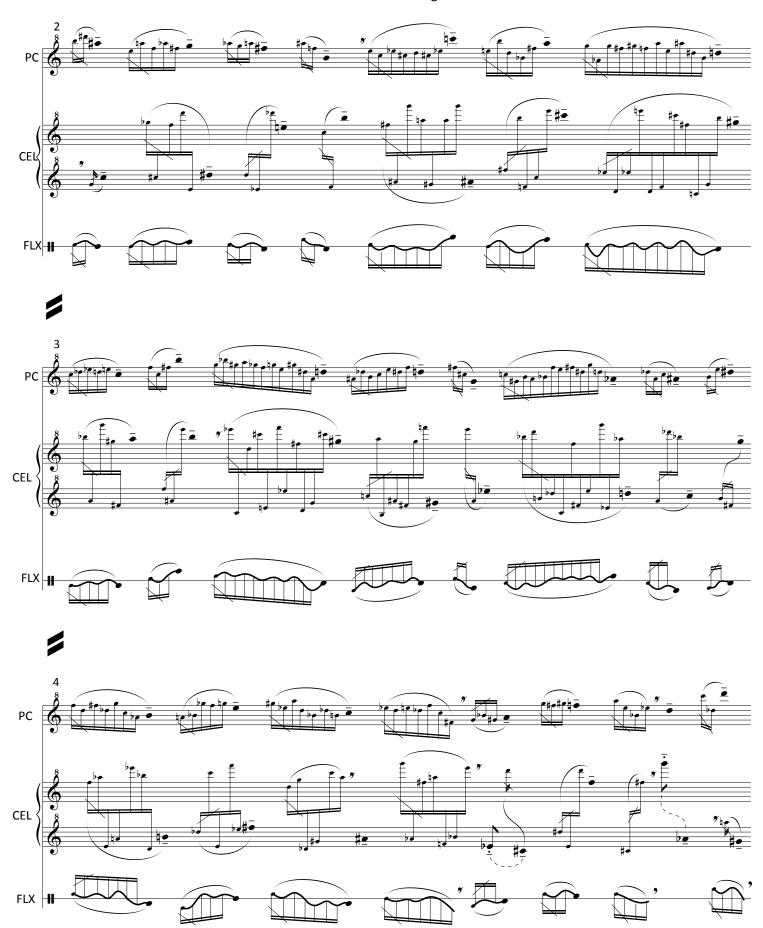




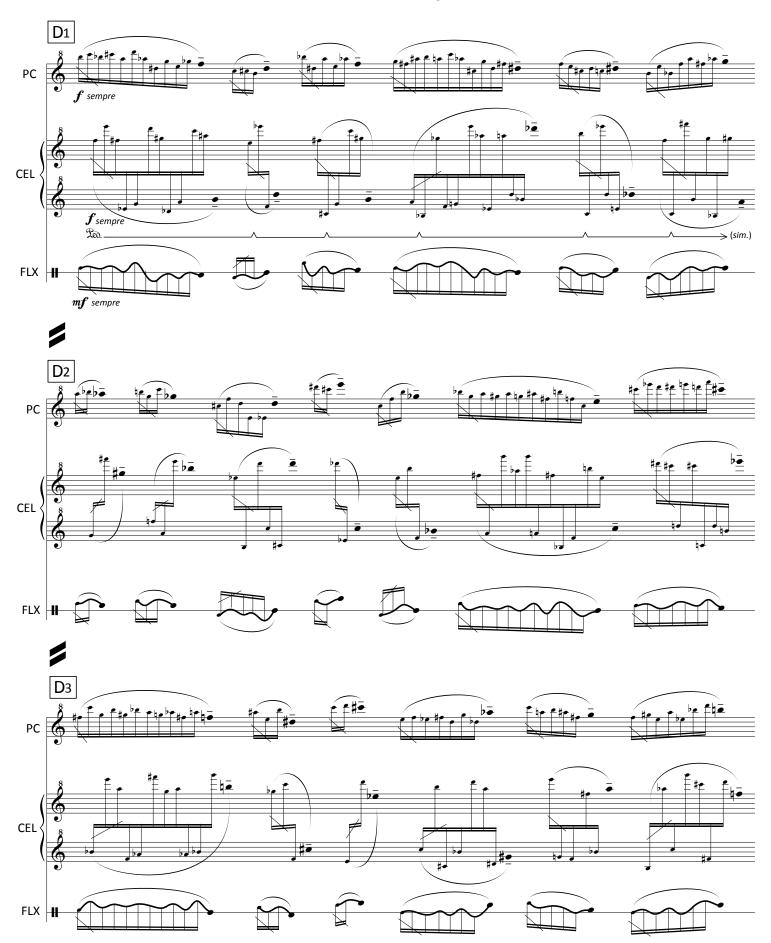
















A Delicate Geometry

for voice, electric guitar, and accordion

... I do not attribute to nature either beauty or deformity, order or confusion. Only in relation to our imagination can things be called beautiful or ugly, well-ordered or confused.

— Baruch Spinoza, Letter XV to Henry Oldenburg (c.1666)

The universe seems neither benign nor hostile, merely indifferent to the concerns of such puny creatures as we are.

— Carl Sagan, Cosmos (1980)

A Delicate Geometry

Performance Notes

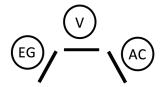
Instrumentation: voice (countertenor or mezzo-soprano), electric guitar, accordion (or harmonium, or portative organ)

Properties: Recurring, passive

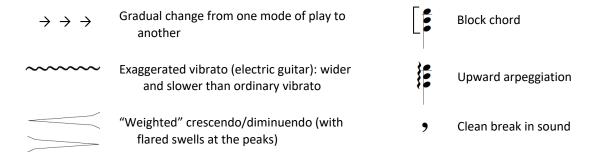
Interpretation:

- This module is set up as a loop of 18 related [self-similar] events; each event is a different duration and must be played in strict time (including the silences within the events).
- A given realization of *An Unaware Cosmos* may include between three and five iterations of this module; a given iteration may include no fewer than 5 and no more than 12 events.
- Performers may begin each iteration with any event, and may proceed in either direction; however, the direction must be reversed with each iteration (e.g., forward, backward, forward, backward, etc.), but must never change directions within a given iteration. Because the score is set up as a loop, the last event in the score (R) proceeds to the first event (A), and vice versa when performing the events in reverse order.
- Each iteration must begin no closer than three events away (in either direction) from the starting point of any previous iteration. Thus, performers should plan ahead of time where each iteration will begin and end.
- The vocal part consists of continuously fluctuating vowel sounds (indicated at the bottom of the part), which are rhythmically activated by consonant modifiers (indicate directly below the staff and above the vowel transformations). Phonemes are notated using IPA symbols.
- The electric guitar is to be played with a clean jazz tone; subtle vibrato should be used throughout, which is exaggerated at the points indicated in the score. Continuously changing chord voicings are intended to provide timbral variation throughout; string indications are at the beginning of each event. The guitarist may also, at his/her discretion, make alterations to the indicated chord voicings *ad libitum* within some or all of the longer events (e.g., B, F, H, K, O, Q) in order to further explore the timbral possibilities. All guitar notes should be allowed to resonate throughout the measure, only to be dampened before the silence at the end of each event.
- While the timbre of each part is distinctive, the three performers should strive to create a composite, organic sound throughout.

Set-up: The ensemble should be set up in a rather tight semi-circle, as indicated in the diagram at the right. All three performers should be able to see each other for cues. Although all parts are equally prominent, the vocalist should act as the leader, giving subtle visual cues as necessary.



Symbols:



A Delicate Geometry

from An Unaware Cosmos

Joseph Klein 2017





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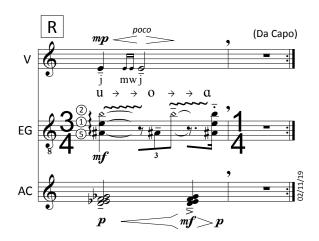












La Contagion sacrée

for trumpet, horn, trombone, and percussion (optional)

How could the human mind progress, while tormented with frightful phantoms, and guided by men, interested in perpetuating its ignorance and fears? Man has been forced to vegetate in his primitive stupidity: he has been taught stories about invisible powers upon whom his happiness was supposed to depend. Occupied solely by his fears, and by unintelligible reveries, he has always been at the mercy of priests, who have reserved to themselves the right of thinking for him, and of directing his actions.

- Baron d'Holbach, Good Sense (1753)

How long, O how long will mankind worship a book? How long will they grovel in the dust before the ignorant legends of the barbaric past? How long, O how long will they pursue phantoms in a darkness deeper than death?

— Robert Ingersoll, Heretics and Heresies (1874)

La Contagion sacrée

Performance Notes

Instrumentation: C trumpet, F horn, trombone (or 3 F horns); percussion (optional, one player: afuche, shaker, or sand blocks, *ad libitum*)

Properties: Sectional, assertive.

Interpretation:

- This module is divided into five sections—indicated by rehearsal letters A through E, and separated by caesuras and long fermatas—which must be played in sequence.
- Durations of the extended fermatas are dependent on the relationship to any concurrent module(s), but must not exceed the limits specified in the score; the entire module should occur within a seven- or eight-minute period.
- The third and most substantial of the five sections (C) is considered the main body of this module: the *senza misura* passage within section C (mm.40a-40c) is to be prominently featured; therefore, no active or assertive music from another module should occur during this section.

Optional tuning: The ensemble may be tuned to A=427 (see general prefatory notes for details).

Set-up: Performers are to stand side-by-side; if on the main stage, performers should be located upstage and angled toward center stage; depending on the other ensembles involved in a given realization, it may be necessary for the performers to stand on risers.

from An Unaware Cosmos



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Pascal's Fallacy

for saxophone quartet

It seems to me that the idea of a personal God is an anthropological concept, which I cannot take seriously. I also cannot imagine some will or goal outside the human sphere.... A man's ethical behavior should be based effectually on sympathy, education, and social ties; no religious basis is necessary. Man would indeed be in a poor way if he had to be restrained by fear of punishment and hope of reward after death.

- Albert Einstein, "Religion and Science" (1930)

[Mankind] is not likely to salvage civilization unless he can evolve a system of good and evil which is independent of heaven and hell.

- George Orwell, "As I Please" (1944)

Pascal's Fallacy

Performance Notes

Instrumentation: saxophone quartet (soprano/alto, 2 alto/tenor, tenor/baritone)

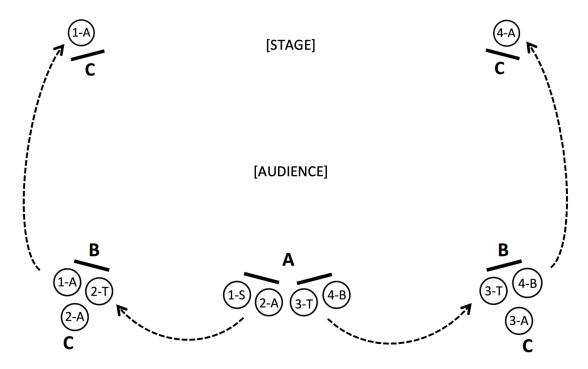
Properties: Recurring, assertive.

Interpretation:

- This module occurs three times, each with a different quartet permutation, interpretation of the score, and placement of instruments in the performance space (see set-up diagram below). Pauses between the three iterations must be at least 90 seconds in duration.
- There are two parts indicated in the score: players 1 and 2 play the top staff and players 3 and 4 play the bottom staff, as written (i.e., transposed), throughout the three iterations:
 - Iteration A SATB quartet: all players begin together in measure 1 and play in rhythmic unison throughout.
 - Iteration B two separated duos (AT/TB), played in canon: players 3-4 (TB) begin in measure 1; players 1-2 (AT) begin in measure 4 (as indicated in the score).
 - Iteration C four separated soloists (AAAA), played in canon: player 1 begins in measure 4; player 2 begins in measure 2; player 3 begins in measure 3; player 4 begins in measure 1 (as indicated in the score).
- Each iteration must be at least as long as a single pass through the score, and no longer than three complete passes (i.e., two repeats following the initial pass).
- It is not necessary for the two duos in Iteration B (or the four soloists in Iteration C) to strictly maintain the temporal relationships between them, though players should attempt to keep the tempo as consistent as possible throughout.
- Players must always begin and end together: each iteration must conclude on one of the sustained notes (at the end of a scalar gesture), which is to be held for at least five seconds without diminuendo, then abruptly cut off together.

Optional tuning: The ensemble may be tuned to A=427 (see general prefatory notes for details).

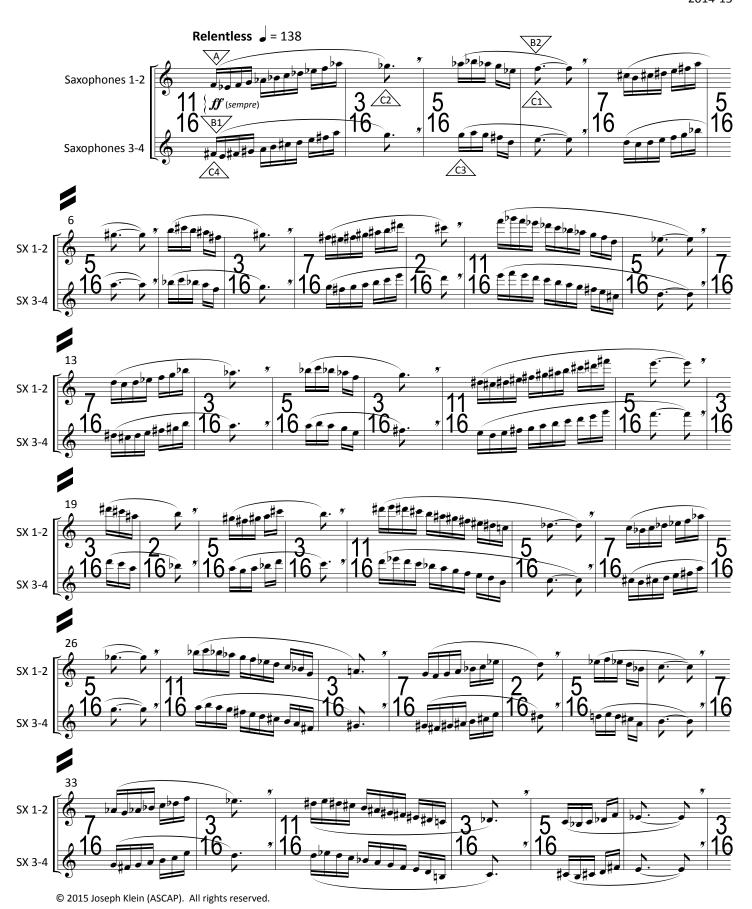
Set-up: Players are to be set up in a tight formation for Iteration A, preferably in a central position at the rear of the performance space; Iteration B is to be arranged as two antiphonal duos, preferably at the left and right rear of the performance space; players are to be widely dispersed in Iteration C, preferably in the four corners of the performance space:



Pascal's Fallacy

from *An Unaware Cosmos*

Joseph Klein 2014-15





Glorious Accidents

for four mixed double reeds and/or saxophones

We are glorious accidents of an unpredictable process with no drive to complexity, not the expected results of evolutionary principles that yearn to produce a creature capable of understanding the mode of its own necessary construction.

- Stephen Jay Gould, Full House (1996)

A universe without purpose should neither depress us nor suggest that our lives are purposeless. Through an awe-inspiring cosmic history we find ourselves on this remote planet in a remote corner of the universe, endowed with intelligence and self-awareness. We should not despair, but should humbly rejoice in making the most of these gifts, and celebrate our brief moment in the sun.

- Lawrence M. Krauss (2012)

Glorious Accidents

Performance Notes

Instrumentation: 4 mixed double reeds and/or saxophones; the quartet must include at least three different instruments (e.g., 2 oboes, English horn, bassoon; oboe, bassoon, alto and tenor saxophones; SATB saxophone quartet).

Properties: Recurring, neutral.

Interpretation:

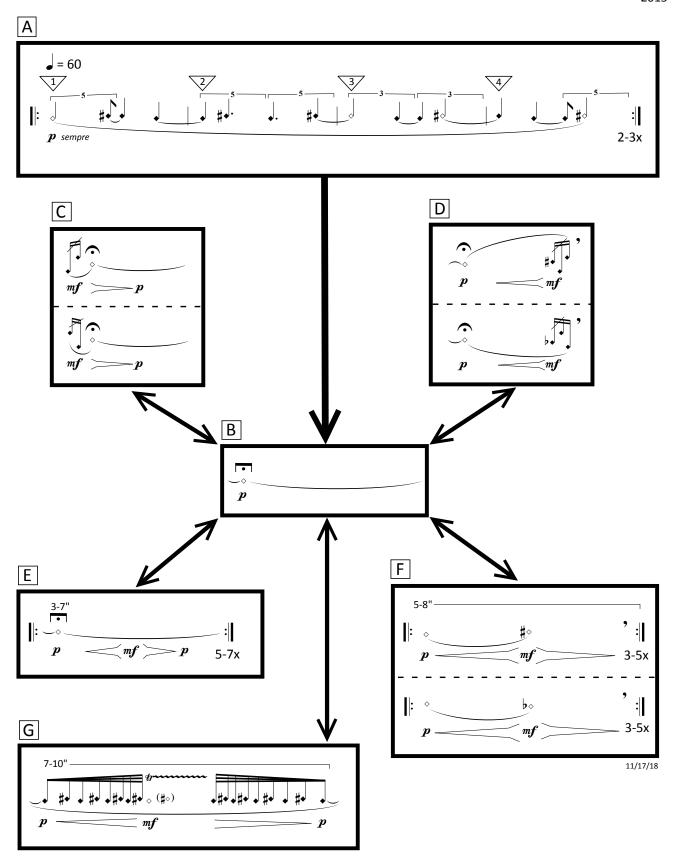
- This module, which consists entirely of multiphonics, may be played two or three times in a given realization of *An Unaware Cosmos*, with each iteration lasting 90 seconds to 5 minutes in duration. There are no restrictions on the placement of or time between iterations, though it is preferable for each entrance of this module to be unnoticeable (i.e., occurring concurrently with one or more of the more assertive modules).
- Each performer is to select three or four *distinct* multiphonics and a *related* multiphonic for each (i.e., similar fingering, with perhaps the addition/release of one or two keys/holes; indicated in the score by accidentals), for a total of six or eight multiphonics in each instrument. It is preferable if the related multiphonics are also sonically similar, though this is not absolutely necessary (and may not be possible) in all cases. If two of the same instrument are included in the ensemble, selected multiphonics for those instruments should be mutually exclusive.
- Performers are to select multiphonics that would be characterized as "rough" rather than pure—i.e., those with a high noise content. All multiphonics should be easily controlled and playable at relatively soft dynamic levels, and should be usable with all of the events indicated in the score. In spite of the raucous character of the multiphonic sounds, the overall character of this module should be rather introspective, subdued, and static throughout.
- The ensemble should function as a single unit throughout, blending to create a dense composite sound, with no single instrument standing out. To that end, performers should play *tutti* almost exclusively, and must carefully stagger breathing throughout in order to achieve this effect; at no point should fewer than two instruments be sounding at a given time.
- Performers should attempt to explore all possible multiphonic combinations by following the suggestions in the open modular score, which is to be interpreted as follows:
 - Each iteration of this module begins with Event A, which is the only event that must be coordinated between the four players. Players begin together, each starting on a different measure (as indicated by the triangular cues), and repeating the material two or three complete times; during the final repeat, players proceed immediately to the next event (B) in succession, once each reaches the end of Event A. In subsequent iterations of this module, players are to select different multiphonics for use in Event A; suggestions include: (a) all instruments play relatively high multiphonics; (b) all instruments play relatively low multiphonics; (c) high instruments play low multiphonics, low instruments play high multiphonics; (d) multiphonics distributed over several registers.
 - Event B is the "default" position: performers may move freely and continuously between the remaining events (C through G), always returning to B in between. Open-ended ties imply that a given multiphonic continues between events; changes should occur only where clear breaks are indicated (i.e., Events C, D, and F).
 - Players should always consider their contribution to the composite sound when selecting events, and interact with one another accordingly. While it is perhaps preferable to select unique events as much as possible, it is unavoidable that players will occasionally converge on the same event, which will allow them to explore some interesting interactive possibilities.
 - Attacks and releases should be subtle for the most part, allowing the multiphonics to emerge and submerge into the prevailing texture; however, Events C and D consist of alternate attack/release gestures, respectively, which will be inherently more obtrusive to the overall texture.
 - In Events C, D, and F, players may choose between the gestures on either side of the broken line.
 - One player in the ensemble should be selected ahead of time to give the cue to terminate each iteration of this module, upon which all players are to return to Event B, sustain momentarily, then release together.

Set-up: Players should be seated in a very tight circular formation, facing each other and reading from two music stands (see diagram at right). The ensemble's placement in the performance space should be unobtrusive. Similar instruments should be placed non-adjacently (e.g., 1-3 or 2-4).

Glorious Accidents

from *An Unaware Cosmos*

Joseph Klein 2015



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Transient Dominion

for Flugelhorn (or trumpet), bass trombone, percussion, and piano

Look in the mirror, and don't be tempted to equate transient domination with either intrinsic superiority or prospects for extended survival.

— Stephen Jay Gould, Full House (1996)

Man is a marvelous curiosity ... he thinks he is the Creator's pet ... he even believes the Creator loves him; has a passion for him; sits up nights to admire him; yes and watch over him and keep him out of trouble. He prays to him and thinks He listens. Isn't it a quaint idea?

— Mark Twain, Letters from the Earth (c.1909)

Transient Dominion

Performance Notes

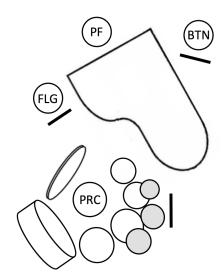
Instrumentation: C Flugelhorn (or C trumpet), bass trombone, percussion, piano. The percussion part requires three splash cymbals, a medium tam-tam, four tom-toms, and a bass drum, all to be played with snare drum sticks throughout. All tom-tom rolls should be performed as open rolls; cymbals and tam-tam should be struck at the edges with the shaft of the stick. If possible, the bass drum should be struck with the butt of the stick.

Properties: Intermittent, assertive.

Interpretation:

- This module may occur at any point throughout a given realization of *An Unaware Cosmos*, and is divided into seven episodes—indicated by rehearsal letters A through G, and separated by caesuras and fermatas in the score.
- Players must begin with Episode A, after which the remaining episodes may be played in any order.
- There is no maximum duration for pauses between episodes, but in no case should they be less than 30 seconds in duration.
- Each of the episodes must be played once and only once in a given realization of *An Unaware Cosmos*. The fermatas on the final note of each episode should be held as long as the brass players can sustain them; percussion and piano should continue to resonate after the brass cut off.

Set-up: Performers should be set up as indicated at the right, with the Flugelhorn and bass trombone flanking the piano (on the treble side and bass sides, respectively), preferably standing. The piano lid should be opened at full stick, or removed from the piano completely so as not to obstruct the view of the performers and to allow maximum volume from the instrument. Because the percussion is featured in this module, the battery should be set up in front of the accompanying instruments.



Symbols:



Accelerando/ritardando (within the duration indicated)

5

Short/longer break in sound (without disruption in tempo)

Transient Dominion

from An Unaware Cosmos

Joseph Klein 2012/14





















Shadows on the Horizon

for string quartet

When men yield up the privilege of thinking, the last shadow of liberty quits the horizon.

— Thomas Paine, Reflections on Titles (1775)

Fix reason firmly in her seat, and call to her tribunal every fact, every opinion. Question with boldness even the existence of a God; because, if there be one, he must more approve of the homage of reason, than that of blindfolded fear.

— Thomas Jefferson, Letter to Peter Carr (1787)

Shadows on the Horizon

Performance Notes

Instrumentation: 2 violins, viola, violoncello

Properties: Recurring, assertive.

Interpretation:

- This module may be played any number of times during a given realization of *An Unaware Cosmos*: the initial iteration must begin in either measure 1 or measure 49, and may conclude at any point in the score; subsequent iterations are to begin at the point where the previous iteration left off.
- A performance of this module must include at least one complete pass through the score; the *da capo* repeat at the end of the score may occur as many times as necessary.
- No iteration should be less than 20 seconds in duration; the maximum duration of any given iteration should be no more than one complete cycle of the score.
- Players must stagger all entrance and release points at the beginning and end of each iteration of this module: every iteration must begin with the up-bowed/crescendo part; players with a down-bowed/diminuendo part do not play until their first up-bowed/crescendo entrance that follows the initial entrance. Conversely, each iteration must end with the completion of a down-bowed/diminuendo (al niente) part. For example, an iteration starting in measure 13 and ending in measure 36 would begin and end as follows (compare example below to printed score):

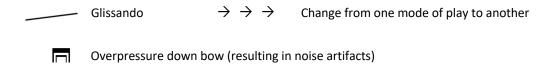


- Tempo may fluctuate throughout the movement (between MM 45 and 90), though any tempo changes must always be smooth, never abrupt. The numbers in the middle of each system indicate the number of beats in each measure.
- The continuous swells in each part will differ in duration, but all should "crest" in an equally aggressive manner, with heavy bow pressure to the point of breaking the sound. Players should always exaggerate the glissando and crescendo into the down-bowed dyad and must strive for a consistent sound (particularly concerning the overpressure down bows) between the four parts.

Optional tuning: The ensemble may be tuned to A=427 (see general prefatory notes for details).

Set-up: Players should be set up in the standard string quartet formation, though spread out more than usual (approximately 6 to 8 feet between performers).

Symbols:

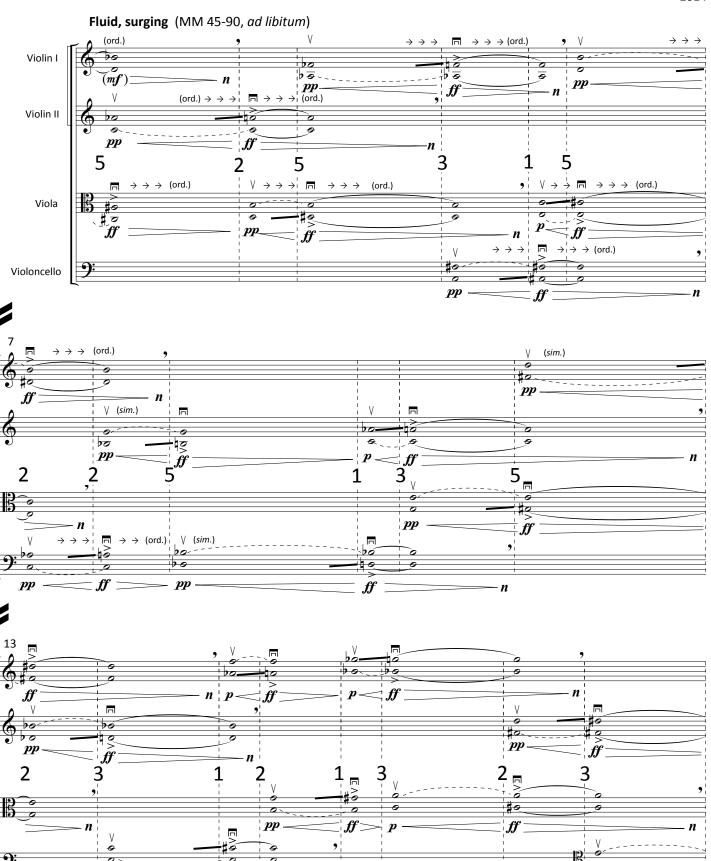


Shadows on the Horizon

from An Unaware Cosmos

Joseph Klein 2014

pp



VN I

VN II

VA

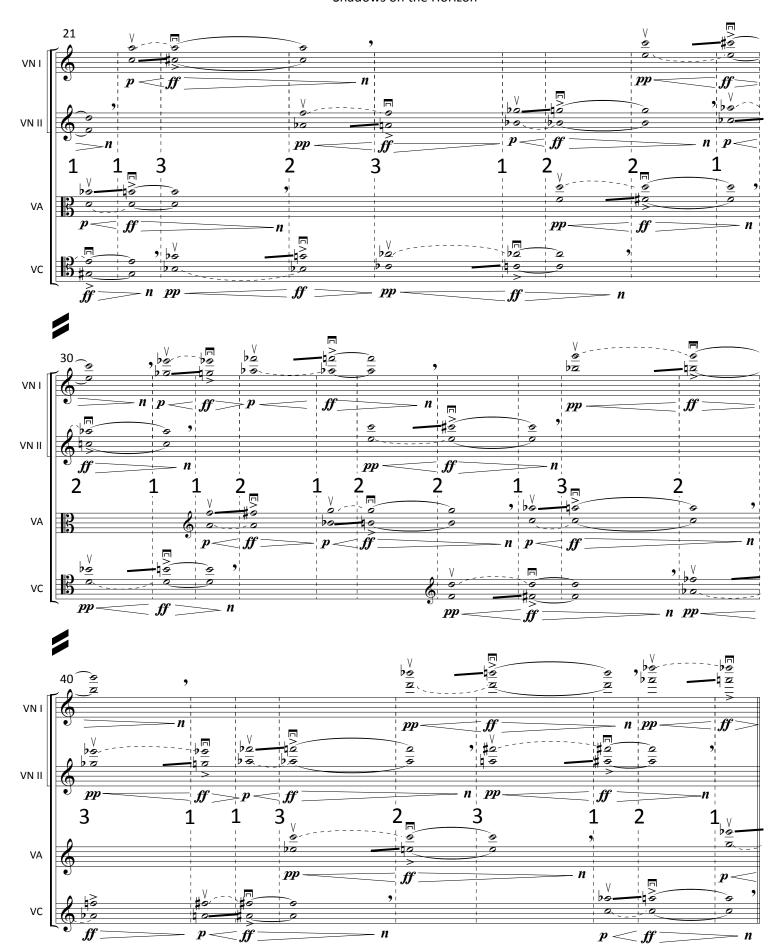
VN I

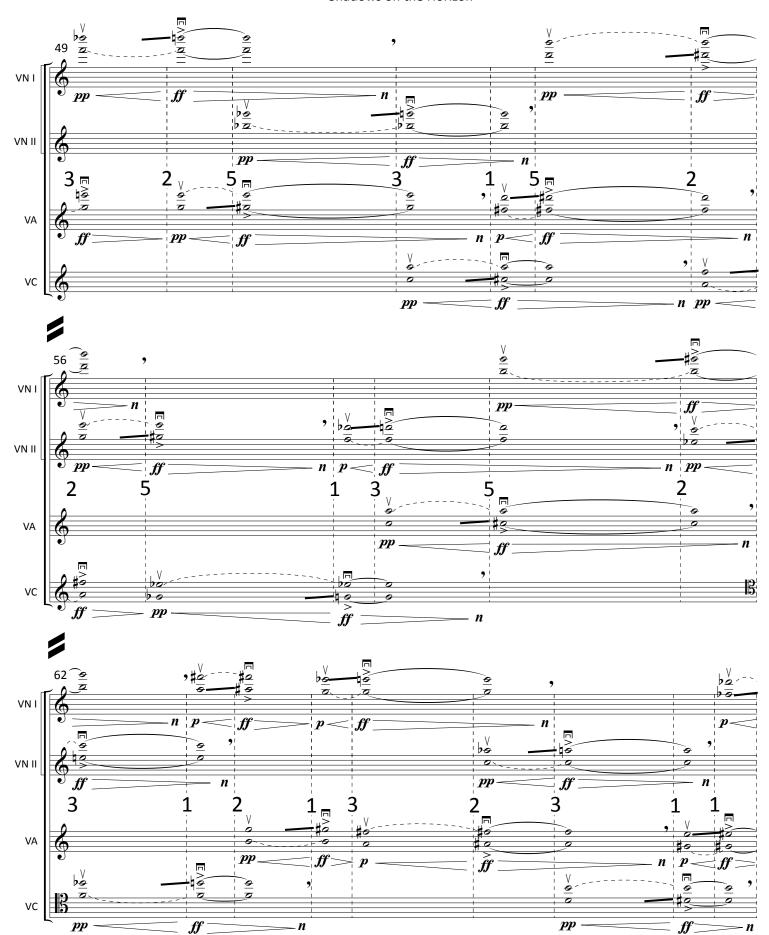
VN II

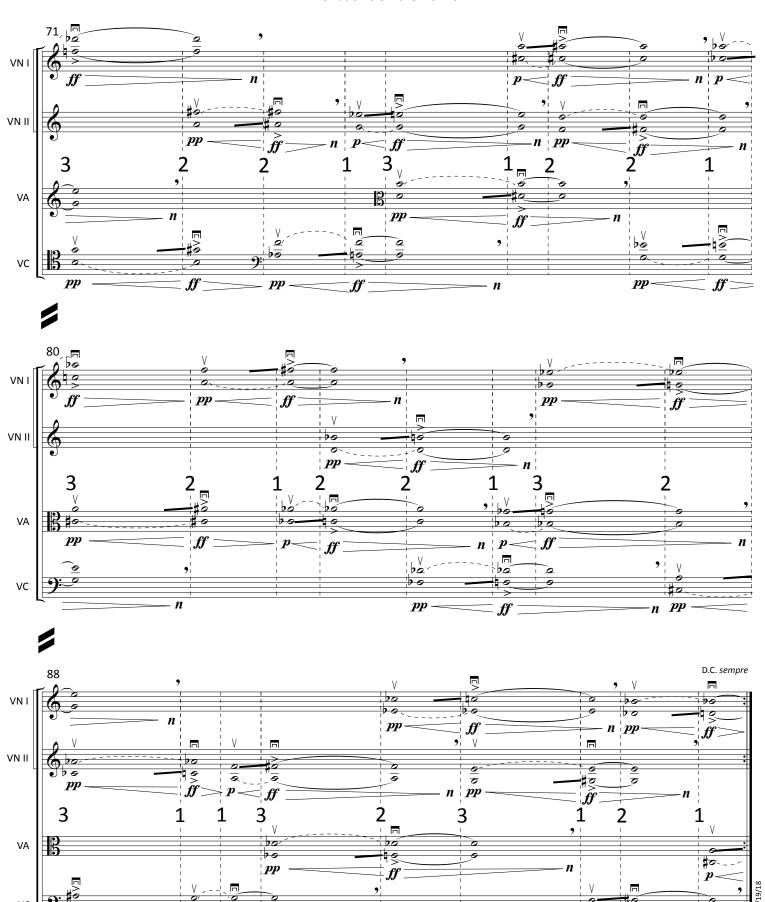
VA

VC

n







The Indelible Stamp of Our Lowly Origin

for four contrabasses

... with all his noble qualities, with sympathy which feels for the most debased, with benevolence which extends not only to other men but to the humblest living creature, with his god-like intellect which has penetrated into the movements and constitution of the solar system — with all these exalted powers—

Man still bears in his bodily frame the indelible stamp of his lowly origin.

— Charles Darwin, The Descent of Man (1871)

We are just an advanced breed of monkeys on a minor planet of a very average star. But we can understand the Universe. That makes us something very special.

- Stephen Hawking (1988)

The Indelible Stamp of Our Lowly Origin

Performance Notes

Instrumentation: 4 contrabasses

Properties: Continuous or sectional, neutral.

Interpretation:

- The work is in three sections—labeled A, B, and C in the score—which must be played in sequence.
- The three sections may be played continuously without breaks; alternatively, this module may be broken into independent episodes by interpolating pauses between any or all of these sections. Thus, the following realizations are possible:
 - A+B+C (continuous, no pause)
 - A [pause]; B+C
 - A+B [pause]; C
 - A+B [pause]; B+C
 - A [pause]; B [pause]; C
 - A [pause]; B [pause]; B+C
 - A+B [pause]; B [pause]; C
 - A+B [pause]; B [pause]; B+C
- There is no maximum duration for pauses between episodes, but in no case should they be less than 60 seconds.
- In those instances where section B is played together with either A or C in a given iteration, repeats in that section are optional; where B is played as an independent episode, it should be repeated at least three times.
- The fermatas at the end of m.35 and m.41 are optional, and are to be used only at the beginning or end of a given iteration (in cases where pauses are interpolated between sections), and never in the middle of an iteration.
- In non-continuous realizations of this module, the beginning and ending of each iteration may be interpreted in any of the following ways:
 - Ending section A: sustain and fade out over 10 to 20 seconds during fermata in m. 35.
 - Ending section B: repeat *ad libitum*; fade out over 10 to 20 seconds during one of these repeats.
 - Ending section B: repeat ad libitum; sustain and fade out over 10 to 20 seconds during fermata in m. 41.
 - Beginning section B: fade in over 10 to 20 at fermata in m. 35 before resuming play; repeat ad libitum.
 - Beginning section B: players enter at arrows (staggered entrances) in m. 36; repeat ad libitum.
 - Beginning section C: fade in over 10 to 20 at fermata in m. 41 before resuming play.
 - Beginning section C: players enter at arrows (staggered entrances) in m. 42.

Optional Tuning: The ensemble may be tuned to A=427 (see general prefatory notes for details).

Set-up: The four bassists should be arranged in a slightly curved row (so as to see each other while playing), about 2 to 3 feet apart, preferably along a wall (either on stage or elsewhere in the hall).

The Indelible Stamp of Our Lowly Origin

from An Unaware Cosmos



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La vanité des superstitions

for alto flute, English horn, bass clarinet, horn, and bassoon

The more I advanced in age and knowledge, the more I recognized the blindness and viciousness of men, the more I recognized the vanity of their superstitions and the injustice of their evil governments.

— Jean Meslier, Testament (1729)

It is thus superstition infatuates man from his infancy, fills him with vanity, and enslaves him with fanaticism.

— Baron d'Holbach, The System of Nature (1770)

La vanité des superstitions

Performance Notes

Instrumentation: alto flute, English horn, bass clarinet, horn, bassoon

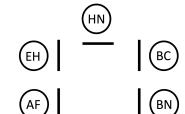
Properties: Sectional, varied

Interpretation:

• The work comprises three types of events, labeled A, B, and C in the score:

- A: Consists of widely voiced chords in rhythmic unison, characterized by angular lines, sharp attacks, and irregular rhythms.
- B: Consists of sharply articulated clusters in the higher register of the ensemble, often incorporating extreme tempo fluctuations. Unlike sections A and C, it is possible to play two events in this section within a single iteration—which will be necessary if all eight events are to be played in a given realization of the work. One of the chords in measure [1] may be inserted before and/or after playing any of the events in this section within any given iteration.
- C: Consists of three independently moving passages: C-I (for bass clarinet and bassoon) is a continuous line characterized by irregular rhythms and parallel dyads; C-II (solo horn) is a series of erratic interjections, which are generally disruptive to the composite texture of the other two groups; C-III (for alto flute and English horn) is a sequence of descending figures of varying lengths, each characterized by an incremental rhythmic expansion.
- A realization of this module consists of seven to twelve sections, alternating between each in the following sequence: ||: ABCABACBACBC :||; play may begin with any section, returning to the beginning of the sequence upon reaching the end.
- Within each of the three sections, play may begin at any point; each section is arranged as a loop (or in the case of section C, three independent loops), so that players may repeat as necessary.
- While all five instruments start together and play in rhythmic unison throughout sections A and B, section C consists of three layers: C-I and C-III begin together but proceed independently of one another, while C-II may interject at any point, though always in an irregular and erratic manner.

Set-up: Because the events within section C divide the ensemble into sub-groups, it is important that the performers are arranged accordingly; thus, the alto flute and English horn should be seated together, bass clarinet and bassoon should likewise be seated together, and the horn should be seated centrally between these pairs, as indicated in the set-up diagram at the right.





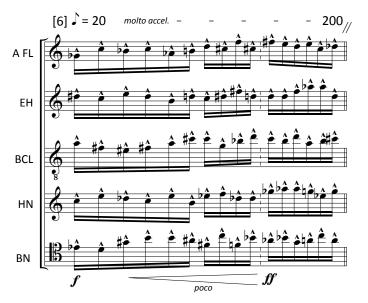


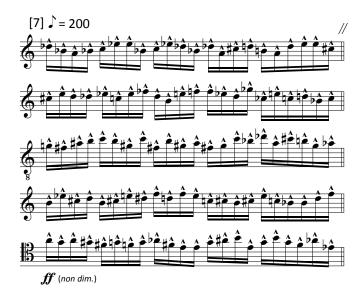


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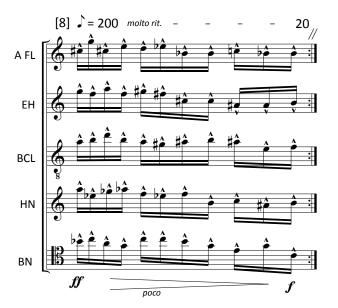
















Die Tyrannei der Mehrheit

for low brass and percussion

Where there have been powerful governments, societies, religions, public opinions—in short, wherever there has been tyranny—there the solitary philosopher has been hated; for philosophy offers an asylum to a man into which no tyranny can force its way, the inward cave, the labyrinth of the heart

— Friedrich Nietzsche, Untimely Meditations (1876)

That only a few, under any circumstances, protest against the injustice of long-established laws and customs, does not disprove the fact of the oppressions, while the satisfaction of the many, if real only proves their apathy and deeper degradation.

— Elizabeth Cady Stanton (late-19th c.)

Die Tyrannei der Mehrheit

Performance Notes

Instrumentation: low brass (four parts, up to three players per part, drawn from bass trumpets, euphoniums, Wagner tubas, and/or tubas, ad libitum); percussion (2 to 4 players: chimes, tam-tam(s), and resonant metallic instruments—gongs, bell plates, almglocken, etc.—ad libitum). More than two percussionists may divide the parts between these instruments as desired.

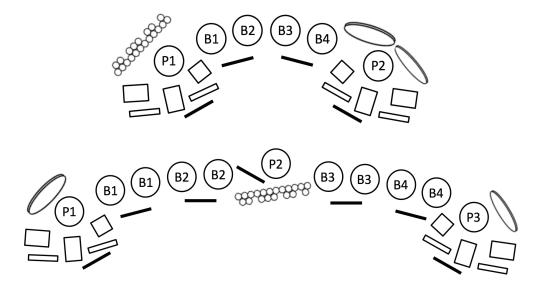
Properties: Intermittent, assertive.

Interpretation:

- This is perhaps the most disruptive module in the entire cycle, and should be deployed deliberately and somewhat sparingly during a performance. Pauses between iterations of this module should be no shorter than five minutes, and preferably longer than ten minutes.
- There are six separate episodes within this module—indicated by rehearsal letters A through F, and separated by caesuras and long fermatas—which may be presented in any order.
- A given realization of *An Unaware Cosmos* may include as few as three of the six episodes, depending on the overall duration and the number of modules included in the performance.
- The temporal relationships between brass attacks are indicated with broken lines; these attacks should be rhythmically irregular throughout. The final pitches in each brass part should fade into the percussion resonance.
- Following the initial attack in chimes and tam-tam, the percussionists alternate attacks on the miscellaneous metallic instruments (gongs, bell plates, almglocken, etc.) in a composite *ritardando*.
- Each of the six individual episodes in this module should last approximately 10-15 seconds (not including residual resonance from the percussion instruments, which may be considerable).

Optional tuning: The ensemble may be tuned to A=427 (see general prefatory notes for details).

Set-up: Players should be set up in a rather tight row, similar to a military phalanx; it is important that the physical presentation of this module is correspondingly imposing. Within this formation, the arrangement of percussionists and brass players must be symmetrical, with exact set-up dependent upon the number of performers involved. Below are two possible arrangements of the ensemble for this module:



This ensemble should be set up at the front of the performance space, in a prominent position but not blocking any of the other ensembles (e.g., on risers at the back of the main stage, or on a choral terrace behind the main stage).

Die Tyrannei der Mehrheit

from An Unaware Cosmos

Joseph Klein 2015

