MODAL INTEGRITY

By

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Abbreviations and Glossary

General

pc  pitch class
ic  interval class
i.v. interval vector [including interval classes between all members of a pc set]
c.v. center vector [like interval vector, but only tallying interval classes including the center pitch of a centric pc set]

( ) parentheses enclose pc numerals of a set in prime form, i.e. the set class, often with associated Forte number. Notice that use of T for ten and E for eleven makes use of commas to separate pitch numerals. Examples: (013568T) = 7-35 is the diatonic set, Forte no. 7-35; or (037) = all major or minor triads

stack a simultaneity, sonority, harmony, verticality--multiple pitch classes [written to] sound[ing] at once.

[ ] brackets enclose pc numerals of a pitch class set in anything other than prime form. Unless clearly melodic or otherwise specified, pc numerals in brackets should be understood as ordered (ascending), and with a meaningful zero, either 0 = center of a mode or scale, or 0 = lowest pitch or sounding root of a sonority. E.g. [07T] = open fifth plus minor seventh over root; [047] = a major triad; [023579T] = Dorian mode, different from [023578T] = Aeolian.

{ } curly braces enclose particular pitch classes, whether viewed as melodic vocabulary or as a stack. Named stacks or sonorities and other context should help clarify precise intent of pc sets specified in braces, and these particularities should clarify ambiguities in the bracketed pc set notations. E.g. suppose D is a modal and/or key signature center, then {07T} = open fifth plus minor seventh over center = DAC; {047} = a D major triad; {D, F, A} = a [037], that is, a minor triad, built on the center D; {023579T} = Dorian mode on D and 0 is its center.

< > V-brackets optionally may enclose an interval vector, that is the tallying numerals of the total interval class (ic) content of a set of pitches; or the center vector, those ic's which includethe center. E.g. the Dorian mode center vector, c.v. = <022020>, that is, there are zero occurrences of ic's 1, 4, or 6 relative to center, and two each of ic's 2, 3, and 5 relative to center, in the unaltered total pitch content of Dorian mode. A further example: the diatonic set [total] interval vector, i.v. = <254361>.

aim aim is a more generalized concept of major-ness and minor-ness; it is the continuum on which traditional ideas of major and minor are located. Introduced in Chapter 2. Discussed in Chapter 4.

anthologem innovated genre of choral anthem introduced to print through the example of TOMORROW, INSHA'LLAH in Gabriel's KAIROS FOR ALL tunebook. Discussed in Chapter Three.
Abbreviations and Glossary, concluded.

**Diatonic Modes** are all members of the diatonic set class (013568T), Forte number 7-35. Transposed to 0 = center, they are:

- IO  Ionian mode, [024579E]
- PH  Phrygian ", [013578T]
- AE  Aeolian [023578T]
- MX  Mixolydian [024597T]
- DO  Dorian [023579T]
- LY  Lydian [024679E]
- LO  Locrian [013568T]

Dorian mode appears in the analysis of the first chapter.
Introduction

Modal Integrity Situated

By mode, I mean a restricted pitch vocabulary which is maintained for a time and implies a center pitch. I mean restricted in the sense fewer than the popular equal-tempered chromatic twelve per octave. Center will receive discussion further along. A piece of music exhibits modal integrity if modes and modal forces are the crucial construction elements holding the piece together and propelling it through its course. Such compositional strategy is a structural sort of modal integrity. That is, restricted modal vocabulary and all its consequences are considered in relation to general materials and construction of a piece of music. Modal thinking is a vital part of the structural integrity of a total piece of music, even if perhaps as an agglomeration of strict modal pitch vocabulary regarded region-by-region: *regional modal integrity*.

Although my usage of *regional modal integrity* allows variation of pitch vocabulary in a piece overall, it also implies a certain scale of duration size which distinguishes my usage from a couple others, that is, from traditional tonality's device of "modal mixture", so-called (seems a misnomer to me—just a brief surface glimmer, not a part of structural integrity of a piece), and from many jazz players' ideas of modes useful for soloing over certain chords. Those usages are still plugging labels into a prevailing framework of common harmony progressions, whereas genuinely modal thinking will undermine that framework. As will be
elaborated, modal shaping forces include horizontal and vertical dimensions, that is melodic and stacking considerations.

I am examining thorough, extended, integral modal shaping forces and strategies for composition, forces which may prevail to a greater or lesser extent over the common practice solutions of tonality. Ernst Toch (1977) wrote a book I love, the very title of which was a formative revelation for me: *The Shaping Forces in Music: An Inquiry into the Nature of Harmony, Melody, Counterpoint, and Form*. Toch's thinking and excellent examples are firmly entrenched within Western art music tonality, and I think he misses entire dimensions, for example timbre and orchestration. Nonetheless, I have found incredibly fruitful the core idea he presents so well of splitting music into the very many dimensions implied by his eloquent title. Much of my musical thinking, wherever it goes, is framed in his core spatial metaphor. Modal integrity works when the dictates of harmony and voice-leading are relaxed, allowing melodies to stretch out and breathe, so to speak, following their own logic.

Focus on mode and structure relations requires constant attention to avoid either too fine a level of detail or too large and coarse a view. Perhaps it is not out of place to remind the reader already that Appendix One, including my "Introduction to Strategic Improvisation" with preliminary commentary, may likely be helpful in orienting the reader from a wide viewpoint on my ideas of musical shaping forces, just in case perspective is ever lost. Ideas about musical forces and dimensions useful for improvisers are also useful in describing and

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1 my criticism of Toch's boundedness mostly applies as well to that small portion of my own styles which I explore in this thesis. My greatly expanded strategies and creative musical thinking are perhaps best expressed in my live free improvisations, which have been mostly on hiatus in my notes-on-staff composing years here at Wesleyan. This wider thinking is described and explored in my syllabus / performers' rehearsal organization outline "Introduction to Strategic Improvisation", found here in Appendix One.
analyzing notated music, and in pre-compositional planning. Modal integrity and the concepts clustered around it have been useful compositional resources for me—good tools in my composer's toolbox. I explore and share them here.

One final clarification: this thesis is not historical survey of modal terms nor disambiguation, for example, of the conflations and confusions of modal terminology between the Greeks and Boethius. Rather, I focus for composers and tunesmiths on compositional tools and strategies. Seeing that the ideas also have analytical utility implies that others before have found these strategies and shaping forces useful, however consciously conceived or not. So, simplifying and ignoring millenia of varied history and understandings of modal terms and how to work with them, I simply declare my working definitions for the present writing, which in the case of the diatonic modes anyway seems to match a practical consensus of the last century or so, and get on with the work.
Chapter 1

Modal Integrity and Monody

Alan Hovhaness and the Sound Musicality of Modal Integrity

In Alan Hovhaness' "Armenian Period", roughly the 1940's, many of his works can be understood through concepts of modal integrity. In fact, Lou Harrison (2010) used that very phrase in a 1945 review of Lousadzak, a 1944 piece by Hovhaness for solo piano and strings:

There is almost nothing occurring most of the time but unison melodies and very lengthy drone basses. It is also very modern indeed in its elegant simplicity and adamant modal integrity, being, in effect, as tight and strong in its way as a twelve-tone work of the Austrian type. There is no harmony either, and the brilliance and excitement of the parts of the piano concerto were due entirely to vigor of idea. It really takes a sound musicality to invent a succession of stimulating ideas within the bounds of an unaltered mode and without shifting the home-tone.²

Harrison's is a great review of some of the potential and challenges of modal integrity. Notice especially the claim that melody almost alone, with "no harmony," communicates to Harrison all his strong positive impressions of the music. One caveat is that perhaps Harrison and I differ in defining mode, or perhaps my modal integrity is more adamant than his, for I hear clear changes of mode in the piece. I hear especially the third over center varying between

² It is not ideal to use wikipedia here for such a crucially and deliciously detailed quote, but even with Wesleyan accesses, I was unable to view directly the review cited in the web page's footnote: Harrison, Lou. 1945. "Alan Hovhaness Offers Original Compositions." New York Herald Tribune, June 18, 1945: 11.
major and minor. However, if these changes are occurring, and such a listener as Harrison still gets the sense of a "tight and strong" work with constant center ("home-tone") and "exciting," "sound musicality," then these impressions speak all the more strongly for the ability of modal melody shrewdly-handled to create quickly a sense of center. Such a case of vigorous modes keeping integrity, but only for a structural portion of a piece, I dub as the compositional strategy of *regional modal integrity*. Composing with such a strategy, modal thinking is constant and integral to the structure and development of the piece, but the particular modal vocabulary may vary from section to section. Melody alone may be sufficient. Melody alone might be a convenient place to begin explorations. Indeed, after some consideration of pc set terms and usage and other tools of the investigation, explorations of modal integrity will begin with Alan Hovhaness' work for solo viola called *Chahagir*, Op. 56a.

**Analyzing Modal and Centric Music—PC Sets Useful**

In the world of modal integrity, melody is the prime mover. However, modal melodic motion is still *centered*, that is, oriented about a specific home pitch which is the most satisfying place to finish—the 'home' which is best recognized by travelling away and returning, development and recapitulation, even if this path is followed in the smallest gem of a traditional four phrase folk hymn tune. When composition of my thesis tunebook was well along, my adviser Neely Bruce marvelled at the paucity of V-I cadences he observed. Exactly! Other forces can establish center. In exploring how the centricity of modal integrity works, it is useful to add some analytical terms and methods which lack some of the usual
bias towards tonality and harmony dominance. I find the basic tools of post-tonal theory extremely useful in exploring issues surrounding alternative centricity. My training was through Joseph N. Straus' text *Introduction to Post-Tonal Theory* (1990, *passim*), which I still find wonderfully lucid, informative, and suggestive.

I am not alone in finding common post-tonal concepts useful in discussing possibly modal or centric environments. For example, consider Matthew Santa's (1998) award-winning theory article "Chordal Tone Centers in Stravinsky's Neoclassical Music." Santa applies octave-equivalence set theory to clarify the complexities which arise in Stavinsky's lean and clean stacks. Santa (1998, 103) creates this approach of necessity, observing that "no generalized theory of centricity has yet been written." The very title of his Ph.D. dissertation of the following year, referenced at the head of Santa's 1998 article notes, demonstrates the deepening of the approach: "Studies in Post-Tonal Diatonicism: A Mod7 Perspective.". In a couple of stunning endnotes (1998, 121-2, notes 6 and 7), Santa describes his personal listening and perception process, compared with the same of peers, through which he creates terms (*centric charge*, *relative strength*) and quantifies them, calling all this a "rationale" and the way he "confirmed this system." He acknowledges further that "the current study is grounded in historical conditioning (the common ground shared by all musicians trained in tonal music; i.e. 'our collective tonal experience') [his parenthetical appositives and quotes]." Santa has borrowed intuitions and gut reactions of tonality, and claims them as a rationale for a "confirmed," quantified, scientific alternative system. Parallel with his award-winning example, I also invent terms, apply post-tonal theory outside its usual repertoire, and appeal to my own gut reactions and those of others I know, and I claim it all as an illuminating or highly suggestive rationale.
Differences between my approach and Santa's include the following. For reductive octave equivalence, I will use the mod12 system more traditional in post-tonal theory. Although I am working in restricted modal vocabularies, exact pitches may change within a piece, and recognition of semi-tone differences is crucial in all my works and analyses. These crucial changes and distinctions can be lost in his mod7 system. Then, my training and experiences are not exactly representative of "our collective tonal experience." My musical background is cumulatively skewed towards melody and modes more than might be expected in late 20th century USA. My father is a Lutheran pastor, and I grew up regularly singing old Scandinavian-American modal chant liturgies, as well as substantial repertoires of modal folk tunes old and new for hymn-singing, and even folk and pop-based experimental liturgies in 1970s West Coast, hippie Oregon. Varied worship experiences continue to provide modal music opportunities. Hymn-singing and, later, violin training in primarily Western "classical" traditions kept my mind focused on melody busy-ness instead of other musical dimensions.

At Oberlin in the late 1980s, I participated more singing modal pre-tonal repertoire with the Collegium Musicum than I did playing violin in ensembles. Since 1995, twenty years, I have been playing Chinese bowed string instruments, reading the Chinese jianpu notation, and participating off and on in Chinese music ensembles. Also in the mid-1990s, while pursuing my violin performance degree from Temple University in Philadelphia, PA, I discovered for myself the living singers and practices of the USA Sacred Harp shape note singing traditions, and I have been deeply immersed in travel, singing, study, and composing of such music ever since. Other personal projects and multi-cultural audio serendipities too numerous to specify amplify my trends of experience outside of the mainstream of Western tonality. Thus, despite a life and trainings within a prevailing cultural context of tonality, my own attentions and
reactions are unusually likely to focus on melody and modes. Finally, I have been handling materials of modal integrity consciously in improvisation and composition for decades, further observing and feeling along the way. Thus I will not bury my subjectivities and assertions in endnotes (I've revealed here!), but will instead be comfortable stating overtly personal impressions.

Compelling Regional Modal Integrity in Hovhaness' *Chahagir*

I found myself puzzled some years ago practicing for a run of performances of Alan Hovhaness' (1945) marvelously effective piece for solo viola *Chahagir*, Op. 56a. The puzzlement was this: why, in a piece which clearly runs through all the 12 chromatic pitches—and does so in a rather florid rhapsodic manner—and just how, could even the most fleeting pitch mistake, even in very weak stress positions, cause visceral physical "gut" revulsion? In such a clearly unfamiliar melodic environment, how could such a vigorous grasp of "mistakes" be so immediately internalized? The power of Hovhaness' pitch vocabulary was not obvious on the surface, and I became curious enough to examine with unusual detail. What I found helped me create the concept of regional modal integrity. The modes found are modes, in the sense of limited and strictly albeit regionally consistent pitch vocabulary, even though many of them vary in their number of pitches and are, to me, unfamiliar. It has been suggested that Hovhaness often used modes derived from or identical

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3 My inclinations strongly favor spatial, sculptural, 3D metaphors in music. Maybe a touch of tactile, visual, aural synesthesia explains this trend. Also, *regional* contrasts nicely with its alternative *global* modal integrity, adamant and thoroughgoing throughout a piece. The temporal terms contrasting *temporary* with what?—*eternal* modal integrity?—could seem awkward or overblown.
with traditional named modes of the Armenian church tradition to which Hovhaness was exposed in his work (Shirodkar, 2014). However, even while lacking knowledge of Armenian modes, the pc set theory borrowed from the post-tonal context remains useful in describing the modes. It is also worth noting that the modal material used in Chahagir is all the more impressive for having had its visceral effect on me and my audiences despite our position as in a sense outsiders to whom the Armenian tradition is foreign (Lousadzak's reception described above is also impressive in this way). A pitch vocabulary analysis of Chahagir, identifying successive regional pc sets, exemplifies the compelling power of even brief regional modal integrity. This analysis thus helps to explain why a contemporary composer might want the strategy of modal integrity anyway. Also, the analytical efficacy of modal integrity ideas expressed in pitch class set language, even when the actual modal material may be culturally unfamiliar, is a benefit and yet another sort of argument in favor of use of the ideas complexed around modal integrity.

**Terms for Exploring Chahagir's Modal Landscape**

The modal world of *Chahagir* is idiosyncratic and powered by modal integrity and apparent violations thereof. Effective and convenient vocabulary for analyzing *Chahagir*, indeed for analyzing pieces of modal integrity in general, needs to be similarly idiosyncratic and reflective of modal forces and events. First, within a region of modal integrity, it might happen that individual *variances* of pitch occur—these are occurrences of pc's which are not a part of the prevailing pc set. These variances are perhaps analogous to the non-harmonic tones of traditional analysis: they run counter to the prevailing logic, so they need to be
explained. Variances are distinguished from larger variations in the prevailing pc set, which correspond exactly with the mid-level structural regions of regional modal integrity. Often, variance in Chahagir may be identified as pre-flex, which can describe the variant pitch itself, and/or the compositional strategy of pre-flex[ing]. More rarely, a straggling pitch lingering from a previous region may be a sort of post-flex, analogous to pre-flex and an equally-explainable pitch outside the current region's prevailing modal pitch vocabulary.

Another handle useful for grasping the violation and conservation of pitch vocabulary in Chahagir is recognition of three specific octaves of absolute pitch, or absolute octaves, namely root, stem, and top octaves. Different patterns of pitch vocabulary may be observed depending on which absolute octave is observed. However, if the absolute pitch-octave is observed, the patterns appear more systematic and more steadily gradual in their evolution and more convincing. I had no model at first for finding analytical importance in distinguishing absolute octaves, but I have since been reassured by observing substantial discussion of different absolute octaves in the thoughtful writing of the theorist Dane Rudhyar (1982, 63-73).

With great grounding effect, the deepest string of the viola corresponds with the modal center of the piece and with the bottom c pitch of traditional small octave c - b (C3-B3), and this lowest absolute octave will be called the root octave. Next up is the absolute octave from middle c to the b above, at the center of treble clef; alternately, the traditional c' - b' octave (C4-B4). This middle absolute octave will be called the stem octave. Above stem octave, only c'' - g'' are utilized, and this highest c'' - g'' or c'' - b'' partial octave (C5-B5) will be called top octave. Rather like the pre-flex pitches, local peak pitches occurring in the melodic line in stem and top octaves show systematic freedom from local pitch vocabulary.
strictness, but unreliable potency in defining and anticipating pitch vocabulary in subsequent structural sections. Variant peak pitches may or may not endure as part of the new area of pitch vocabulary. Root octave pitch vocabularies are more stable.

Finally, perhaps a formal use of stack as a jargon term is uncommon when referring to a chord or sonority or simultaneity of pitches. However, I find stack sometimes more useful than alternatives in order to avoid undue bias in favor of a traditional harmonic understanding of musical examples carried in the analytical terms themselves. A stack is a pc set, used vertically, sounding at once. Simply saying "stack" seems more compact and natural than an extended phrase about pc sets. In addition, perhaps pc set carries its own bias against center, due to its history of use in more aggressively serial, atonal, and [non-centric] post-tonal contexts. Modal integrity implies a prevailing logic and organization of musical forces such that pitches are restricted to modes with a center, and melodies find their own way without overwhelming concern for their place in harmony progressions. Chord too-easily implies or recalls chordal analysis with Roman numerals and the general priority of harmonies amongst the musical forces of composition. Also sonority seems too easily to carry associations of tonality and functional harmony, or maybe some abstruse and slippery character as well--too unfamiliar, too vague, too academic. Though, I admit to softening in my feelings against the term sonority, and I may make some use of it. Though more neutral with respect to tonality, "simultaneity" seems fatally awkward and artificial despite its venerable tradition of use in modern analysis, and may also carry too much of an atonal or serial bias. Thus, observed stacks [of pitches] will most often be discussed. These stacks might be functional harmonies, or chords, or sonorities, or simultaneities, but they might only be moments of upper line melody with included bits of drone pitches reminding the ear of
mode and its center. Perhaps even tonality can be given a referential moment, an acknowledgment, by some suggestive stacks within a work generally governed by a different balance of forces. Such stacks are all possible.

**Chahagir: Modal Integrity Analysis in Brief**

Perhaps an introductory summary of the analysis results will be helpful before diving into the details. The opening portion of the score is shown in Figure 1.1, with some analytical section markings added. Basically, one, two, three very brief opening "Portal" sections present and define the initial C-centered, non-tonal and non-diatonic modal integrity melody regions. Rare but regular pitch pre-flexes and variances in melodic peak pitches in the stem and top octaves together drive the evolution of pc sets from structural section to section, so clearly and systematically as to help much in identifying those very sections from which the pre-flexes and peak pitches vary. A single extended crescendo in both dynamic level and strings utilized spans the work. About three-fifths of the way into the piece, the sense of center arguably shifts briefly from C to F. However, the very ambiguity and methods of this possible shift in center are consistent with and reinforcing of the general patterns of modal integrity within sections, and with overall pc set variation through pre-flex and upper octave peak pitch variance. A longer Finale-Coda region sounds the evolved result of diatonic Dorian mode in alternation with impressionistic washes of minor-triad stacks, until—surprise—a seemingly tonal-cadence-like stack appears at the very end, spanning the absolute octaves for a dramatic statement of C-major triad, creating a Picardy-third-like effect.
Figure 1.1 *Chahagir*, beginning. From Hovhaness, 1945.

**Chahagir Analysis: Mid-Level**

Mid-level view is most clear in a schematic table. Please see Table 1. Perusal of the table of mid-level analysis, and the fully detailed analysis which follows, and hearing *Chahagir*, indicate that the simple presence of modal integrity in pitch vocabulary, even in brief areas with regional variations, even with little or none of supporting voices or
<table>
<thead>
<tr>
<th>Section</th>
<th>mm.</th>
<th>prevailing pitch vocabulary</th>
<th>Forte set no.</th>
<th>flex and variance &amp;c.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portal</td>
<td>1-2</td>
<td>[014_78E]</td>
<td>6-Z44</td>
<td>none</td>
</tr>
<tr>
<td>A</td>
<td>3-11</td>
<td>&quot;Portal mode&quot;</td>
<td>7-20</td>
<td>root F-natural; (peak D-nat., E-flat)</td>
</tr>
<tr>
<td>Portal</td>
<td>12-13</td>
<td>[014_78E]</td>
<td>6-Z44</td>
<td>none</td>
</tr>
<tr>
<td>B</td>
<td>14-26</td>
<td>[014578E]</td>
<td>7-22</td>
<td>root D-sharp!; (peak D-nat. again, root E-natural still)</td>
</tr>
<tr>
<td>C</td>
<td>27-35</td>
<td>[034578T]</td>
<td>7-27</td>
<td>root B-flat; (peak A-natural)</td>
</tr>
<tr>
<td>C'</td>
<td>36-46</td>
<td>[034578E]</td>
<td>7-21</td>
<td>root B-natural; stem D-nat., E-flat</td>
</tr>
<tr>
<td>Portal</td>
<td>47-48</td>
<td>[014_78E]</td>
<td>6-Z44</td>
<td>none</td>
</tr>
<tr>
<td>D</td>
<td>49-60</td>
<td>[023678T]</td>
<td>7-30</td>
<td>by flat, not flex: F-sharp, B-flat</td>
</tr>
<tr>
<td>E</td>
<td>61-73</td>
<td>[023578E]</td>
<td>7-32</td>
<td>peak E-natural</td>
</tr>
<tr>
<td>E'</td>
<td>74-80</td>
<td>[014578E]</td>
<td>7-22</td>
<td>[....moves, from C to F!]</td>
</tr>
<tr>
<td>E&quot;</td>
<td>81-86</td>
<td>[023578E]</td>
<td>7-32</td>
<td>many patterns break together</td>
</tr>
<tr>
<td>F</td>
<td>87-106=FIN.</td>
<td>[023579T]</td>
<td>7-35</td>
<td>(+ impressionistic stacks)</td>
</tr>
</tbody>
</table>

Table 1. Chahagir Analysis: Schematic Table of Mid-Level View. Pitch class sets are ordered, 0 = center
functioning harmony, can provide thorough compositional means of structuring effective music.

**Chahagir Analysis: Full Detail View of Regional Modal Integrity**

First, mode is established. That is, mode as opposed to tonality, and also which mode and with what center. The piece begins with the indication "Slow, mysterious" and a *pianissimo* opening. The first two measures recur, each time opening or separating discernible sections, and I call them *Portals* for this gateway function. Measures 1-2 consist of two [104] pc sets in parallel fifths, namely C, D-flat, E and G, A-flat, B in the 'root octave', or, if C=0=center, [10478E]. This [10478E] hexachord is the basic modal skeleton of the opening. A single [104] is consistent with tonality, if it is [78E] as in harmonic minor scales. But two examples of [104], built upward from [7] and [0], defy both tonality and any diatonic pitch class set, and indeed lead the listener into a mysterious modal realm instead. Stubborn parallel fifth voice-leading is another argument against tonality. In case there were any doubt, by m. 4 one can observe a completed set of seven differently-lettered pitches to span an octave, and the seventh pitch is F-sharp, [6], the tritone over center. In this completed pc set, there is no diatonic set nor any other common tonal scale form in sight. Instead we observe [104678E], including two [104]'s AND two [102]'s: {678} and {E01}. This set [104678E] will return, so for convenient identification it earns a name: *Portal mode*. Finer melodic analysis details and the relevant arguments about fifths and the overtone series remain beyond the scope of this analysis, yet should be convincing enough to accept C as the pitch center so far.
Next, the first structural section A spans mm. 3-11, in between iterations of the opening Portal in mm. 1-2 and mm. 12-13, and further distinguished by piano and mezzo forte dynamics and ambit reaching stem octave. Measures 6 and 7 have a surprise: E-flat [3] and D-natural [2] (which reappears in m.9)--variances from the prevailing pc set [014678E], the Portal mode. Observe, though, another distinction of these pitches: they are in the new stem octave--they are the melodic peak of the piece so far. Peak position seems to make variance more acceptable, as will be observed repeatedly. More fundamentally, Portal mode is conserved in the root octave, where E-natural returns in m. 9 (along with an unnecessary and redundant printed natural accidental, as if to emphasize that, yes, this is importantly different from the E-flat in stem octave in m. 6, and Hovhaness knows that and means it!). However, also in m. 9, another surprise: F-natural, also with the interestingly-redundant natural accidental for emphasis. This m. 9 F-natural in root octave is the pre-flex anticipating the next mode variation, as section B will show. Thus, the nine-measure section A presents the patterns for the piece as a whole of dynamic growth and limited, consistent pitch vocabulary, with exceptions of pre-flex and upper octave peak pitches.

The opening Portal returns, mm. 12-13. Then section B spans mm. 14-26. Maybe Portal is really four measures long, and a note, not two measures only, and this span explains the F-sharp of measure 15. Maybe, instead, it's better to stick with the idea of pre-flex and "explain away" the F-sharp modally as an allowed non-modal neighbor emphasizing the important perfect fifth above center, in the same way that traditional harmonic analysis allows explanation of specific non-harmonic tones. This transient non-modal neighbor tone explanation of the m. 15 root octave F-sharp is consistent with the next eight F's, all natural, which occur in mm. 16-25, and with the assertion that in section B this pc set prevails on
C=0=center: [014578E]. Arguably, this pc set [014578E] is the real, melodic core mode of the piece, and the Portal mode is a sort of artifact of an analytical perspective weak in the melody and gesture dimension which could otherwise clarify F-sharp as a non-modal elaboration of G. That argument goes beyond this analysis, but the idea that [014578E] is a core mode in this piece with 0=center feels right to me, I assert it, and it helps clarify a proposed change of modal center in the analysis of sections E* and E** further along, which goes well with asserting [014578E] as the core mode. Regardless, the mode of integrity undergoes variation here in region B.

Oddly, aside from a repeat of section A's peak variances in m. 21, there are no D pitches in section B, until the pre-flex surprise of root octave D-sharps in mm. 24-5. Root octave shows its strength, as the next 15 occurrences of any D in root or stem octave throughout section C and C* are all D-sharp, until the pre-flex D-naturals arrive in mm. 44-5, leading into the third and last opening Portal of mm. 47-8 (with its D-flats) and anticipating the section D prevailing D-naturals.

Any occasion of stacks in Chahagir is taken seriously in this analysis and must be explained. Firstly, a stack is a dramatic orchestrational event, so to speak, in the use of the primarily melodic/monodic bowed viola, something not to be ignored. Secondly, and perhaps more importantly, a stack also automatically implies maybe harmony, maybe even functional harmony, which may threaten the principal role of modal integrity pitch vocabulary as the propelling logic of the piece, and thus must be explained. Structural sections and disjunctures, and also new absolute octave ranges, are commonly initiated in Chahagir by a dramatic stack or series of stacks. Perhaps stacks are used exactly for this opening, widening,orchestrational effect more than for harmonic efficacy.
Interestingly, the entire piece through m. 26 can be played comfortably and conveniently on only the lowest two strings. A series of stacks plus their forced introduction of the third string up, the D-string, and the new dynamic level *forte* all clearly initiate section C, mm. 27-35, and all that independently of pitch vocabulary, *a fortiori* independently of harmonic function, but rather through changes in the orchestrational dimension! The lower pitches of the initial seven stacks which begin section C are exclusively only the lower open strings, C and G pitches in root octave. This perfect fifth iteration is effectively a drone emphasizing the continued modal character with center C, very similar to the dyad parallel fifths in the opening Portal. Meanwhile, a melody line sings in stem octave on the top D-string. The sole stack-pitch exception to C-G drone in the lower pitches is the root octave A-flat of m. 31, which only reinforces the steady pitch vocabulary of root octave as versus the single variant peak pitch A-natural which arrives in stem octave in m. 33. A-natural is an important foreshadowing of the possible F=center area of sections E*-E** below. Measure 31 also includes section C’s only B-pitch: a B-flat in root octave. This pre-flex waits long for confirmation in section D, mm. 49-60, and meanwhile represents seventh mode-degree as B-flat=[T] for the section. If the m.31 root F-sharp is discarded as a non-modal neighbor emphasizing G (as in section B m. 15), letting the preponderance of stem F-naturals prevail, then section C is very thoroughly built of pitch class set [034578T].

A series of stacks sounding the mode center C and/or fifth-degree G are used to open section C*, mm. 36-46, and such C-droning stacks recur comfortably within modal context throughout the section. Recollections of the opening Portal. Another peak A-natural in m. 40 is offset by the steady pitch vocabulary of root octave, where A’s are still A-flat in mm. 44 and 45. Meanwhile, the third Portal of mm. 47-48 seems to exert a diffuse influence,
reversing in nearby measures most recent pitch variations, bringing back B-naturals in mm. 44-5 as the only B's of section C*, pre-flex D-natural as already mentioned in m. 44, and with it E-flat in the stem octave. Favoring root octave vocabulary and earlier pitches, yet accepting the (only-B) B-naturals, the prevailing pitch vocabulary of section C* is set [034578E].

Section D gets busy, mm. 49-60, after the third and final opening Portal, mm. 47-8. When in section A variances D-natural and E-flat appeared in stem octave as peak pitches, they were undone by the second Portal and section B, thus showing the bold yet unreliable freedom of peak pitch variance. To emphasize this point again, from the other side as it were, it is observed that the stem octave D-natural and E-flat of section C*, m. 44, are well below the range of the section C* peak pitch A in stem octave, and thus may be more reliable pre-flexes--and sure enough, soon they recur consistently in section D.

It is worth noting that almost by definition, pre-flex pitches usually do not happen also to be peak pitches of the local melody. That is, effective pre-flex pitches tend to appear in the middle of a larger melodic gesture, where the listening attention is less likely to discern them. This shrewd writing strategy partly explains my initial puzzlement, partly explains why the systematic variation of pitches region by region is not so consciously obvious, yet may be grasped in the gut and ear. But back to section D, mm 49-60.

Observing other mode-degrees in section D, in m. 49 near the Portal and matching the Portal mode is thus seen an allowed non-modal B-natural, "non-modal" because despite its presence within the modal integrity pc set of the previous section C*, the B-flat is about to return and prevail in section D in eight recurrences mm. 52-59. The returning B-flats were not prepared by 'pre-flex', and the large number of iterations maybe then is necessary to convince the listener by fiat that B-flat is indeed the prevailing seventh mode-degree. The m. 50 root
octave F-sharp appears to be the usual, allowable, non-modal neighbor tone of the important perfect fifth over the center. But then—surprise—root octave F-sharp appears twice more in section D, and to make up for its lack of preparatory pre-flex, it must establish itself with strength, which is shown by the fermata over the F-sharp of m. 52, and by the strong and lengthy rhythmic downbeat position of the F-sharps in both m. 52 and 59. Looking back at all previous pre-flex variances, it is seen that they are blended into weak and/or transiently brief rhythmic position in their measures. F-sharp really is part of the prevailing C=0=center mode of section D, namely: [023678T]. Unusually, B-flat and F-sharp prevailed in section D by fiat, not by earlier pre-flex. An aside: just past half-way into the piece, m. 56, the dynamic level forte is marked, unusually in mid-section, and no lesser dynamic is ever stated for the remainder of the piece.

Section E, mm. 61-73, is very dramatically and clearly initiated with the first four-note stack, with the forced and first sounding of the highest A-string on the viola, and with a leap up of the main melodic line for the first time into the top octave. The volume and vigor initiating section E seem to indicate that whatever the clarity of mode locally, it's important! The stack is brief and singular in occurrence, and seems only to drone the low C-G fifth and add a stem E-flat to the peak melodic C. Coincidentally, the stack spells a C-minor triad, but this tonal-harmonic label seems less the role of the stack than its grounding of melodic expansion into top octave and its singular emphasis of the current mode and its unchanged center.

Rather, commanding the listener's attention in opening section E, the melodic line rises for the first time on the highest A string, and rises immediately into three consecutive peak pitches in the 'top octave'. When B and F pitches appear in section E, in mm. 64 and 67
respectively, they are B-natural and F-natural, undoing the fiats of the previous section. Moral: the pitch unprepared by pre-flex does not last for long. Or perhaps these stem and top octaves are showing their variability compared with the more stable root octave, as the next occurrence of any B in root octave is the B-flat of m. 85, from which point B-flat in fact continues through the end of the piece. Regardless, pitch vocabulary throughout section E is very consistently only pitch class set \([023578E]\), like harmonic minor on C=0=center. The local clarity of this mode is matched by the clarity of E-natural \([4]\) in top octave as the only pre-flex pitch of section E, just two notes before section E*, mm. 74-80. Please see figure 1.2 to view the ending of Chahagir, analytical sections E* through Coda and end.

Section E* begins as did E with a dramatic four-note stack and melody line riding top octave immediately to a new peak—this time, G in top octave, the peak pitch of the entire piece. Wait! This stack, from bottom up, was spelled C, G, G, E-natural on top. This moment looks like an overwhelming C-major statement. Why does it not feel convincing as a Picardy third, stealing that effect from the ending? Well, for one thing, it's not an ending, and the emphatic melody does continue and carry attention further upward. Also, the form itself of the previous section echoes in the listener—beginning with dramatic stack, yet carrying on with local strictness of pitch vocabulary—which guides the ear to listen for the modal meaning of pitches rather than jumping to harmonic conclusions. As the melody proceeds, pre-flex E-natural is maintained, but suddenly D-flat returns and is iterated consistently to sound a familiar pitch vocabulary in mm. 74-77, namely, \([014578E]\)—the core mode—on C=0=center. From that perspective, the initiating stack of section E* is like previous stacks in the piece: another implication of drone, another iteration of the current mode on the unchanging center of C. However, there is still a bit of ambiguity, as the A-flat and B-natural
of core mode have not sounded yet in section $E^*$, but are only remembered from section $E$.

When A and B pitches do sound, they are already in a long pre-flex: in mm. 78-80, pre-flex pitches B-flat, A-natural, and G-flat arrive. If C=0, the pitch class set arising from this triple pre-flex is $[014569T]$. However, from the perspective of $F=0$, that set is more familiar as $[014578E]$—the core mode again, on $F=0$=center!

In this context of C-F mode-center ambiguity, maybe "mode-ulation", the four string stack which opens section $E^{**}$ in m. 81 is perhaps especially decisive in guiding the ear--
especially meaningful. Also noteworthy, this stack departs from the C-G modal drone in lower pitches, actually including a fingered A-flat in root octave, sounding a complete F-minor triad sonority, hard to describe in any other way. Hearing it that way clears up the C-F ambiguity. Arguably, this moment is a genuine intrusion of functional harmony, functioning sonority at least, changing the prevailing C center to F, as reinforced by the similar transposition of the core mode!

However, a moment of functioning sonority is not the only local rupture in the patterns of the piece. Center-ambiguity remains, partly due to an unusual change away from the pitches prepared in region E* by pre-flex, in fact, due to change of a larger group of pitches than ever before in the piece, including the very A-flat, the introduction of which made the F-minor triad! The first two and a half measures of section E** clearly and consistently state only the [023578E] on C=0 of C harmonic minor. Five mode-degrees have shifted from the previous C=0 [014569T] which spells the core mode on F=0=center!

It is as if centrifugal forces overwhelm the patterns which have held the piece together so far. Or as if by climbing to its peak pitches, the melody met headwinds too strong, and lost its grounding, and flew out of control. Functioning harmony intrudes, pitch vocabulary changes too quickly, pre-flex seems to lose its influence.

However, the root octave holds steady. The first fortissimo of the piece arrives midway through E** with the return of root octave melody in m. 83. No lesser dynamic is stated in the remainder of the piece. In the final two measures of E**, mm. 85-6, root octave melody introduces pre-flex A-naturals and B-flats. To emphasize the final E** pre-flexes, the dynamic is fortissimo and the B-flat pick-up is agogically enhanced, leading to the crucial A-natural which is also highlighted by positioning on the downbeat of m. 86 and by a fermata.
Thus, root octave shows the depth and strength to restore modal integrity form, slowing the rate of change of pitch vocabulary—in fact, to lock in on Dorian mode and hold it through the end of the piece!

Except, suddenly, a series of nine stacks intervenes in mm. 87-91. These stacks are to be taken seriously, even more so than previous stacks, because there are so many of them, and so loud, and with accidentals and chord roots changing quickly, comprising more than just a drone on center. It sounds so like a patch of functional harmony! However, if the eighth-note chords of the 3/8 measures 90 and 98 are conflated and viewed as elaborations of G-minor by G-minor-seventh chords, with no actual moments of B-flat major, then despite (because of!) all the variety of pitch vocabulary in the stacks, they show the odd property of being every one of them a minor chord. Impressionists have shown that mass-parallel chords of free-roaming root movement with constant sonority are not functional harmony. They are, instead, an impressionistic wash of rootless color. In exactly the same way that such an impressionistic wash gives a holiday from functional harmony analysis, so, too, it is a neutral interlude in a modal integrity context, with no real harmonic meaning for structure. Their "function" is more analogous to cleansing of the palate, preparing the listener for the contrasting tasty surprise Picardy third that Hovhaness has in store for the ending.

Still, stacks are stacks, and especially after the return to root octave melody and slower pitch change, these stacks are dramatic and emphatic. Thus, with the usual orchestrational efficacy in structure observed so far, these stacks will mark a new section, section F, the *finale or coda*, from m. 87 to the end. The coda is pretty simple: Dorian mode on C=0, [023579T] for all melody, with interludes of impressionistic wash on a constant
minor sonority. Everything sounds minor. Excepting the impressionistic stacks, Section F is the longest area of steady pitch vocabulary in the piece…

…until the very final chord, which is truly an abrupt and undiluted change from the prevailing context. Thus, the Picardy third sense of the final chord—sudden, brief—then the piece is already over, and that sense of change is what lingers. The rule is found in the exception, as always with a Picardy third, and it is exactly its violation of modal integrity, so successfully established, which makes for its effective drama. Thus is made once again the point that the forces of modal integrity, even in brief areas with regional variations, even with little or none of supporting harmony, can provide thorough compositional means of structuring effective music.

There's nothing else about Hovhaness' Chahagir like this discussion in the existing literature.\(^4\) One may note from the overall Chahagir analysis that ideas of modal integrity expressed in pc sets can be explanatory and useful in analysis, even when the pc set nomenclature is taken out of its more common serial and post-tonal milieu, and even without finer detail in melodic analysis. Hovhaness has quite methodically used rigorous regional integrity of modal pitch vocabulary to sculpt a clear and effective larger structure in his solo viola piece Chahagir. The example proves the possibilities for melody, for even a solo musician.

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\(^4\) Arnold Rosner (1972, 362), for example, only includes Chahagir's title in a list of works. His 300+ page analytical survey of Hovhaness includes no discussion of the piece.
Chapter 2

Modal Integrity and Polyphony Within a Diatonic Sensibility

At first by instinct and later after profoundly comprehending the essence of the arts of folksong and liturgical chant, Kastalsky strove in his arrangements of liturgical melodies to form a polyphonic texture out of the melodic (horizontal) forward movement determined by breathing…. Melodic functions, not harmonic ones, produce all the part-writing…. In its time—and until very recently—this was all so new and out of the ordinary that there was a tendency among musicians who put their faith in the unassailable patterns of German chorale part-writing to view Kastalsky as a crank and a composer of low cultural level. Truth proved to be on his side, regardless of everything, thanks to one specific fact: his choral works always sounded better than those of his detractors. The part-writing is more intelligent vocally.


Traditional Diatonic Repertoires of Modal Polyphony Still Melody-Dominated

In a piece such as Chahagir, which is nearly strictly melodic, of course melody is the dominant dimension. How, then, might the larger balance of forces be shifted when more voices are added and sounding stacks become inevitable, harmonies more compelling? For purposes of practical investigation, I will consider a simplified realm of diatonic modes, drawing examples and commentary from two disparate traditions from Russia and North America. Exactly the foreign-ness of the traditions to each other is an encouragement to me that they have arrived at similar results exactly due to handling of similar materials—the diatonic set—rather than as some accident of a particular culture. I pursue the internal logics
and forces of the pitch material itself, and the material's interaction and balance with the other dimensions of music.

Even in music of many voices, melody can remain the dominant force. One surprising clue to this effect about comes from Ernst Toch in his seminal discussion of the shaping forces in music. Interestingly, although the first section of Toch's book is devoted to harmony, melody receives its own manifesto within the harmony section. Cautioning musicians against "rigid, preconceived harmony," Toch (1977, 5) recommends instead

…the wider and superior view of the inherent urge of each voice toward linear self-preservation.

It is not enough to know that in the course of musical progression each tone asserts its membership in the harmony in which it is embedded as well as in the melodic line of which it is a part. The truth is that the melodic impulse is primary, and always preponderates over the harmonic; that the melodic, or linear, impulse is the force out of which germinates not only harmony but also counterpoint and form.

Can the primacy of melody be any less in a modal environment, as opposed to the Western art music tonality which supplies most of Toch's examples? Perhaps clarification may be gained by sampling general observations from a couple modal polyphonic traditions which exist with repertoires.

In the area of today's United States of America, a cluster of a cappella singing traditions has been ongoing continuously since colonial times, which may loosely be referred to all together as the shape note singing or Sacred Harp tradition. The shapes are added to printed noteheads as device for showing the diatonic seven pitches of an octave. Without borrowed symbols from European staff notation, chromatic alterations cannot be notated in shapes. Actual aural practice is known to differ from the notation at times, and some trends in these differences will be addressed later in the thesis. For the present, it is enough to note that centuries of printing in shapes is a strong prima facie argument that Sacred Harp singing is
indeed modal polyphony. Colonial tunesmiths—composers—in the tradition often printed more chromatic accidentals. However, subsequent centuries of countering modal sensibility have often rendered the singing of those tunes more adamant in their adherence to the pitches of a single mode. This increasing modal sensibility and concomitant weakening of tonality are clear in Warren Steel's (2010, 47) observations about practices of the important antebellum shape note tunebook compiler Ananias Davison:

New England composers certainly had used accidentals in their music…. Davison not only avoided them in his own compositions and those of his associates but also purged them from the works of earlier American and European composers. His omission of these symbols implies a musical system that was purely diatonic and modal, without raised leading tones in the minor modes or accidentals to mark modulations to dominant or subdominant harmonies.

Steel goes on to note that although purging of accidentals has not been universal in shape note publishing, other compilers have followed Davisson's approach. Eliminating accidentals is one way to ensure strict adherence to diatonic modes. In the shape note modal tradition, participants often report or recommend writing complete lines of one part before going to the next part. Warren Steel (2010, 49) comments on this trend of consecutive part writing, also quoting a passage about independent part writing from John G McCurry, compiler of an 1855 shape note tunebook. The advice is repeated by John Garst (The Sacred Harp 1991, 23) in the "Rudiments of Music" section preceding music in today's most popular shape note tunebook, emphasizing that "each part should be an interesting melody on its own." Taken together, these observations indicate trends of melody dominance continuing within a strictly-diatonic modal vocabulary in the polyphony of traditional shape note music repertoire.

Meanwhile, so far away as Russia, musical ethnographers were collecting and transcribing a great variety of folk musics, including much folk vocal polyphony. The Russian composer Alexander Kastalsky (1856-1926) is one of the inheritors of Russian chant
and folk polyphony traditions, and he went on to use what he had observed in those traditions in a composing career he began in mid-life. In her biography of Kastalsky, Svetlana Zvereva surveys relevant musical trends influencing Kastalsky. Referring to firsts in Russia, Zvereva (2003, 57) notes that "the first scholarly publications of folksongs…appeared in the 1870s and 1880s" and lists a half dozen influential titles, observing that they "reproduced transcriptions of folk polyphony for the first time and reached conclusions about their podgoloski-polyphonic character." Zvereva's (2003, 281) glossary entry on podgoloski polyphony calls it "a kind of polyphony characteristic of Russian, Ukrainian, and Belorussian folk music…. The musical fabric is formed from the fundamental voice and podgoloski (plural form) accompanying it, which are themselves variants of the basic melody. The supremacy of the linear principle determines the relatively free use of dissonances.…"

Musicologist Alfred Julius Swan was one of the few who continued studies and publications on Russian folk musics during the challenges of the 20th century. Swan (1943) elaborates on trends in the music of the same transcription collections mentioned by Zvereva. Swan (1943, 504) observes that "Like the old chant, which it so greatly influenced, Russian folk-song is, in the bulk, diatonic. Nor do we find in it…any occasion for chromatic harmonies in the western sense." Swan (1943) goes on to catalog diatonic modes found in the Russian folk polyphony repertoire, depicting Ionian, Mixolydian, Aeolian, Phrygian, and Dorian in accord with the consensus understanding of those modes as I use in the current writing. Again, we find diatonic modal vocabulary supporting polyphony, with melodic or linear impulses supreme.

Such melody primacy suggests for a first approximation a beginning of analysis as in Chahagir, focusing on the available pitch class vocabulary itself. Conveniently, the disparate
sample traditions under consideration are alike in their occupation of the diatonic modes. More detailed examination of the diatonic modes is in order.

Diatonic Modes Visualized with the Clockface Octave

By mode, I mean a restricted pitch vocabulary which is maintained for a time and implies a center pitch. Although notation and analysis tools used in the current writing may imply equal-tempered chromatic half-steps, I would like to leave open the likelihood that notated diatonic pitches will in fact be rendered by singers in unequal temperament. In fact, I believe such tunings are crucial to the sound and effectiveness of many characteristic sonorities of the diatonic set, but investigation of the idea exceeds the scope of the current writing. Alfred J. Swan (1943, 503-4) is emphatic on the issue of temperament, insisting as his first general point about the Russian diatonic repertoire that "the Russian peasant sings with just intonation." Investigators of the American shape note traditions are questioning the issue.

Center exerts a gravity as it were on the pitches of melody. The metaphor is common. Sometimes center is conflated with tonic or the first scale degree within tonality. However, center can be established and felt without the resources of tonality. Joseph Straus (1990, 91) makes pithy and relevant comments about establishing center within a modal context, even though he is referring to 20th century post-tonal techniques in general.

Even without the resources of tonality, music can be organized around referential centers…. In the absence of functional harmony and traditional voice leading, composers use a variety of contextual means of reinforcement. In the most general sense, notes that are stated frequently, sustained at length, placed in a registral extreme, played loudly, and rhythmically or metrically stressed tend to have priority over notes that don’t have those attributes.
Opportunities for metrical and rhythmical centerings can be further enhanced by the strengthened first and last downbeats of phrases in borrowed formal structures, for example, the miniatures of traditional hymnody as in my own tunebook.

Generations of theorists have been developing a post-tonal analytical paradigm able to observe tonality or its absence, a paradigm with fewer biased terms which may smuggle in a presumption of tonality. The distinction of center from tonic is one example. Perhaps for such reasons, many concepts from post-tonal theory seem particularly apt in discussing modal environments, and in pursuing, for example, a diatonic sensibility which might form a system which provides some alternatives to tonality's solutions.

One visual, iconic, idea from the post-tonals which I have found particularly convenient and illuminating is the "clockface octave" idea used to explain the mod 12 (modulo 12) numbering of pitch classes. Mod12 clockfaces are a sort of dehydrated view of all octaves within a pattern of octave equivalency. Joseph Straus (1990, 4) introduces the clockface octave saying "It is easiest to understand these (and other) mod 12 relationships by envisioning a circular clockface, like the one [embedded on right, from Straus (1990, 4)]."

Moving forward, generally the integers 10 and 11 will be replaced for clarity and convenience by the single characters E and T. This replacement is Straus' convention, which I have adopted. Some theorists use A and B instead, consistent with coding languages. An example is Paul Nelson (2007), on his composer tools website—a very handy source of good post-tonal theory information, even including a concise primer explaining basics. The diatonic modes are shown in figure 2.1 The most outstanding feature of the group is that
Figure 2.1 The Diatonic Series of Modes, Reflection Pairs in Clockface Octaves.
they are clockface rotations, that is, transpositions, of the same set, namely the diatonic set. Values are given for the term \textit{aim}, e.g. Ionian's aim = 38, Aeolian's aim is 35, and Dorian's 36. Aim may be a sort of quantified degree of major-ness or minor-ness. Aim is discussed further in Chapter 4, below. It is interesting to note that Ionian and Aeolian are not the symmetrical opposites of each other which might be suspected by traditions of key signatures and use of the concepts "major" and "minor." Rather, the clockface reflections or melodic inversions of those modes about an axis of symmetry including center shows that Ionian and Phrygian are analogously major and minor, as are the pairs Mixolydian—Aeolian and Lydian—Locrian. Dorian shows its own unique balance and aim of 36.

\textbf{Some Trends and Observations}

Charles Seeger (1940, 483-4) famously summarized a style he discerned in the shape note repertoire, delighting (p. 488: "Here is true style!") in the "outrageously heterodox" [from the perspective of tonality] trends he observed, including "parallel fifths, octaves, and unisons….unprepared and unresolved dissonances…. and cadences on [8 4 inversions]."

Wallace McKenzie (1989, 155) gives a similar list, emphasizing also "open fifths and other incomplete chords. McKenzie also gives lucid examination of style trends in competing revisions of \textit{The Sacred Harp}. Alfred Swan's (1943, 512) echo of Seeger's findings and the delight in them is striking. Swan finds "A basket of wild and forbidden fruit: parallel fifths, leaps in one direction, consecutive octaves, unresolved dissonances."He also finds teh results "bold and beautiful." Something of these shape note trends and others I have found and focused on in the past are indicated in the analysis symbols for observed modal stacks which
I felt compelled to create. Please see those ideas schematically in figure 2.3.

Figure 2.3. Analytical Symbols for Modal Diatonic Sensibility

These symbols are employed in the example of Alexander Johnson's 1818 tune DEVOTION, as printed in The Sacred Harp (1991, 48), shown in figure 2.4.

Figure 2.4. DEVOTION from 1991 Sacred Harp.
Microscopic Reversibility of Harmony. In addition to exhibiting many chord stacks not common in tonality, DEVOTION seems to evade the entire scheme of standard progressions. Any chord might meander randomly toward any other. By analogy with plausible satisfying organic chemistry reaction mechanisms, I have thought of such harmonic root motion as microscopic reversibility of harmony. The term is itself somewhat from the perspective of tonality, as if it were an explanation of the observations made when music propelled by modal logics is analyzed by harmonic logic. Whereas, really, so-called micro-reversibility of harmony is the breakdown of any regular progression of harmony—not because the ideas are unsound, but only because, as a tacit or lucid decision of taste and tradition, harmonic values are overwhelmed by the logics and forces of modes and melody lines, and of their very material or pitch vocabulary. That balance of forces is the real point, and is that of which microscopic reversibility of harmony is a symptom. Observation of micro-reversible harmony likely means that harmony, any harmony, is not the point, but rather that modal and melodic forces prevail.

Micro-reversible harmony is my answer to Rachel Hall's (2014) unanswered cadence. She examines several choice tunes from the shape note repertoire, including DEVOTION. Seeing the vi-I motions, she wonders reasonably whether shape note style is somehow dwelling comfortably with "deceptive" cadences, with unanswered cadences. I would back up the reframing a little further. Deceptive cadences presume expectations which can be deceived, expectations of tonality. If cliche progressions are not dominant in the balance of shaping forces, diatonic harmonies are free to move, meander, as they wish. No question, no expectation, no answer.
However, further interesting parallels arise out of the DEVOTION example. Alfred Swan (1943, 512) notes a trend in the Russian repertoire that "The dominant chord is divested of its priority and supplanted by VII, II, or even III." We observe much of roots vi and ii in DEVOTION. I suspect finer-grained inspection of Swan's data would find his VII and III more frequently in "minor" modes. If these have indeed replaced tonality's IV V I trinity, several trends are notable. First, the modal root groups vi-I-ii and VII-i-III are each mixed in their qualities of major and minor. Is it this mixture of qualities which causes the common response, repeated in Hall (2014), of feeling a "modal ambiguity" in shape note music? Next, the roots are close, stepwise-related, or almost. Very melodically-related. Straus (1990, 84): "...integrated use of [pc sets] as both melodies and harmonies..." Finally, the precise grouping is pc set (025), either [025] or [035]. Interesting results are explored in my analytical vignette of the anthologem TOMORROW, INSHA'LLAH in chapter 3, below.

I suggest that earlier observed dissonances are not so "casual"—unprepared, unresolved—or even dissonant. Rather, they cluster quite specifically in the way of modal integrity on ic's 5, 2, and 3, in preference to ic's 4, 1, and 6, all in that order. That order is the favored order of ic occurrences in the total interval vector of the diatonic set, i.v. = <254361>. For example, shape note tradition's distinctive stack, the ordered [7T0], one of (025) in [035] inversion, is seen to be a sort of essence of the character of the diatonic set, and arises within the [0257] of the direct chain from the whole set through its sequentially more-favored—in the sense, popular, frequent—subsets, as determined by interval vectors rather than tonal tradition. The entire second half of my schematic of analytical symbols for modal stacks consists of variations on (025), a primal and favored trichord of diatonic modal sensibility.
Chapter 3

Analytical Vignettes on *Gabriel's KAIROS FOR ALL* tunebook

Modes are not scales. But they have center. Modes are not tonal. Modes existed before tonality. Modes persist in and around and outside tonality. Modes will remain after tonality. I love modes and modal sounds and modal temperaments and modal thinking. I hope to write an entire bigger book just about modes and modal theory. It's a very hard and sophisticated subject, common prejudices notwithstanding.

—Allen Gabriel Kastelle (2005, 18)

[Alexander Dmitriyevich] Kastalsky has very aptly said that the znamenny chant is like an obstreperous child in the hands of a mother or nurse who is trying to give it a washing with soap, and will stubbornly elude any kind of handling.

—Alfred Julius Swan (1967, 27)

As a general statement, in my tunebook composing, I have borrowed traditional miniature hymnody structures and on-purpose loosened the dictates of harmony, especially defusing standard harmonic progressions, and eschewing stereotyped voice leadings and bass leaps for particular inversions. These structure and harmony choices have all helped to favor more melodic attention to every melody amongst many voices, and to favor a more than usually detailed interval vector sort of awareness of vertical pitch stack content and flavor. Thus, I gain many novelties, characteristic mannerisms, and vivid exaggerations in my composing, even within, really because working only within, certain specific, limited modal pitch vocabularies. Even while maintaining invariant modal vocabulary, I certainly borrow from the expectations of tonality on some occasions. Different individual pieces strike
different balances between the trends of tonality and diatonic modal thinking (see especially
the discussion of SANCTUARY and DOOMSDAY as a pair). Especially in the shorter strophic
hymn tunes, I have usually followed the practice of writing complete melody lines for each
part in turn, and most usually the germinal line is the "lead" or tenor (plus some women
usually) line, always on the staff immediately above the bass.

Comments on a few selected works within my KAIROS FOR ALL tunebook (KFAtb)
follow below. Tunebook order will be sacrificed in order to make better musical explanations
whenever appropriate. The tradition in the field of hymnody of writing tune names all-
capitalized will perhaps help the reader to connect comments with their tunes. The tunebook
is reproduced in Appendix Two. Added footers in the appendix give the Appendix Two (App.
2) section page numbers which correspond with the original page numbers in the tunebook.

GABRIEL's SHAKER BURDEN, App. 2 & KFAtb p. 5. The great idea here is to use
the names of the shapes as the words to sing. I got this idea from Tim Eriksen. The music is a
bright, cheery vocal dance, vying to be the type example of Ionian mode. The tune occurred
to me that way, with all the different rhythms in each part, and (thus?) has never found words
that I like with it. Setting the shape names as text let me save a piece of music I adore while
giving new singers a good learning tool. The tune is intended to loop around more times than
is usual with shape note singers, just because it's fun, and for practice on the shapes. Also,
I've always thought of these parts entering in all possible different orders, waiting a full
repeat between entries. I tried to design all the parts and stacking implications to be coherent
and effective in all those different contexts—good as a solo, good in harmony, and
everywhere in between..
Patent notes and FALLING SNOW, App. 2 & KFAtb p. 18. Practicing to sing the shape names happens twice, because there are two sets of shapes to learn. Shape names move compared with center depending on whether the tune is major or minor. The possibilities are depicted in figure 3.1. GABRIEL’s SHAKER BURDEN is Major, Key of Fa. The tune FALLING SNOW is minor, Key of La. FALLING SNOW is used to practice singing the shape names in the minor.

Figure 3.1. Four-shape "patent notes", Key of Fa (Major) and Key of La (minor).

SOJOURNER, App. 2 & KFAtb p. 6. SOJOURNER became my number one "ear worm" after my thesis recital, the tune most often repeating in my head in the days, even weeks, after the singing of my tunebook. The last phrase of the tenor lead line came to me first, and the trick was to keep the leap of a fifth up to the flatted seventh of the mode, within the third measure from the end, from sticking out too much. I break rules of modal melody, but I knew it, and compensated. To be able to compensate for trends is a good reason to know them. I recommend Ernst Krenek's (1959) concise booklet on modal polyphony, including wonderful discussion of melody, first, of course.
SANCTUARY (App. 2 & KFAtb pp. 12-3). SANCTUARY is a direct test of my idea of microscopically reversible harmony. The first and last nine and a half measures are an exact pitch palindrome of each other, with rhythms slightly altered accordingly. The reversible voices are also exchanged alto <=> bass and lead <=> treble. Note that these procedures not only reverse direction of harmonies in time, but also exchange weak and strong beats, and also make mayhem of chord inversions. Despite all these important changes, the harmony works just fine and no-one has ever really noticed the palindrome. I believe I make several points about shape note harmony and diatonic sensibility thereby.

SANCTUARY and DOOMSDAY appear similar in widest view (App. 2 & KFAtb pp. 12-3 and pp. 8-9, respectively). In each, the opening, longest section is minor, in a duple time signature. Plenty of iterated notes on same pitch encourage at least *poco marcato* singing. Then, the tunes turn major for a more lyrical or calm codetta entered through meter change to triple meter. Without the Aeolian-to-Ionian mode shift—remaining in minor—MORIAH shares the triple meter codetta which is, if not more lyrical, at least more calm. Perhaps these structure patterns are developing as a common personal idiosyncracy or style element.

However, such details are superficial musically, maybe I mean superstructural, in the sense that in each case they arise from matching large arc of music structure with widest view of overall text theme and development. After these over-arching elements are given, then musical shaping forces get busy filling their space. At that point, a more interesting commonality in the two tunes arises, namely that they each work within a uniquely-neogotiated balance of the trends of tonality and diatonic sensibility. I mean, for example, that in SANCTUARY, due to the palindromic technique, melodies were unusually turned
around. Melody lost a little territory in priority. I feel melody suffered for it. I find the parts more awkward than most of my choral writing. In fact, when I first recorded it on four-track as I often have to test my tunes, I only sang the lead and used instruments for the rest. This is the only tune to which I have resorted to instruments in that way.

Having learned from that experience, I adjusted better in DOOMSDAY. DOOMSDAY opens with a sustained open fifth plus minor seventh sonority over the root key note of the piece. Similar voicings abound. As if to compensate, to provide some familiar landscape for common singers in a tonality-permeated culture, DOOMSDAY also includes a large fraction of all the V-I, I, even iv-v-i cadences in my tunebook. Balancing trends and forces for familiarity. DOOMSDAY has proven an easily singable and popular tune.

Comments on Innovative Text Inclusions. Compared with other tunebooks in shape note singing traditions, my Gabriel's KAIROS FOR ALL tunebook (KFAtb) offers several innovations in text format and content. The first of these innovations has to do with sacred text epigraphs. In general, I model most of my printed-page look and format after the current 1991 Denson revision of The Sacred Harp. Scriptural micro-epigraphs for individual tunes were added to revisions of The Sacred Harp and related collections in the early 20th century, and continue still in the Denson revision of The Sacred Harp. My addition to this tradition is the intercalary epigraph, which I have innovated in my tunebook, I believe.

DOOMSDAY (App. 2 / KFAtb pp. 8-9) provides examples. The traditional location for scripture epigraph is singular, immediately below the title heading of the tune. Any passages of scripture beyond that is beyond the tradition. Location and content—secular—are both innovative for a shape note tunebook around my tune BARES (App. 2 / KFAtb p. 35). Traditional tune-specific epigraphs are exclusively scriptural. I have also drawn from other
hymnody-related resources (e.g. SOJOURNER, p. 5, FALLING SNOW, p. 18). Perhaps the most extreme example of additional or intercalary epigraphs is found surrounding NAMES OF GOD (App. Two / KFA tunebook p. 14). NAMES OF GOD represents further innovation in the use of tunebook text as instructions, perhaps akin to Yoko Ono or John Cage instruction pieces. For such everyday practice with NAMES OF GOD as recommended in the bottom-of-page instruction, it occurs to me that additional instructions should be added, since following the first may result in questions from others about one's singing practice (I have observed it so). The added instructions should then say: "If asked about singing this tune, smile, and recite any of the other proliferating epigraphs on the page as a reply. Then return gently to the singing."

Next, I am sometimes asked about my Dunbar anthems. In my tunebook, the poems "Right's Security" and "The Path" by the African-American poet and novelist Paul Laurence Dunbar (1872-1906) are set in the tunes SANCTUARY (KFAtb pp. 12-3) and ROCKS ASIDE (KFAtb pp. 30-3), respectively. Not all of my Dunbar anthems are in included in my tunebook. How do I model The Sacred Harp's format by my musical setting of apparently secular texts by a typically secular writer? Texts set in The Sacred Harp are not exclusively sacred, but sacred texts are overwhelmingly preponderant. Exceptions beg explanation. My standard reply for decades has been: "In times of oppression, the voice of the oppressed is sacred word." Say, race relations in America. Truth is, everyone's scriptures speak out for social justice. I can include Dunbar, and I can present a sacred tunebook. Also importantly, Dunbar shows unusual regularity in number and stress of syllables in each line of his strophic patterns. Such meticulous craftsmanship and technical command of language suit his texts very comfortably to strophic treatment—a great advantage in a tunebook, exploited in my
tune SANCTUARY. Dunbar compares quite favorably in this regard with, for example, the renowned English metaphysical poet George Herbert, whose poem "Virtue" is set in my tune PEPO on KFAtb p. 17. Awkward irregularities in syllables from verse to verse are represented in the first four measures of music by the alternatives provided in dotted lines and small cue-size notes for a variety of melismata and rhythms.

Finally, I am wider than prior shape note tradition in the range of sacred text chosen for setting to music. Especially, I may combine texts from scriptures of all of Judaism, Christianity, and Islam, thus forming miniature Abrahamic dialogues. Such multicultural, multisciptural micro-dialogues, set to music for singers, I have dubbed anthologems. This genre of anthologem is to my knowledge my own innovation and still unique amongst shape note traditions at least. Anthologems are examined in a separate section below, through the example of TOMORROW, INSHA'LLAH, beginning in my KFA tunebook on page 21.

An Example of the New Genre of Anthologem

TOMORROW, INSHA'LLAH Exhibits Invariant Global Diatonic Pitch

Vocabulary yet Shifting Center and Mode. In a sort of meta-word painting, my more adventurous texts—relative to Sacred Harp traditions—have been set with more experimental compositional strategies. The trend is apparent in my settings of Paul Laurence Dunbar texts (SANCTUARY and ROCKS ASIDE in my KFAtb, beginning on pp. 12 and 30, respectively), but is perhaps most pronounced in my anthologem TOMORROW, INSHA'LLAH (App. 2 and KFAtb pp. 21-7).
First, I would like to note that TOMORROW. INSHA'LLAH introduces in publication my own invented genre of anthologem. An **anthologem** is a micro-anthology of multicultural scripture set in an *a cappella* choral anthem, especially when gathered texts resonate around a single theme and are drawn from the religions of Abrahamic dialogue, namely Judaism, Christianity, and Islam. The term is a conflation of 'ANTHOLOG-(y)-' with '(ANTH)-EM'. As multifaceted gems have precious metal settings, so do these treasured texts receive special musical settings.

Next, to emphasize the overall sense of the collected texts in this particular example, I wished to imply an ostinato of constant awareness of the will of the LORD, to which all conforms. Thus, I conform the music throughout with uses or hearings of ordered pc set [035], which constantly recurs in the unifying motif setting "Insha'llah" and "Lord willing." [035] as a stack is a not-tertian, not-quartal seventh chord with a missing middle, for example, {D, A, C}, missing F or G. It is a crucial and attractive—even if not common—shape note sonority. It is a distillation of diatonic sensibility, found twice in the highly-favored [0257] occurring within the diatonic set's successive interval vector trends. It has no simple harmonic label, I would like to say exactly because it has more power when modal and melodic forces prevail over the harmonic. I handle the balances of power around [035] in a prevailingly diatonic modal and melodic space. Inversions [035] and [025] of (025) are also explored variously in melodic gestures and in varied center-implying usages throughout the piece. All these explorations of (025) are a sort of compositional manifesto on [035] / (025).

Additionally, [035] describes the relation of Ionian, Aeolian, and Dorian mode centers which share the constant diatonic pitch vocabulary of the anthologem, that is F-Aeolian, A-flat Ionian, and B-flat Dorian. These centers are in fact used to clarify the largest-
scale regions within the anthologem. These regions of modal integrity yet varied center are identified in the music by single bold-thick barlines and by changes of scripture source in the texts. The pc set [035] thus receives intensive integrated use in melody, in pitch stack sonorities, and in organizing the largest-scale structure of the piece.

I find a model for such triply-integrated use of inversions [035] and [025] of (025) in the work of Alexander Kastalsky. Close analysis reveals these integrated details within a strict diatonic vocabulary in Kastalsky's early liturgical set pieces "When Augustus Ruled" (Kastalsky 2005 [1903]) and Lord Now Lettest Thou" (No. 1) (Kastalsky 1981). More detailed analyses of my anthologem TOMORROW, INSHA'LLAH and Kastalsky's set pieces, beyond the scope of the present writing, offer further demonstrations of the concise effective utility of pc sets and of their accompanying post-tonal terms, even in music dominated by diatonic modal and melodic logics.

A note on the title closing: "singers of the hollow square." I am profoundly grateful to Sacred Harp singers and all others who keep various traditions alive. Perhaps my innovations in music are less radical than those in words and texts. It may therefore be a respectful idea to distinguish my musical and textual trends from possibly distinct cultures or communities such as "shape note singers" or "Sacred Harp music." I suggest that such traditions and groups and also my own experiments all occupy together the larger categories of hollow square music and hollow square traditions. I choose the shape notes out of affection and for the clear point they make about the strict modal vocabulary, the modal integrity, of my works. Also, I like the sound and the mix of voices implied by four parts written for hollow square a cappella. Further, the spatial array of parts around a hollow square
of singers is grand and fun. Live performance by hollow square of human singers is my ideal for my shape note tunes.

Singers of the hollow square don't tend to rehearse much. Mostly they just get together and sing through tunes. For the composer, such extreme rehearsal constraint argues for a modesty in certain technical demands made on singers, a modesty which can be mistaken for concerns for accessibility, popularity, and such. There may be substantial overlap in final results, but the methods and logics of these goals are actually quite different. On this question of practicality / accessibility, I feel that I have struck the balance just right in my KFA tunebook. The preponderance of the tunebook is basically readable, apparently at least. Appearances can be deceiving. Only a few tunes likely really demand rehearsal, or at least real and developed ability plus quality attention. Perhaps he outlier examples of singer challenge are TOMORROW, INSHA'LLAH and ROCKS ASIDE. For tunes for the hollow square, generally I don't intend in the future to write more challenging tunes than those. Even within such constraints, my tunebook demonstrates varieties of innovation and experiment. In that experimental spirit, and to satisfy a certain temperament expressed well by Ernst Krenek (read on), let us consider, as an extension and example of modal integrity's sort of thinking, the Selenial Series of modes along with other invented modal landscapes from Ferrucio Busoni and Neely Bruce.
Chapter 4

Modal Integrity Beyond Traditional Repertoires

To express something really valid one must look for assumptions of a more general kind than the one which the thought-structure is meant to protect. In other words, we need to sketch out an aesthetic theory which, in its turn, is autonomous with regard to the historical facts of particular sound-language areas, particular styles.

—Ernst Krenek (1966, 134)

The Selenial Series of Modes

The appeal of Ernst Krenek in the epigraph is inspiring. It also resonates with my temperament. If an innovator's concepts lose practical value outside the innovator's pet structure of the moment, then the concepts are suspect. They should be valid beyond the particular subject at hand, maybe even beyond traditional bodies of repertoire. From a composer's viewpoint, especially in pre-compositional thinking, the epigraph is a plea for practical value, utility. Maybe the feeling of the epigraph could be paraphrased, "I don't want your rationalizing of whatever you're fancying—show me, what can I do with these ideas? Show me that, then I'll know you're really on to something."

As an example of a modal series from beyond, a modal environment supporting very little of any traditional body of repertoire, and a collection of resources for composers, I present the Selenial series of modes. The Selenial series, like the diatonic, is seven-membered, and spans the octave with two half steps, $ic_1$, separated by an array of five whole steps, $ic_2$. However, their precise pitch arrangement differs from the diatonic, as if the black keys of a piano were grouped (one, four, one, four, …) rather than the familiar (two, three,
The series is most concisely conveyed in an array of prose, abbreviation, and ordered pc set symbols.

**Selenial Modes** = members of (013468T), Forte number 7-34, rotated to 0 = center.

- Se  Selenium mode, [024679T]
- Zr  Zirconial "", [023568T]
- Ph  Phosphorial [013579T]
- As  Arsenial [023579E]
- Hg  Mercurial [024578T]
- Pu  Plutonial [013468T]
- Pd  Palladial [024689E]

I conceived these terms and abbreviations and set definitions in the late 1990s. For the Selenial series of modes, I borrow abbreviations from chemistry's periodic table. However, of the terms denoting the modes, most have invented suffixes. I show the Selenial series of modes in clockface octaves, ordered, with zero = center, in figure 4.1. For convenience in comparisons, the similar figure of diatonic clockface octaves is repeated as Figure 4.2. The Arsenial Mode of the Selenial series is familiar within tonality as the ascending form of melodic minor scale.

The Selenial and diatonic series of modes have many similarities. Like the diatonic series, the Selenial modes are all transpositions of a single pc set, Forte number 7-34 for the Selenial series. This transposition relationship is seen in the clockfaces as the observation that rotation of a single array of pitches will map that single array onto the particular pitches of each and every one of the modes of the series. Selenium mode is the type example of the series, in the same way, perhaps, as Ionian mode serves as the type example of the diatonic series of modes. They have many similarities.
Figure 4.1. The Selenial Series of Modes in Clockface Octaves.
Figure 4.2. The Diatonic Series of Modes in Clockface Octaves.
Aim and its interpretation. Selenium and Ionian modes share the same aim of 38, traditional "major." Aim seemed less interesting when considering only members of the familiar diatonic set, so discussion of the term was put off until this relevant point in the development. Aim is degree of "major-ness" or "minor-ness" turned into a numerical value. Put another way, aim is the continuum occupied by "major" and "minor." Aim is simple: with zero as the center of a seven pitch set expressed in mod12 or clockface numbers, simply add up all the numbers.

For example, Ionian mode is [024579E], so simply add 0+2+4+5+7+9+11 = 38 = the aim of Ionian. Adding the values of Selenium mode's elements, the same sum, 38, is obtained as the aim of the mode. Numbers for aim seem to match intuitions, yet also to provide means for comparison where experience and intuition are lacking. The varied gradations and extremes of aim and their associated affects are compositional resources.

Aim reminds us that there exist not only major and minor, but also a finer gradient of more possibilities in those two directions. For example, "Phrygian (aim = 34) is more minor than Aeolian (aim = 35)," the 'type' of minor. Dorian (aim = 36) is the type of balance, neither major nor minor. Dorian suggests that aim = 36 = balance, some sort of cool, dependable, beautiful, contemplative balance. Those adjectives describe a composer's stereotypical affective use of Dorian. Dorian has no passionate, magnetic half steps or leading tones around center: no pc 1 in its center vector. Dorian mode is another resource for the composer's toolbox. Dorian's balance is visible in its c.v.,<022020>, in that ic relations with center appear only in pairs. As above center, so below. This property of the mode is visible on the clockface octave as an axis of reflective symmetry which includes center. That is, if Dorian mode's clockface array were on paper on a stick, skewered through pc's 0 and 6, then
Dorian shows the interesting and special property that when spun half-way around, 180°, it will map onto itself—it will look the same.

The Selenial series of modes exhibits both a greater and lesser value of aim than can be found in the diatonic series. Consideration of aim makes clear that clustered half steps are indeed some sort of magnetic force, great enough to sling wider the collective ambit of the aims of a mode series. In the Selenial series, Palladial (aim = 40) is more major than Lydian (aim = 39), the highest value of aim found in the diatonic series. Similarly, Selenial's Plutonial (aim = 32) is more minor, so to speak, than Locrian (aim = 33), the smallest aim amongst the diatonic series. Interestingly, the extreme aims of the Selenial series remain equidistant from aim = 36 = balance. The aim extremes of the Selenial series, Palladial (40) and Plutonial (32) are also equidistant from 36. The coincidence of this observation across pc sets classes reinforces the notion that for a seven-membered, centric set, aim = 36 = balance. The mode in the Selenial series which shares both Dorian's axis of reflection about center and its median, balanced aim of 36 is the Mercurial mode. Everything traditional and interesting about Dorian mode argues for exploring Mercurial mode, especially the shared, crucial, cooling whole steps about center. Mercurial mode is another tool for the composer's toolbox.

**Inversional or Reflective Symmetry of Diatonic and Selenial Modes.** Reflective symmetry—an inversion and transposition relationship—is a property of all the Selenial and Diatonic modes, not only Dorian and Mercurial. However, not all the modes of these series have their axis of reflective symmetry on their center pitch. For example, another similarity between Ionian and Selenium modes is that they map onto themselves under inversion and transposition at the index number 4, that is, at T4I. I have not spoken of index numbers n and Tₙ,I operations on set classes, mostly because the property is easier for me to discern and

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handle by observing a self-mapping axis of reflection on the clockface octaves, easier to
depict tacitly with the figures. Consulting the clockfaces, it is clear both the Ionian and
Selenium modes have an axis of reflection including pc 2 and pc 8 up from center = zero.
Seeing these properties provides composers with tools for contrapuntal techniques, which
may influence the general balance of forces in a work. If considered and utilized in
composing, these properties promote modal integrity. That is, characteristics of the modal
environment impact the general construction and structural integrity of the composed music.

Other precedents exist of use of the Selenial series of modes. I was unaware of
precedents when I began working with and naming these "Selenial" modes. Sergei
Rachmaninov creates a very striking sense of the pitch array of Mercurial mode near the
middle of his concerto for chorus with title translated variously as "O Mother of God,
Vigilantly Praying" or "The Theotokos, Ever-Vigilant in Prayer." In a fugato section, the first
and third voices open by ascending the entire Mercurial mode from lower to higher center,
then following the melodic subject through leaps and gestures back down through the same
set. The center of Mercurial mode in this interpretation is G, which is the opening and closing
and prevailing center of the concerto as a whole. (Rachmaninov 1991 [1893], pp. 11-3).
There are other precursors. Perhaps Hungary and its neighbors possess enough music in
Selenium mode to be called a body of repertoire. I suspect Bartok at least found some
occurrences of the mode. If so, it is not a repertoire I know. If concepts presented here could
be useful in exploring patterns and forces in traditional selenial repertoire, if such exists, I
would find that quite interesting. However, noting possible uses of concepts presented here is
tangential to acknowledgment of precedents in explorations of the Selenial series. Bartok
discerned Selenium mode in the harmonic overtone series, and thus named the pitch array the acoustic scale or scale of nature.

**Musical Example: Selenium Duo**

I was curious to explore Selenium mode and its novel landscape of more and less favored pitches. In order to explore, I composed a pilot study in the mode for violin duo, the "Selenium Duo" shown in figure 4.3. I chose to center the mode on D, a very violinistic center, thus Se = [024679T] becomes \{d, e, f-sharp, g-sharp, a, b, c[-natural!]\}. The opening eight bars simply state the pitch class material, the vocabulary of the mode, as directly as possible, first as a solo line for VN I, then exploring the interesting variety of ic's arising from a pseudo-organum accompaniment of apparently parallel modal fourths. Using Selenium mode's distinctive axis of reflection about pc 2—pc 8, the VN I part of mm. 9-16 is inverted about e = pc 2 to generate mm. 17-24. Also at measure nine, continuing for a few measures, VN II uses the material of VN I mm. 9 ff. transposed modally up two steps to harmonize with VN I's inversion of the same material. Measures 9-16 of VN I return again an octave higher as a concise coda, the final bars, mm. 37-44. In this coda, VN II also repeats material, its own opening eight bars, only altered slightly for a convincing ending on center. In composing, I surmised that following the rules of such contrapuntal tricks would help in hearing the character of the mode itself, rather than allowing me to smuggle in some cliche moves of melody learned in experiences gained predominanlty in the environments of diatonic modes and tonality.

Considerations of interval class content featured prominently in constructing "Selenium Duo." The interval and center vectors of Selenium mode suggest both vertical or stacking considerations and also leaps in melody lines fitting for the Selenial environment.
Figure 5.3. Selenium Duo for two violins, by Allen Gabriel Kastelle.
However, Selenium mode being a mode, stacking preferences were presumed to be subject to microscopic-reversibility of harmony, thus obviating any need to invent or discern plausible Selenial "harmonic progressions," and suggesting a casual attitude to stacking inversions.

Compared with the diatonic set, the Selenial set (Forte no. 7-34) is less rich in the variety of occurrences of particular ic's in its i.v. = <254442>. Minor and major thirds, ic's 3 and 4, are tied in occurrences at 4 in Selenium's i.v., rather than the minor ic 3 being slightly favored as in the diatonic series. In Selenium mode, ic 5 is down two in popularity, but ic 2 remains at five occurrences, now the leader here. Tritone content is doubled compared with diatonic modes. Selenium mode's center vector = <021111> shows similar trends, even including the {d—g-sharp} tritone. Similarity in trends between a particular mode's c.v. and the i.v. of its whole pc set class suggests a good prognosis for melody to move easily and comfortably in and out of center in the particular mode. Selenium mode's similarities to Ionian, its consensus between i.v. and c.v., and the cool whole steps around center suggest a good prognosis for gracious melody lines. However, a summary of the i.v. content suggest that as multiple voices are added, in general, even-numbered ic's should be favored significantly compared with Ionian, even the tritone, even sounded with center, and these factors will give a distinctive sound to Selenial mode. A glance anywhere at the score will show the modal trends of Selenium mode as described here.

**Busoni's Discussion of Modes**

Remarkably, in his most famous musical esthetics essay, Ferruccio Busoni (1962 [1911]) chooses for his first illustrative example of modal explorations a pair of modes from
the Selenial series. He uses transpositions of the pc set class (013468T), Forte no. 7-34, in his
discussion of the importance of interpreting different centers within the same collection of
pitch classes. Busoni (1962, 92) writes that "There is a significant difference between the
sound of the scale c, d-flat, e-flat, f-flat, g-flat, a-flat, b-flat, c when c is taken as tonic, and
the scale of d-flat minor." Indeed! With these modes, Busoni is exploring centricity without
tonality, and finding much. Shown on the clockface, as in figure 4.4, these modes are
instantly recognizable as the Plutonial and Arsenial modes of the previously discussed Selenial
series.

Figure 4.4. Busoni's different centers.

Next, Busoni (1962, 93) asks rhetorically "how would a lawgiver [his term for
pedants in music] classify the tone-series [A] c, d-flat, e-flat, f-flat, g, a, b, c, [B] c, d-flat, e-
flat, f, g-flat, a, b, c, [C] c, d, e-flat, f-flat, g-flat, a, b, c, [D] c, d-flat, e, f, g-flat, a, b-flat, c?
[bracketed letter-set labels added]" These different tone series are shown on clockface
octaves in figure 4.5, along with information on the Forte number set class to which they
belong, aims, and interval vectors. Several features of the group are immediately outstanding.
First in prominence to me is Busoni's penchant for half steps and clusters of half steps. Next,
and quite shrewdly, Busoni has listed not only different pitch sets, but also members of
entirely different set classes, as shown clearly by comparing the clockface arrays and in the unique Forte numbers for each. His initial examples from the Selenial series used yet another set class, Forte no. 7-34. More subtly, every set [A], [B], [C], and [D] of Busoni’s new list to the lawgivers shares the same aim, namely 35. Perhaps in these modal environments music spelled with these vocabularies will have a gently and typical "minor" feeling, akin to Aeolian which shares their aim of 35? Was Busoni really thinking of aim?

Figure 5.5 Busoni’s different tone-series: challenge to the law-givers.

Busoni (1962 [1911], 93) continues his classification challenge list to the lawgivers after interjecting “…or these, forsooth: [E] c, d, e-flat, f-flat, g, a-sharp, b, c, [F] c, d, e-flat, f-flat, g-sharp, a, b,c, [G] c, d-flat, e-flat, f-sharp, g-sharp, a, b-flat, c?" This further group of pc sets [E], [F], [G] is shown in clockface octaves in figure 4.6. Again, the group shares an
aim, but the aim is 37, equally as slightly major as the previous group (aim = 35) was minor, compared with the balanced aim 36 observed previously in multiple modes. Maybe there's really something to this idea of aim.

Others before me have given much attention to the total interval class content of sets, that is, interval vectors. Sets of different set classes which nonetheless have the same i.v. are said to bear a Z-relation to each other. Shared i.v. is what Z means. It is not an abbreviation for anything. The fact of shared interval class content between different pc sets has been important enough to previous theorists that it has become standard to add a letter Z to the Forte number of sets which stand in this relation to others. Busoni's anticipation of this later post-tonal theorizing is uncanny. His "tone series" or pc sets [E] and [F] each bear a Z-relation with other set classes. Specifically, [E] or Forte no. 7-Z17 shares i.v. <434541> with
7-Z37, and [F] or Forte no. 7-Z38 shares i.v. <434442> with 7-Z18. This Z-relation information and interval vectors are listed in any typical table of prime forms of set classes, as in Straus (1990) or Nelson (2007). In the modern standard terms, Busoni’s set [G] does not represent another different set class. [G] can be recognized as an inversion of [C], and both are thus members of set class Forte number 7-25. Busoni’s [translator’s] term tone-series does not use the expression in quite the sense of later serialists or other post-tonal theorists, so it’s a little hard to discern whether Busoni’s set [G] is really another distinct challenge for the lawgivers.

Amidst the general group observations, very little has been described of the character of individual modes on Busoni’s lists. Briefly, comments directed more at specific modes are in order. Throughout, one must observe such a penchant for half steps, three each of ic 1 in sets [A], [B], and [C]. These half steps are mostly clustered around center, and make one worry whether melodies will be free to flow in and out of center while getting tangled in such dense webs of magnetic half step forces. Melody may be a bit challenged in these modes. Mode [D] carries the issue further with four half step ic 1's in its interval vector and two resulting augmented second steps. Notice that given a constant seven members to span an octave, for each half step over two in a set's ic content, there must be an augmented second or other similarly bloated "step" to return the set's total span to an octave. [A], [B], and [C] have three half steps each, and one augmented second. [B] also possesses the interesting decentering challenge of a [0369] amongst its pitches, known as a fully-diminished seventh chord, in other contexts. In any context, a chord with such multiple symmetry is a challenge to center: theoretically, it could "resolve" through any of its equivalent members! [D] has four half steps, and thus two augmented seconds. All these irregularities are challenges to the free
flow of melody. It is interesting to note the augmented triad \{1, 5, 9\} in set [D]. Set [D]'s most popular ic is ic 4, scoring 5 occurrences in the interval vector. IC 3 is tied for second at 4 occurrences. Thus, it is tempting to look at \{2, 5, 9\} "resolving" as it were to \{0, 4, 9\}, with the common tone \{9\}. Although not exactly triads, the analogy with V => I in tonal environments is quite rich. However, the multiply-transposable symmetry of an augmented triad [048] is a decentering ambiguity just as is the aforementioned [0369] of set [B]. At least here in [D] the symmetrical decentering subset does not include the center pitch. The set [D] also exhibits an exploitable axis of reflective symmetry about pc's 5 and E. Busoni's fifth set [E], also known as 7-Z17, also contains the challenges of four half steps, two augmented seconds. In fact, the two are consecutive, making of two modal steps a tritone \{f-flat to a-sharp\}! That's a lonely g isolated in the middle. [E] possesses an axis of reflection about pc's 1 and 7, though with such clusters of half steps and augmented seconds, it is unclear how any melody might find its way freely to explore that inversion opportunity. Maybe despite being a seven-member mode this set is better-suited for aggressive post-tonal variations of statements of the aggregate than for traditional melody motion through a pitch environment.

Characteristics of set [F] mostly exaggerate the trends of [E]. In [F], a decentering [048] includes the center, thus \{0,4,8\}. Then, the extremity of f-flat to g-sharp = ic 4 as a single "step". Along with the half step clusters and embedded [048] suggest again that set [F] is perhaps better suited for aggressive post-tonal aggregate manipulations than for fine lines of melody. Busoni probably planned it out already, judging from the remarkable insights hinted at by his listing and groupings. [G] is a reflection (that is, inversion plus transposition) of [C]. They are both members of class 7-25. Overall, Busoni has presented a very thoughtful and provocative gathering of modes with strong, distinct characters able to serve as inspiring
compositional resources interacting with the elements chosen from other dimensions amongst the shaping forces of music. In short, we are given fine opportunities for examples of modal integrity.

**Modes in The Blue Box by Neely Bruce**

*The Blue Box* is a work for solo piano by composer Neely Bruce (rev. 2006 [Orig. 1998-9]), Professor of Music at Wesleyan University. Comprising 12 brief numbers or movements, each movement is rigorous in its adherence to a different particular seven pitch vocabulary. The movements are quite consciously centric as well, and named centers rise one half step for each movement, beginning with $c$ for "The Blue Box: No. 1" and ending with $b$ for "The Blue Box: No. 12." Differing modes are integral to the large scale structure of the work—here is modal integrity. The rigor and clarity of the examples invite exploration. I show the modes in clockface octaves, and provide analytical vignettes of the expected modal environments and the resources they offer for composition. Personal anecdotal recollection testifies that on multiple occasions, the composer of *The Blue Box* has called these clockface vignettes of his work "illuminating."

The elaborated clockface octave pictures of the modes of the the first six numbers of *The Blue Box* are shown in figure 4.7. The mode of "The Blue Box: No. 1" is a member of set class 7-22, as was Busoni's challenge to the lawgivers [D]. The melodic and centering challenges of clustered half-steps and augmented steps haven been noted. In the transposition chosen by Bruce, a major triad on center \{0, 4, 7\} is present, and each member of hte triad has its own "leading tone" a half-step underneath. These properties are exploitable. The mode
of the second number is a member of 7-32, rotated to a low aim of 31. Compared with the initial mode, the second shows a more even distribution of step-size between its members and a slightly more varied i.v., properties which argue for a more fluent ease in melody and a finer heirarchy of favor in the subsets of the mode. Both features represent expanded

Figure 4.7. Modes of *The Blue Box* by Neely Bruce.
resources and opportunities from which a composer may choose. The third, fifth, and sixth modes from *The Blue Box* are members of 7-35, the diatonic set class. Transpositions chosen yield Dorian (aim = 36), Phrygian (aim = 34), and Lydian (aim = 39) modes. The properties of the diatonic set are familiar. Similarly, the mode of "The Blue Box: No. 4" is now familiar to readers as Palladial mode, the "most major" of the Selenial series at aim = 40. Interesting opportunities abound.

Amongst the first six modes, no aim has been repeated. Also, excepting quite different centers or transpositions of the diatonic set, no set class has been repeated—trends which will continue through the group of twelve modes. The exception is a repeat of 7-22 in "The Blue Box: no. 7" and "no. 11," which will be discussed.

The modes of the concluding six numbers of *The Blue Box* are shown in figure 4.8. The mode of "The Blue Box: No. 7" is interestingly chaotic. This example of Forte no. 7-33 may be seen as a whole tone scale with a foreign center pitch dropped between one of the whole tones. Everything about the perspective from this center, c.v. <202020>, is at odds with the trends of the set as a whole, i.v. <262623>. Such divergence creates challenges. The very challenge is perhaps a commentary on the center f-sharp, most distant and often unpopular pc compared with the original center c of the work as a whole. Symmetry and aim properties of the mode are interesting, and may ameliorate the chaos of mismatched center and total interval vectors. The aim is the balanced 36, shared with Dorian and Mercurial modes. Indeed, set class 7-33 can be seen as the next in the progression of widening aims—more-tightly-clustered half steps and concomitant "magnetic" forces—in sets with a reflective axis of symmetry, following after the diatonic set, 7-35, and the Selenial set class 7-34.
Traditional Mixolydian mode appears for "The Blue Box: No. 8." The diatonic set is familiar. Mixolydian's c.v. = <021120> is shared with Aeolian mode. The view from center is lacking tritone or half-step, and other ic's are favored very much in accord with the trends of the diatonic set as a whole. Mixolydian mode provides a very humane and comfortable diatonic modal environment, perhaps underappreciated and underexploited in general.

Figure 4.8. Modes of The Blue Box, con't.
The mode of "The Blue Box: No. 9" is a member of 7-21 with the first repeated aim = 34. Half steps proliferate and cluster, especially around center. Notice that the pitches of consecutive augmented triads \{E, 3, 7\} and \{0, 4, 8\} can also spell major and minor triads, e.g. \{0, 4, 7\} and \{8, E, 3\}. The popularity of augmented triads in this mode is hinted at by the i.v. <424641> and the most highly favored ic 4 at six occurrences. The mode presents interesting challenges and opportunities to composers.

The mode of "The Blue Box: No. 10" is the familiar diatonic Aeolian mode of aim 35. As observed earlier, by repeating a new transposition of a set from 7-33, the mode of "The Blue Box: No. 11" represents the only repetition within a set class outside of the diatonic set. It is the whole tone scale plus one extra pitch, this time placed a perfect fifth above the center pitch. Thus, pc 7 is the interloper, so to speak, amongst the whole tone scale, and the center vector here bears a much more comfortable similarity to the trends of the mode's total ic content—c.v. = <020211> and i.v. = <262623>. Such correspondence suggest opportunities for more versatile, free-flowing melody in and out of center than in the rotation of "The Blue Box: No. 7." Nonetheless, it seems a precarious mode, with forces too extreme and gradations of i.v. popularity too coarse. Various compositional strategies for reconciling these issues would be interesting to see. Bruce concludes The Blue Box's tour of varied modes with another diatonic example, Locrian, aim = 33. With this mode statement, all the diatonic modes have been used except Ionian. The omission is consistent with my own sense that Ionian is the type example of the set. It is as if Ionian is too familiar, too much a stay-at-home, and the point in The Blue Box is to explore. Whatever the details inside the numbers, clearly a shrewd variety of modes meticulously-observed provide a provocative variety of movement landscapes which propel the largest scale structure of The Blue Box. Modal
thinking is integral to the structure. These examples, along with Busoni’s and my own, extend the concepts and analytical strategies handled throughout this thesis. Perhaps thereby they serve to make the ideas more plausible in general, more familiar, and more securely relevant within the original diatonic modal environment. Surely, language for pre-compositional thinking is enriched. Even today, more thorough understanding of modes and modal shaping forces can have wide impact on compositional thinking and construction.
Introduction to Strategic Improvisation:

syllabus for performance—flexible outline

My "Introduction to Strategic Improvisation" is also a concise—almost schematic—music theory guide to the dimensions of music. My view of the dimensions of music is expanded and generalized from the wonderful central insight of Ernst Toch's (1977, passim) _The Shaping Forces in Music_. That insight is simply that there are such things as the title names, and his subtitle lists the examples he explores: "… Harmony, Melody, Counterpoint and Form." I use "dimension" and "[shaping]force" roughly interchangeably, and add more kinds and more different examples within some kinds. It occurs to me now that I have horribly omitted anything about the spatiality of sound, about all that is genuinely _stereo_-about experiencing it and planning it. A shame, since the topic is large in all of importance, detail, and history of use and example in many different strains of my works. May I be forgiven by my advisor, protege of spatial master Henry Brant? Spatiality in my tunebook composing is mentioned via the hollow square of singers addressed in the program notes included at the end of the tunebook's Appendix Two, infra.

I feel that the schema presented in this Appendix One is crucial to the thinking of the main body of this writing. Yet, like the finer rules of melody or the rationale for diatonic sensibility, this material doesn't fit in. It doesn't match the viewpoint level of the main body of writing—rules of wriggles in melody are too fine, this schema too wide.
Modal integrity and modal polyphony systems explore a middle area of musical space where tonality is all-permeating but often weak, where melody reigns supreme, and where stacks of modal pitch subsets occupy a subtle continuum of interval vector variety, which can be made to serve a surprising variety of purposes, especially when advantages are gained by borrowing a context of traditional text forms and phrase structures. Even just a glance through this Appendix One I believe can clarify what I mean by such situating statements—and clarify much of the main body of the present thesis.

My performance outline "Introduction to Strategic Improvisation" is reproduced in the pages below. It is an interactive group music dictionary and guide book, quite different from others'. It is also my theory outline of the shaping forces of music, as it says in concluding "Outro":

It's only an outline, just a list of topics, and we don't need to cover it all or cover it deeply. Most important for us is that we do cover the territory evenly, and have at least some words and musical ideas to describe our sounds in all the different dimensions that music occupies. This outline just reminds us of the general areas of constructing strategy or dimensions of music we want to explore.

Thanks for reading!
INTRODUCTION TO STRATEGIC IMPROVISATION--
syllabus for performance ensemble:
A Flexible Outline of Theory, Listening, and Exercises
A. Gabriel Kaste-- instructor / conductor / facilitator / travel guide and companion
e-mail: gabrieltin"at"gmail.com cell: 215-287-2851

[[Insert departmental Performing Ensemble course number here]]
[[Insert language about instrumental (voice is an instrument) proficiency prerequisite background-- this is institution / context dependent, so I won't specify here]]
[[Likewise, credits for course, time and place ea. week, enrollment limits, performance date(s) and info &c.]]

INTRO:
Dear Friendly Collaborators--

Truth is, there's a lot of music theory in my vision of Strategic Improvisation, so perhaps I should first explain and praise music theory. I imagine that the more (clearly) I write, the less I'll have to talk, and we can get on with playing more music. Music is better! Writing or talking about music is very difficult. However, I believe that if musicians CAN talk with each other about the music they perform together (whether or not they actually DO talk!), then the quality of the music and the satisfaction in the experience of playing and hearing it can improve greatly. Also, if we can speak clearly and briefly about our music, we'll be better able to coordinate with each other and with any other collaborators-- actors and dancers and tech crew and writers and choreographers and directors and producers and financiers and... :-) 

Music is not a universal language-- it is a medium like speech or writing which can bear all the world's languages and cultures. Out of all that, our goal here will be to choose and agree on just a few words and ideas which we can use to discuss, criticize, and plan the music we play together.... Basically, I am presenting many ideas, too many, from which we can choose in order to create our own group language for use in improvising music together. Since I include too much, each of you should help edit for us all by reading through this outline and asking to spend rehearsal time in the areas which most interest you, or confuse you, or otherwise attract you...

What is Strategic Improvisation? Improvising music, roughly, is playing music NOW which you've never heard or played before, and can probably never play again. It's not planned exactly. It's different every time. The excitement of that never goes away!! If, besides making your sound, you can also listen to everything else around you and take the viewpoint that hears how everything fits together and fills the time and space of music, then you are paying attention to strategy-- strategy for constructing the whole span of music. When this awareness of constructing strategy affects your choices in improvising, we have strategic improvisation.
Music theory is not boring or tedious. It makes music more fun and powerful and beautiful, and it gives musicians more awareness, freedom, and balance throughout the MANY dimensions and deeps of musical structure. All the ideas of music theory I present here are just so many handles on the materials and dimensions of musical structure. But theory ideas alone are no good until they get in to our ears and bones and heart and breath and fingers and dreams and unconscious-- so besides theory we will have listening and exercises.

An explanatory note: Any term or phrase preceded by an *asterisk will receive special treatment and discussion as time allows. Such terms and phrases include musical jargon terms standard in many differing traditions and cultures, some names and proper nouns, and some coinages of my own or else common words with idiosyncratic usage here. Topics and some of their order are flexible, and may be adapted, deepened, or shrunk to match the interests and powers of our participants and the time available.... Speak up! We will be creating our own unique improvising language and style!

[0] MELODY
Theory: All-pervasive.... *Melody: What one voice can do. *Phrase: What one voice can do with one breath (*gesture). Ernst Toch quotes. :-) (song-dance dichotomy?) (Consider Krenek's rules and analogies with physics forces and moving objects, from Renaissance Polyphony pamphlet?) Ruach! -- like water to a fish, air to us ....

Listening / Exercises: You-- now! Recommend *Bellini project*: commit to writing a melody a day every day for one month (self-recording might replace writing...)

[1] BASICS for GETTING STARTED

Intro. to pitch topics: begin *pitch vocabulary, incl. some *scales; *pitch dimensions (*horizontal *melody; *vertical *staves incl. *interval, *dyad, *triad, *chord, *harmony); *Center (of 'gravity'); *consonance; *dissonance; *magnetism; .....

Listening: John Adams: Common Tones in Simple Time, Christian Zeal and Activity, Claudio Monteverdi: "Ah dolente partire" opening I; AGK Spring Hope incl. advice "count the bass notes", *Schenker bass---

Exercises: Timed and conducted *Schenker curve" (just I-V- V7- I .... maybe try to sneak in a quartal [I between V7 and I by ordering conduced resolution, for use as listening example in later unit)

[2] LOOPS
Theory: Continue pitch topics and add *modes [[ introduce *clockface octaves, *interval names ? ]]. Introduce *Cell-*Loop-*Groove and notations -- can be complete in themselves! *"Minimalism"; different cultures emphasizing different musical dimensions.

Listening: Terry Riley: In C [my Purple // 39th & Lanc. recordings]; Adams: Shaker Loops excerpts; AGK: LBW 88a; West African drum excerpts [Chernoff; Smithsonian

77
samples]. Also: from this time on, Listening practice may at any time include recordings of our exercises from current or previous meetings... very educational :-) !!

**Exercises:** In C, LBW B83a, finally. Practice different evolution pacings chosen by performers, not conducted. <<< prop: bring hourglasses-- begin to use consistently>>> >>>>> invite writers !!

[ 2+ ] **OSTINATO**

**Theory:** *Ostinato implies incompleteness: Backbone needs flesh-- there must exist a different *foreground. *Foreground, *background through varied means: *rhythmic activation, *viscosity [and consider *tessitura] and even different uses / meanings of and physiological responses to different pitch ranges]; [acknowledge but de-emph. *dynamics]; *length/articulation [prominent long *legato lines vs. blurred *pointillistic atmosphere--(cf. *Alberti bass; *vamp)]; the dangers of **noodling**

**Listening:** Poulenc: Perp. Mob. ?; Fela Kuti: Opposite People, Sorrow Tears and Blood; Pachelbel: Canon; AGK: Doron Bar Mitzvah; Temptations: Ball of Confusion; AGK: Caribou Mounting, melody and ostinato becoming each other: Sibelius: Pohjola's Daughter; Symphony 5, IV; and passim!

**Exercises:** *mixed construction: ostinati plus melody (take turns, individual melody over ostinato) (perhaps writing-aided pentatonic improv.); [also, perhaps: double ostinato, melody, and *nemesis* form-- e.g. AGK: Omahimee]; invited writings.

[ 3 ] **More Detail in STACKS, HARMONY, NON-HARMONIC TONES**

(OK if this fills many rehearsal times)


**Listening:** discuss endless options (Renaissance for clarity: Monteverdi: 4th Book examples; Alonso Lobo: Versa est... ; ANY European common practice music; 95% of all domestic pop music in all styles and genres)

**Exercise:** Melodies given [esp. pentatonic, different modes]-- all, unison melody, [p]-dynamics, except: take turns improvising harmony. Listen to these soon!

**Theory:** *Harmonic rhythm / *Harmonic progression / *passacaglia / *chaconne // *ground / *functional bass line (difference from mere ostinato). Review *viscosity: apply to self-orchestration, busyness and noodling.

**Listening / Exercises:** 12-bar blues; various B.B. King, James Brown; Purcell: Dido's Lament; various Fake book samples; ground and foreground in Pachelbel's canon (*canon [briefly]!); previous exercises.

**Theory:** Melody and *changes // structure of **"the head" / *D.C.-- da capo; Schoenberg "the structural function of harmony"; harmonic *progression; *harmonic tempo; *harmonic rhythm; compare with *through-composed form. Examples from: Baroque solo and continuo with *figured bass; analogy to jazz tune and *changes // Fake book (*"Real book" format); cf. Beethoven, *sonata-allegro form, Heinrich *Schenker theory / Schoenberg title "The Structural Function of Harmony"


**Listening / Exercises**: various Fake book / *jazz standard. Invite melody & changes
writings. >>>>> consider need for stack spellings...

[ 4 ] **More Detail in RHYTHM DIMENSIONS** *(many classes)*

**Theory**: Generalize *consonance / dissonance (?/stress / *release *) to any
dimension [[friction necessary for motion, momentum-> keeping music moving]]. Materials
of stress and release and *balance (*Kente quilt*) in Rhythm dimension: *pulse, *beat (as
quilt pattern or component, and as akin to pulse), *meter, *polyrhythm, *hemiola, *rhythm,
grove redux *polyrhythm *"apart-listening"; *rest and *compound rhythm; *rhythmic
counterpoint; *cutting; *unison for contrast; *break (internal or *coda); different loop
lengths in simple ratio proportion or leading to emergent complexity.

**Listening**: various Chernoff; Yoruban drumming; Fela Kuti; Afro-cuban; Regina Carter
Sticks and Stones 1 & 2; exercises from *Loops unit: AGK: KOLA NUT Dances

**Exercises**: Participant writings. Then: strictly hand-percussion! (bring instruments);
Belmont write and play challenge game; 3:2 and 2:3 *Son and *Rumba *Clave; *Bembe
patterns; agogo or fas.; guiño +/-; etc... Samba *break pattern, whistle calls. Later: 1-*non-
traditional sounds from instrument: focus: percussive sounds→ non-functional-pitch rhythm
groove "comping" ! Also: experiment with diff. loop lengths at same time.

**Theory**: Beyond common pulse: beat dissonance; asynchrony with return (enhanced
independence of voices); asynchrony overlaps neighbor beat, or **"phasing" [Reich phase
music]-- cf. visual *Moire effect >>>>> (prop: bring array!!); tape loops and mechanical
methods.

**Listening**: Steve Reich: various phase and tape loop music; HCO cd ṭK [[13-15]]

**Exercises**: phasing examples
Welcome / encourage writings throughout!


**Theory**: *Dimension of amplitude = *Dynamics!! [label, explore in depth];
Dimension of **"timbre" [even, within one player's part: build on each individual's collection
of traditional and 'non-traditional' sound production techniques]; Dimension of *"voicing" /
"orchestration", incl *texture; *Rest = measured silence; more about silence: duration,
presence, absence, figure/ground exploration?, melodic profile made more vivid and distinct
with rests, transparency gained from more rests esp. in loops; power of "Grand pause",
structural roles of silence; *activation/*viscosity redux; *length/*articulation redux
[prominent long *legato lines vs. blurred *pointilistic atmosphere--(cf. *Alberi bass) ]).

**Listening**: live examples; late Mozart symphonies (e.g. "Jupiter", #41, mt. IV)

**Exercises**: continue, refine previous.

[ 6 ] **SOME COMMON TYPES of LARGE SCALE STRUCTURES**

**Theory**: *call-and-response / analogy with architectural * chiaroscuro, columns, *solid
and cavity; extend to *Rondeau, then any recurring *episode-and-refrain structure; *A-B-A /
*tertiary; [pop-]*song forms; *Recitativ / *flow-and-benchmark; *Sonata-allegro redux (a
sort of explode-and-reassemble); the inverse: *coalesce and dissolve; --or either coalesce or
dissolve alone, or combinations, or **"evolutionary forms" in general; different patchworks, constructions, agglomerations, what-have-you of whatever sections and building blocks you choose [[!! whatever you choose, but be able to choose, and to communicate these choices with your collaborators!! ]]  

**Listening:** Any listening is fair game now! But esp. for "evolutionary" incl. Sibelius and Fela Kuti and compare (ea. other, and at large vs. medium scale)!! Also: current exercises, and maybe contrast with earlier meetings' exercises.  

**Exercises:** Writings from earlier meetings. Practice and apply current structure concepts in turn by creating together. Invite writings again. [Be sure to include strong timbral and rhythmic and dynamic dimension forces in large-scale structure development--not only harmony dimension dominance!!-- constantly remind, push, encourage in those directions... ] [maybe listen again to HCO: BK track [[4]] as multi-dimensional example]

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**[ 7 ] BRIEF INTRO. TO POST-TONAL PITCH and PITCH WITHOUT CENTER**  
**Theory:** *tonality,* *centricity,* *poly-tonal ["poly-centric"]*, *non-centric,* *atonal,* *pantonal,* *clockface octave,* *tone row / series,* *aggregate,* *aggregate cycling,* *serial [pitch] techniques // *twelve-tone* music. Notice analogy between Western 'classical' and Jazz historical trajectories through tonality and beyond. *Whole-tone scale and *tritone shortcuts!  

**Listening:** Ives, Schoenberg, Berg, BarTalk Violin Duo, Miles Davis  
**Exercises:** Row &/or writing-assisted aggregate cycling; &/or shortcuts

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**[ 8 ] FREE JAZZ, TOTAL SERIALISM, TOTAL/FREE IMPROVISATION**  
**Theory:** consider balance of previous topics and the spectrum of improv with more or fewer elements fixed; Extend anarchy from pitch to all dimensions! [Miles Davis paraphrase: "Q: how do you keep finding such great ideas? A: Easy: I just listen to what everyone else is doing, and do something different." :-) {and remember that if everyone else is playing, one thing different is to be silent}] in general: orchestrate yourself!  

-- also: *samples;* *sound effects;* ""musique concrete"; *bimusicology;* *scratch;* *acoustic soundscape* *ecomusicology,* *DJ as performer*  

**Listening:** Webern; Babbitt; (Boulez); [? select Pink Floyd trax?]; [AGK: FX mix !]  
**Exercises:** :-) (I should say ??)

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**[ 9 ] MUSICAL NEGOTIATION, PLANNING, AGREEMENT**  
**Theory:** As determined. :-{ } (cf. Oberlin str. qt. required text *Getting to Yes,* comments re: OSCA Consensus; wordless live time analogy to bidding in bridge; value of common background &/or common language)  

**Listening:** More to each other.  
**Exercises:** Now collaborators have to talk, communicate, plan, and execute exercises.... And keep going during the music when things work out differently than you expect!! Include pre-agreed audible cues for moving to new sections; and/or visual cues.
[ 10 ] ABSOLUTE vs. PROGRAM MUSIC, ACCOMPANIMENT
and BORROWED STRUCTURE

Theory: *absolute music; *program music; *Civic Music; *leit-motif / themes or other distinct dimensional events for characters, objects, ideas, feelings... Examples: concert, worship, wedding, birthday, celebration, ceremony, sporting events, national anthem &c., poetry, song, metrical hymnody, ballet, dance genres, opera, musical theater, drama, puppet show, silent film acc’t (discuss: "silent" film never silent!) (incl. foreign sub-title option?), movie music....

Listening: brief discussion better-- we all have examples.... maybe Toru Takemitsu, HCO CD "BK", if necessary...

Exercises (repeatable): video accompaniment (try for comedy short and a brief melodrama); bring dancers for music-dance co-improvisation; join theater rehearsal to provide mood and incidental music.

OUTRO: We won't learn everything-- we can't learn everything!!-- about music, nor even the topics listed here! Don't worry if you can't read or understand much of this outline. It's only an outline, just a list of topics, and we don't need to cover it all or cover it deeply. Most important for us is that we do cover the territory evenly, and have at least some words and musical ideas to describe our sounds in all the different dimensions that music occupies. This outline just reminds us of the general areas of constructing strategy or dimensions of music we want to explore.

I'm really looking forward to our travels together through theory and sounding out!

Thanks for your time and attention and exercise for our improvisations!

-- A. Gabriel Kastelle
[last revised Nov. 2012]
~ APPENDIX TWO ~

Gabriel's KAIROS FOR ALL tunebook
Thanks for singing!

Gabriel's KAIROS FOR ALL
tunebook

a tunebook of modal integrity for singers of the hollow square
KAIROS FOR ALL

The wind blows where it wills, and you hear the sound of it, but you do not know whence it comes or whither it goes; so it is with every one who is born of the Spirit. —Jn. 3:8

Listen: there was once a king sitting on his throne. Around him stood great and wonderfully beautiful columns ornamented with ivory, bearing banners of the king with great honor. Then it pleased the king to raise a small feather from the ground and he commanded it to fly. The feather flew, not because of anything in itself, but because the air bore it along. Thus am I — a feather on the breath of God. —Hildegard von Bingen (from the Selvies?— unsourced in CD liner notes)
[page four in the tunebook was blank, giving the opportunity to add these notes about Gabriel's KAIROS FOR ALL tunebook as an appendix.

Page one given here was the front cover design. Pages two and three given did follow in that order, but also with intervening blank pages. From page five onward—that is, for all of the music—Appendix Two page numbers match KFA tunebook page numbers, and those numbers may be used interchangeably in finding music referred to elsewhere in this text.

After the tunebook's final page forty, I add here the two pages of the program from the thesis recital singing event, which was given out as a single letter size sheet printed on front and back, along with a copy of the tunebook, to everyone who attended the recital, February 27, 2014, at Wesleyan University. Estimates of total attendance range from 80 to 95 or 100 people. Travelers joined us from as far as Brooklyn, Boston MA area, New Hampshire, even Washington State—my parents! :-) Yes, of course, there was dinner on the grounds! It was lovely!

In reading the music, recall that in shape note tradition, typically the most main melody is found in the "Lead" or "Tenor" staff, the one immediately above the bass. Pitches written there are understood to be mostly 8ve basso, but also sung at pitch by high women's voices, as the Lead part is traditionally occupied by a mixture of mostly men and also many women. A couple of my tunes are germinated from and organized around the Alto line as most main melody [p. 11 ABERDEEN and p. 7 MT. ZION (Third)]. Also, I am looser about keeping primary melodic interest in single voices when writing within the larger forms, viz. anthem, anthologem, larger set pieces.

After details too fine and too coarse, this appendix is just right: music! Enjoy!

—AGK]]
Appendix Two and Gabriel's KAIROS FOR ALL tunebook page number 5
SOJOURNER. C.M.

"John Mason's Songs and Periennial Hymns are...
very Pleasing to the Indians." —Samson Occom, 1771.

F minor

John Mason (fl. 1670's) (v. 1, 2, 9, 10 as publ. by Occom, 1774)

Allen Gabriel Kastelle. 2010-14.

1. I SO-JOURN in a Vale of Tears, A-has, how can I sing? My Harp doth

2. My Musick is a Captive’s Chains; Harsh Sounds my Ear do fill; How shall I

3. I have a God that changeth not. Why should I be perplexed? My God that

on the Willows hang, Disturb’d in every String.

sing sweet Zion’s Song, On this side Zion’s Hill?

owns me in this World Will own me in the next.

4. My dearest Friends they dwell above,
   Them will I go to see;
   And all my Friends in Christ below
   Will soon come after me.

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MOUNT ZION (THIRD).  S.M.

"Break forth together into singing, ye ruins of Jerusalem: for the LORD has comforted his people, he has redeemed Jerusalem."

— Isaiah 52:9

C Major  Isaac Watts, 1707.


1. How beauteous are their feet Who stand on Zion’s hill! Who bring salvation on their tongues & words of peace reveal!
2. The watchmen join their voice, & tuneful notes employ; Jerusalem breaks forth in songs, & deserts learn the joy.

1. How beauteous are their feet Who stand on Zion’s hill! Who bring salvation on their tongues & words of peace reveal!
2. The watchmen join their voice, & tuneful notes employ; Jerusalem breaks forth in songs, & deserts learn the joy.

Dedicated to the ALTOS who have the most MAIN MELODY here. © 2014 Allen Gabriel Kastelle. Thanks for singing!
DOOMSDAY. 6 lines 7's.
F-sharp minor, mostly...  "...and, lo, there was a great earthquake; and the sun became black...and the moon became as blood;..."  -- Rev. 5:12

1. Come to Judgment, come a-way,  (Hark! I hear the Angel say, Summoning the Dust to rise) "Haste, resume and lift your eyes:

2. Come to Judgment, come a-way!  This the last, the dreadful Day.  Sovereign Author, Judge of all, Dust o-bey thy quickening call;

3. Come to Judgment, come a-way! Lingering Man, no longer stay; Thee let Earth at length restore, Prisoner in her Womb no more;

4. Come to Judgment come away! Wide dispers'd how'er ye stray;

5. Come to Judgment come away; Help, O Christ! Thy work decay:

6. Burst the Barriers of the Tomb, Rise to meet (shine) instant Doom.

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DOOMSDAY, concluded.

"And the sea gave up the dead which were in it, and death and hell delivered up the dead which were in them..." —Rev. 20:13

4. Lost in Fire, or Air, or Main, Kindred Atoms meet again. Sequestred where'er ye rest, Mixt with Fish, or Bird, or Beast.

5. Man is out of order hurled, Parcell'd out to all the World; Lord, the Broken Concoat raise, And the Music shall be Praise.

"...and I heard the voices of harpers, harping with their harps: and they sung as it were a new song before the throne..." —Rev. 14:2-3

5. Lord, the broken Concert raise, And the Music shall be Praise.
Appendix Two and Gabriel's KAIROS FOR ALL tunebook page number 10
ABERDEEN. C.M.

E flat major

Isaac Watts, 1707, 1719.

"In the beginning was the Word... and the Word was God." — John 1:1
"...for ye are the temple of the living God." — 2 Cor 6:16


1. Our life contains a thousand springs, And dies if one be gone; Strange,
   But 'tis our God supports our frame, The God that built us first; Sal-
   The Lord will raise Jerusalem And stand in glory there; Na-
   Her dust and ruins that remain Are precious to our eyes;

   another alto-rein-melody tune! this one has been dedicated since 1999 to Mom and Dad, still living near Aberdeen (WA)! :)

2. A harp of thousand strings should keep in tune so long!
   A nation to the Almighty name That saved us from the dust.
   Kings shall bow before his name, And kings attend with fear:
   Ruins shall be built again, And all that dust shall rise.

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SANCTUARY. L.M.D.

F major / d minor

“If it be so, our God whom we serve is able to deliver us from the burning fiery furnace, and he will deliver us out of thine hand, O king.” -Dan. 3:17 Allen Gabriel Kastelle, 2000

1. What if the wind do howl without, And turn the creaking weathervane; What if the arrows

2. What boots it, that thou standst alone, And laughest in the battle’s face When all the weak have

3. Right arms and armors, too, that man Who will not compromise with wrong; Though single, he must

“But if not, be it known unto thee, O king, that we will not serve thy gods, nor worship the golden image that thou hast set up.” -Dan. 3:18

1. of the rain Do beat against the window-pane? Art thou not arm’d strong and fast Against the salutes

2. fled the place And let their feet and fears keep pace? Thou wast still thine ensign high, And shoutest thy loud

3. front the throng, And wage the battle hard and long. Miseries, since time begain, Have shown the better

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SANCTUARY, concl.

1. of the blast? Art thou not shelter'd safe and well Against the flood's insistent swell?

2. but - tle - cry; Higher than e'er the tempest roar'd, It cleaves the silence like a sword.

3. side of man; And of ten in the lists of Time One man has made a cause sublime!

Dedicated to Robert "Clean" Washington and Angelo Minifie, with whom I was sitting on the floor in the 18th/19th Police District station in West Philly, one ugly three in the morning when I began work on this tune ( -> the clever palindrome "bookend" bit!).
Appendix Two and Gabriel's KAIROS FOR ALL tunebook page number 14

NAMES OF GOD.  P.M.

compiled 2012, AGK.

SAY: The name of Allah or call on the Beneficent. He is the last name. And pray neither too loud a voice nor in silence, but between these two extremes: Seek a middle way... --Qur'an 17:110

"For thou hast made him a little lower than the angels, and hast crowned him with glory and honor." --Ps. 8:6

In later years, Ramakrishna was to take the husking-machine as one of the many homely illustrations he used in his teaching:

"How are you to live in the world and yet be mindful of God? Take an example from the housewife. She's busy in so many ways at once! With one hand she pushes the paddy into the manger of the husking-machine, with the other she stokes her child; and meantime she's bargaining with a neighbor. But all the time, her mind is fixed on the single idea: not to let the hammer of the husking-machine fall on her hand and bruise it. So, no matter what your worldly duties are, keep your mind fixed on Him." --Vedanta Press, 1965.

Ru-ach Chai, Ru-ach Chai, Yah-weh, Yah-weh, Elo-him;

"When you recite subhanallah (glory be to God) one time the angels, archangels, prophets, and illuminated beings (chis) join with you and say it a thousand times or ten thousand times. They praise Allah for you. When you recite in a melting way you stand at the throne in front and they stand behind you, repeating the praise to Allah for you.... For saying subhanallah just one time you will receive ten million or one hundred million benefits. So many of them follow you and repeat that praise: Allah prays you with their limitless number of voices. When you say subhanallah, Allah prays you with His limitless number of voices of plenty."

--M. R. Bawa Muhaiyaddeen (R.); March 19, 1961,

quoted in opening of handbook for morning Dikshu a Remembrance (of the names of God), Mosque of Shaikh Bawa Muhaiyaddeen (1996)

Ru-ach Chai, Ru-ach Chai, Je-sus, Je-sus, Elo-him

"I hear the Vedas read that Lord Krishna is personally dancing on your tongue when you chant His holy name."

--Mahatma Dasa, in Bhakti-Yoga at Home, reprint of ISKCON / Bhaktivedanta Book Trust booklets, e.g. bhakti-yoga (2004)

This piece could be practiced as a Yoko Ono / John Cage style improvisation:

Instructions are: Try singing this anytime, anywhere, whenever you feel space for it and it occurs to you.

Repeat. Actively make sound, but not loudly (Qur'an 17:110). Consider the other advice gathered here.

Upon meeting, if space changes, and you need to converse, try to finish first a full time around the tune and words...

Enjoy! Thanks for singing! --AGK

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Wondrous Wine, S.M.

1. A wondrous wine there is, soon can with it compost. Crow -
2. It is the wine of Love. That pre - di - vin. When,
3. It is the cor - di - al tree. Lord, cheer me with it still.

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Appendix Two and Gabriel's KAIROS FOR ALL tunebook page number 15
MARTYRS. C.M.

"Your fathers, where are they? And the prophets, do they live forever?" —Zech. 1:5

E Dorian


1. Must friends & kindred droop & die, And help-ers be withdrawn? While sorrow with a weeping eye Counts up our comforts gone?

2. Be Thou our com-fort mighty God! Our help-er and our friend; Nor leave us in this dang-rous road, Till all our trials end.

3. O may our feet pursue the way Our pi-ous fa-thers led! With love and ho-ly zeal o- bey, The coun-sels of the dead.

4. Let us be wean'd from all below, Let hope our grief ex-pel, While death in-vites our souls to go Where our best kindred dwell.

Lead melody 1600's traditional, in 1698 Bay Psalm Book and other sources, both sides of Atlantic; All other parts and setting AGKastelle, 1997.
G major

"Virtue" by George Herbert, 1633.

PEPO. P.M.
to Modena, in memoriam Pepo


1. Sweet day, so cool, so calm, so bright. The bridal of the earth and sky. The

2. Sweet spring full of sweet days and roses. A box where sweets compacted lie. My

3. Sweet rose whose hue angry and brave Bids the rash gazers wipe his eye. Thy

4. Only a sweet and virtuous soul. Like seasoned timber never gives. But

1. Dew shall weep thy fall to-night; For thou must die. thou must die.

2. Music shows ye have your close. And all must die. all must die.

3. Root is ever in its grave. And thou must die. thou must die.

4. Though the whole world turn to coal, Then chiefly lives. chiefly lives.

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FALLING SNOW. P.M.

E minor

"...The earth shall soon dissolve like snow; The sun forbear to shine..." --John Newton, 1779


**VOICING GUIDE:** Trebles and some Tenor/Leads (lightly, like snow!) sing top staff a) for the shapes and b) for the words. Altos and more Tenor/Leads: sing the shapes, line c), for both shapes and words!, at octave, in bass register. Basses: also sing shapes for shapes AND words; line d) is for the deeper amongst the basses; others may choose line c).

Text b) is from the adaptation by Alma Sanchez-Eppler of Tang Xiannu's 1508 staple of Chinese theater *The Peony Pavillion*, as staged by Wesleyan Theater Department, Spring 2013. Music is by A. Gabriel Kastelle from his original music for the same production, arranged for hollow square 2014: another shapes trainer!

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Appendix Two and Gabriel's KAIROS FOR ALL tunebook page number 19

SWEET SOUL. P.M.

Green grass has covered this hollow tomb. New melodies drown out ancient songs.

"... reap the fruit of steadfast love; break up your fallow ground..." ~Hos. 10:12

Birds chirp along a blooming path. Life is fair when a sweet soul finds its other half.

Text is from Alma Sanchez-Eppler's adaptation of Tong Xianzhe's 1598 staple of Chinese theater The Peony Pavilion, as staged by Wesleyan Theater Department, Spring 2013. Music is by A. Gabriel Kastelle from his original music for the same production, arranged for hollow square 2014.
TOLERANCE, UNITY. An Anthologem text collection.
compiled by Allen Gabriel Kastle, 1999-2014. AG Kastle, music pending? insha'Allah!

"epigraph?"
"Surely those who believe, and those who are Jews, and the Christians, and the Sabians, whoever believes in Allah and the Last Day and does good, they have their reward with their Lord, and there is no fear for them, nor shall they grieve." --Qur'an 2:62

Have we not all one father? Has not God created us? --Mal. 2:10

"OUR Father who art in Heaven, hallowed be thy name. . . ." --Mt. 6:9

"Call on Allah or call on the Beneficent. By whatever name you call on Him, He has the best names. --Qur'an 17:110

"Allah is our Lord and your Lord. For us are our deeds; and for you your deeds. There is no contention between us and you." --Qur'an 42:15

". . . so vie with one another in virtuous deeds." --Qur'an 5:48

Be patterns, be examples in all countries, places, islands, nations, wherever you come, that your carriage and life may preach among all sorts of people, and to them. Then you will come to walk cheerfully over the world, answering that of God in everyone. . . ." --George Fox, Quaker founder, 1656 [[anti-colonialism! --& cf. John Woolman!]]

[[? & for Rom. 12:18--- "If it is possible, as much as it lies in you, live peaceably with all people."]

"post-script epigraphs? / intercalary epigraphs?"
"And if thy Lord had pleased, all those who are in the earth would have believed, all of them. Wilt thou then force men till they are believers? --Qur'an 10:99

"There is no compulsion in religion-- the right way is indeed clearly distinct from error." --Qur'an 2:256
TOMORROW, INSHA'LLAH. An Anthologem.

Variously A-flat major, F minor, and B-flat dorian.

Beginning with James 4:13-16


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TOMORROW, INSHA'LLAH, p. 2/7

and then van-ish-es. 

van-ish-es. 

life? You are a mist that floats for a while and then van-ish-es.

you ought to say, “If the Lord wills, we shall live & we shall do this or that.”

In stead, you ought to say, “If the Lord wills, we shall live & we shall do this or that.”

stead you ought to say, “If the Lord wills, if the Lord wills, this or that.” As it say. Lord wills, if the Lord wills,
Appendix Two and Gabriel's KAIROS FOR ALL tunebook page number 23
TOMORROW, INSHA'LLAH, p. 4/7

sha' - llah. Lord will - ing Do not boast a - bout to - morrow, for you do not know what a day may bring.

A H

for you do not know what a day may bring.

A H

what a day may bring In -

Qur'an 18:23-4

And say not of a - ny - thing: "I will do that to -

A H

And say not of a - ny - thing: "I will do that to -

In-sha' - llah

A H
Appendix Two and Gabriel's KAIROS FOR ALL tunebook page number 25
TOMORROW, INSHA'LLAH, p. 7/7

"Ask your Lord to make it clear to us.... If God wills, we...

"If any of you lack wisdom, let him ask of God... and it shall be given...." -Js 1:5

shall be right-ly guid-ed...

In-sha'-llah

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Appendix Two and Gabriel's KAIROS FOR ALL tunebook page number 28
LUDWIG. 7's.

John Fawcett (1740-1817), 1782.

"Then Samuel took a stone, ... and called the name of it Ebenezer, saying, 'Hitherto hath the Lord helped us.'" - 1 Sam. 7:12


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Smooth is the way to ease & calm de-light, And sloth choos-eth for her own:

in the fight.

First Tempo

he who craves the flow'r of life full-blown, Must struggle up in all his armor right! Must

First Tempo

life full-blown, Must struggle up in all his armor right! Must

But he who craves the flow'r of life full-blown, Must struggle up in all his armor right! Must

But he who craves the flow'r of life full-blown, Must struggle up in all his armor right! Must
ROCKS ASIDE  p. 3 / 4

ar-mor dight! What though the bur-den bear him sorely down And crush to dust the

ar-mor dight! What though the bur-den bear him sorely down And crush to dust the

ar-mor dight!

mountain of his pride, Oh, then, with strong heart let him still abide; For

mountain of his pride, Oh, then, with strong heart let him still abide; For
ROCKS ASIDE, concl.

Jesus said, “Take away the stone… if you would believe you would see the glory of God.” So they took away the stone. —Jn. 11:39-41

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BARES. C.M.

"...but let your yea be yea, and your nay, nay..." —Js. 5:12

G Mixolydian


1. Prune thou thy words, the thoughts control, That o'er thee swell & throng. They will condescend within thy soul & change to purpose strong.

2. But he who lets his feelings run In soft luxuriant flow, Strains when hard service must be done, And faints at ev'ry woe.

3. Faith's nearest deed more favour bear Than brightest transports, choicer prayers, Which bloom their hour and fade.

“It is worth noting that Wittgenstein once said that a serious and good philosophical work could be written that would consist entirely of jokes.” —Norman Malcolm, 1958

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Appendix Two and Gabriel's KAIROS FOR ALL tunebook page number 36
T'SHUVAH, TAWBAH, RETURN. An Anthologem text collection.


"Top epigraph?--

"If you turn to him with all your heart and with all your soul, to do what is true before him,
then he will turn to you and will not hide his face from you. --Tobit 13:6

"The Lord is slow to anger, and abounding in steadfast love, forgiving iniquity and transgression..."
--Num. 14:18

"Do you not love that Allah should forgive you? And Allah is forgiving, merciful." --Quran 24:22

"Submit yourselves therefore to God... Draw near to God and he will draw near to you." --Jn. 4:7-8

"Return to me, and I will return to you, says the Lord of hosts." --Mal. 3:7

"... and they knew that there was no refuge from Allah but in Him. Then He turned
to them in mercy that they might turn to Him. Surely Allah--
He is the Oft-returning to mercy, the Merciful." --Quran 9:118

AG Kastelle, music pending?, insha'Allah!
EMERALD. S.M.

"...I healed them, I bound them with cords of a man, with bands of love..."

---Hos. II: 3-4---

D Major
not too slow

vv. 1-2: John Fawcett, 1782.
v. 3: Isaac Watts, Psalm 133, 1719; alt.

Allen Gabriel Kastelle, 2011.

1. Bless'd be...the tie that binds Our...hearts in Christian love...The...fellowship of...kindred...minds is like to that...above.

2. We share each...other's woes...Our...mutual burdens bear...And...of...ten...for each...other...flows...The sympathizing tear.

3. Bless'd is...the precious house Where...zeal...&...friendship meet...Our...song of praise...our mingled vows...Make...communication sweet.

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another enigma dedication
ENCOURAGEMENT. S.M.

"Oh-- a Quaker tune!" --a member of Montclair MM, NYYM.

Isaac Watts, 1719. (Ps. 27, II).

Wait on the Lord; ye trembling saints, your courage up; He'll raise your spirit when it fants, And far exceed your hope.


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Sing Gabriel’s

*Kairos For All*

Tunebook!

group singing of
a new collection of tunes by Allen Gabriel Kastelle

Beckham Hall
Wesleyan University
Middletown, CT  USA

Thursday, February 27, 2014  7 pm

**Program**

the tunebook.

Really, the tunebook is the program, and I hope you hold it in your hand. A page number will be hollered, a starting pitch will be negotiated and shared, and we’ll sing. Or be with the singers and hear the singing. As you like.

THANKS so much for gathering on a cold winter night!

Your presence and voice and ears make this event-- I just get us all on the same page-- so thank you!!
How old-fashioned. Yet how early, for a near future! And ever, in between. Tunebooks are an interesting technology. Before widespread recordings and radio and all the electronical what-not that's followed, people were perhaps more active musically. When they wanted to hear music, they gathered and made the sound themselves. Arguably, the first mass popular culture of the United States was born in tunebooks. Their proliferation in the later 18th century and onwards has been incredible. I think they're still a great technology. And when the globe changes and systems fall and masses of people are on the move, sooner and nearer than we might think, simple durable portable un-powered technologies like the tunebook might come into their own again. I'm writing for these past and future times.

I feel the same way about modes-- simple diatonic modes, the kind you can find in just the white keys of a piano-- the kind which can be expressed in the shape notes! So old-fashioned. And yet, how ahead of their time. Timeless. Always. And now. Very rich vocabulary, actually. I hope I demonstrate that richness with my tunebook. So many moods, so many styles, yet strict "modal integrity" throughout-- not a single accidental, a single mis-step into the pitches in between. (I can explain the apparent variance)

One cluster of tunebook traditions has continued since the Revolutionary era to the present day in unbroken, continuous practice-- I mean the group singing of sacred word outside of worship as in the New England singing school tradition. Or the shape-note singing tradition. Or in "old harp" singing-- even, "Sacred Harp singing"-- references to tunebook titles, or a single most famous and enduring title, continuously in print and sounded by gathered people since 1844. It's hard to find a single term to encompass all the variety which has existed just within the "tradition"/traditions. Maybe "hollow square" musics?

More and more, and partly as a result of work on this project, I focus on the physical arrangement of singers in a room which has been widespread for at least most of a couple centuries, that is, the hollow square. Compositional, the instrument for which I'm writing music is the hollow square. I'm thinking of it all as hollow square music, hollow square traditions. The hollow square is an array of human bodies. Hollow in the middle so everyone can face a leader there, and each other. No particular place for a separate "audience". It's more than just a musical idea-- it's culture, traditions, architecture, religion, socializing, history, journeys, migrations. I love the whole messy complex of it all, and have been singing actively with Denson Book Sacred Harpers since 1995, and from their spread influence in wider culture, at first unbeknownst to me, ever since very early childhood.

Although there is a mixture of older and newer works in my tunebook, the collection is newly formatted and a thing of itself, striving for some range and balance of stations in our journeys, outer and inner. Making the collection and its ordering have been surprisingly full of perspectives and revelations about trends and strengths and omissions in my works. Very much more I would like to do and include. Lord willing, we may see expanded editions. Meanwhile, we have Gabriel's KAIROS FOR ALL tunebook, and we should sing! Thanks!!
References


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