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TEXT AND MELODY
IN MANSI SONGS

Robert Austerlitz

This paper is based on the entire available corpus of Mansi songs\textsuperscript{1} which, unfortunately, consists of only five items. These were collected in the U.S.S.R. and have been published by Béla Kálmán (1963, 1965). The songs will be referred to by the numbers 8, 9, 10, 11, and 31 which the texts bear in Kálmán. The 1963 and the 1965 editions both contain the Mansi versions of the texts; only the 1963 edition gives (German) translations of them. The melodies which correspond to the texts are given in both editions and bear, respectively, the numbers 2, 5, 3, 4, and 7.

While in Hungary in 1965 I received permission from the collector to hear his original tapes at leisure and to transcribe both the melodies and the texts for my own use. Grateful acknowledgment for such permission is herewith made. I wish also to thank Dr. Henriette F. Mésszáros (University of Budapest) for grammatical explanations of some of the more difficult passages in the texts. While this paper was being written I had occasion to hear Song 31 once more on a tape, acquired by Alan Lomax in the Soviet Union in 1965 for his Cantometrics Project (catalogued Mansi Song, No. 1711.16); the performer is the same as that of Kálmán’s version.

The Mansi (in the older terminology, Vogul) are a group of some 6,000 speakers of a Uralic (Finno-Ugric) language who live along the rivers Sosva and Konda (western affluents of the river Ob) in westernmost Siberia. They are in a state of rapid acculturation. For other ethnographic and linguistic data see Kálmán.

It might be asked why, if the melodies and texts are already available in print, I insist on transcribing them again. It has been my experience that songs collected by linguists are generally not published in a form faithful enough to the original performance to permit

\textsuperscript{1}The term song is here taken to mean the complex of both the verbal and the musical components and not the melody alone.

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a detailed musical or metrical analysis. The linguist, who is interested mainly in grammatical and lexical data, understandably normalizes the material which he has collected, but in so doing he often expunges precisely those features which are of interest to the musicologist or to the metrician. The linguist’s division of a metrical text into lines is generally intuitive (and as such, very interesting) but not based on any particular theoretical approach to meter or metrics. Furthermore, the linguist-collector generally obtains the assistance of a musicologist in transcribing the melodies. On the assumption that melodies in one culture are very much like melodies in another, the musicologist painstakingly gauges the pitch of the melody and transcribes it as accurately as he can, underlaying the text of the first few lines of verse to the first two or three phrases of the melody. The remainder of the text is generally not underlaid, presumably because text and melody are thought “somehow” to fit together “naturally.” In this way (1) a great amount of data is lost, (2) poetic devices, such as expletives (filler syllables, see Austerlitz 1958), and sometimes entire words are omitted, (3) entire lines of verse are reshuffled or substituted within the text, (4) many instances of repetition of words or of lines of verse and of musical phrases are omitted, and (5) we have no way of knowing exactly what syllable was originally sung to which note.

I believe such liberties should not be taken until we have developed more sophisticated methods for the analysis and description of songs. I would further urge all collectors to ensure that they publish their songs with maximum loyalty to the original, thereby presenting others who wish to work on them with sufficient and reliable data.

I have discussed one of Kálmán’s songs (Song 8) in another paper (1967). Here, I shall discuss the remaining four in detail and again concentrate on the question of the relation between the melodic structure and the textual structure of a song.

The following information applies to the materials presented below:

1. Whenever I refer to a line of text, it is in terms of my own segmentation of the text into lines of verse. These are set out in the columns marked RA.

2. For convenience I transpose the melodies so that they fall entirely within the table staff.² Meter signatures are used only when the metrical scheme is consistent. A raised comma above the staff

²In Kálmán’s publications Songs 9, 10, 11, and 31 end, respectively, on b-flat, c-sharp, d-sharp, and d in the one-line octave.
marks a *Luftpause* which was audible on the tape. The metronomic values entered at the head of each transcription are based on my own recollection and therefore should not be taken as accurate.

Certain tones in Song 9 are preceded by a falsetto grace-note pitched roughly a third or a fourth (as governed by the triad in question) higher than the tone itself.

They are marked by an S above the appropriate note.

3. Song 31 is in a southeastern dialect (Iukonda). All of the others are in the northern (Sosva) dialect.

4. The north-Mansi texts are transcribed phonologically (phonemically). The following indications of the phonetic values of the symbols employed are approximate:

The vowels aeiou have their "Continental" values. Before y, i is pronounced as in English milk (or Russian bl). The symbol ø stands for a mid-central vowel, such as a in English sofa; before m it is pronounced with slight lip-rounding. The macron (˘) as in ā indicates vowel length.

The acute accent over a consonant indicates that the consonant is palatalized (áíš); compare the initial consonants in British new/noon, lute/loot, tune/too, suit/soon. w is read as in English, j as in German, q as ng in English singing, x as j in Spanish; y is the voiced counterpart of x (and resembles the Parisian velar fricative r). ã stands for a lateral fricative similar to ll in Welsh (it is also found in native North-American languages); á is its palatalized counterpart.

In the Iukonda dialect (Song 31), õ roughly corresponds to long German ö, o to English oo in good, å to American English a as in all, å to a as in English man, š to English sh, š is palatalized š.

5. Some of the principles which govern the segmentation into musical phrases (and with which I shall deal below) were dictated by the syntactical units into which the text can be analyzed. The musical segmentation is carried further into motivic analysis. This was done in spite of the fact that those musical units which are comparable to textual segments are larger than the motif.
6. Word stress in the Mansi dialects with which we are concerned falls on the first vowel of the word. Generally, therefore, barring was dictated by word stress, that is, the first (and sometimes the third) beat in a 4-beat measure coincides with word stress. Song 11, which is anomalous in some other respects as well, presented some difficulties of barring. These were resolved by marking off measures of varying lengths.

In Song 9, there are eight instances in which long words carry six beats and thus extend beyond a single 4-beat measure. In the remainder of the corpus a single word never extends beyond the boundaries of one measure.

7. It may be of interest to note that of the 32 texts in Kálmán’s *Vogul Chrestomathy*, only 5 form our total corpus, 12 are in prose or mixed prose (e.g., riddles), 7 are modern verses by the native poet I. Šestalov, 7 are folkloristic verse for which no melodies are provided (reasons for omitting the melodies are not given), and 1 (Text No. 7, which corresponds to Melody No. 1) is a folkloristic text with music for which no tape-recording was available.

In Mansi culture verse is by nature a correlate of music; all poetry is always (or almost always) sung. (Concerning the importance of music in determining folkloristic genres, see Austerlitz 1961.)

**SONG 9** In the text as given below, there is no disagreement between Kálmán’s original segmentation into lines and mine. Since the distinction between verbal lines (those which contain a finite verb at the end and therefore conclude the sentence, see Austerlitz 1958) and nominal lines is essential, I have indented the verbal lines in both the original and in the translation. In this particular text more detailed grammatical data about the type of line are given in the first column to the right of the text, where

\[
\begin{align*}
N & = \text{nominal line} \\
\text{Act.} & = \text{verbal line with an active verb} \\
\text{Pass.} & = \text{verbal line with a passive verb} \\
\text{PP} & = \text{passive verbal line with the precative (supplicatory) suffix \\
\text{-kwe}} \\
\text{OjCj} & = \text{active verbal line in the objective conjugation (object ‘it’)} \\
dN & = \text{nominal line containing the diminutive suffix -kwe (for form \\
cf. PP above).}
\end{align*}
\]

In the analytical chart of each song the headings are abbreviated as

\[
\begin{align*}
\text{GS} & = \text{Grammatical Segment} \\
\text{MS} & = \text{Musical Segment} \\
\text{Sbl} & = \text{Syllables}
\end{align*}
\]
The text falls into stanza-like periods of unequal length, all of which end in a verbal line (lines 6, 11, 13, 17, 21). Within these “stanzas,” parallelism is the most obvious device. Even the English translation reveals that lines 2 and 3 are parallel (i.e., in this case, isomorphic except for the first word); lines 2 and 3 as a unit are then parallel with line 1. The two verbal lines, 5 and 6, are also parallel. Line 7, which opens the second “stanza,” is almost identical with line 1: the occurrence of a possessive suffix in 7 alone could prompt us to say that lines 1 and 7 are parallel. Parallel again are the verbal lines 8/10 and, to a less obvious extent, 9/11; 12/13; 16/17, and 20/21, as well as the nominal lines 14/15 and 18/19. Parallelism lends the entire text coherence and deserves much more attention than it usually receives from metricians. The precative suffix -kwe at the end of verbal lines 12/13 and 21/22 and the diminutive suffix -kwe (at the end of nominal lines 18/19) are identical in form. This is another kind of textual coherence which, in fact, resembles rhyme. (Rhyme is otherwise accidental in traditional native Siberian song-texts.)

We have arrived at the segmentation of the text by the internal formal evidence of parallelism dictated by the grammatical and semantic categories. That B. Kálmán arrived at the same segmentation bespeaks his acute intuition but does not mean that segmentation on formal and semantic grounds is useless or unnecessary.

The second column to the right of the text contains the melodic analysis arranged by units based on the textual segments. Reference to the song reveals that the melody has only two phrases:

\[ab\]  
\[\begin{array}{c}
\text{\scalebox{0.6}{\textcopyright}}
\end{array}\]  
\[\begin{array}{c}
\text{\scalebox{0.6}{\textcopyright}}
\end{array}\]

and \[cb\]  
\[\begin{array}{c}
\text{\scalebox{0.6}{\textcopyright}}
\end{array}\]  
\[\begin{array}{c}
\text{\scalebox{0.6}{\textcopyright}}
\end{array}\]

The second half of each phrase is the same; the first half-beats of each phrase differ only in the first two tones. The melodic distinctions between \(a\) and \(c\) may be summarized as follows:

<table>
<thead>
<tr>
<th></th>
<th>(a)</th>
<th>(c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The unique pitch</td>
<td>5th above the final</td>
<td>leading-tone</td>
</tr>
<tr>
<td>Compass of the first three tones</td>
<td>octave (5th above final to the 4th below)</td>
<td>fourth (final to 4th below)</td>
</tr>
<tr>
<td>Final</td>
<td>absent</td>
<td>present</td>
</tr>
</tbody>
</table>

41
1 xösloj pəwəl xara ŋol  N  ab  7  9
2 äyikvet jómne xara ŋol,  N  cb  8  10
3 piykwet jómne xara ŋol.  N  cb  7  9
4 tariy läyəl wojkan sējkem  N  ab  8  9
      ülikwe yōnišantanetêtê,  Act.  cb  9  10
      kāskwe yōnišantanetêtê.  Act.  cb  8  9
5 xösloj pəwəl xara ŋoltem  N  ab  8  9
6 akw pəl urtete jönxawê  Pass.  cb  8  9
7 soləŋ talxəp wörken jönxawê;  Pass.  cb  9  10
8 mōt pəl urtete jönxawê  Pass.  cb  8  9
9 sākwəŋ witpə witken ōwawe.  Pass.  cb  9  10
10 sōltə ōwantaweke,  PP  ab  7  9
11 sōltə jōnxantaweke.  PP  cb  7  9
12 jalpaŋ kol talxəp saw ŋulîtem  N  ab  9  10
13 jalpaŋ kol manjilpa saw ŋulîtem:  N  cb  10  10
14 sāwəl ta ēlantanetênoj,  OjCj  cb  9  10
15 sāwəl ta nāŋkantanetênoj.  OjCj  cb  9  10
16 āyit jómne lōx jásakwe  dN  ab  8  9
17 piykwet jómne lōx jásakwe  dN  cb  8  9
18 nīnaya tēlantaweke,  PP  cb  8  10
19 pumna at tēlantaweke.  PP  cb  8  10

\[= ca. 46 \text{ (Transposed a major 2nd higher)}\]

\[
\text{xösloj pəwəl xara ŋol, äyikvet jómne xara ŋol,}
\]

\[
\text{piykwet jómne xara ŋol, tariy läyəl wojkan sējkem}
\]

\[
\text{ülikwe yōnišantanetêtê, kāskwe yōnišantanetêtê,}
\]

\[
\text{xösloj pəwəl xara ŋoltem akw pəl urtete jönxawê,}
\]

\[
\text{soləŋ talxəp wörken jönxawê; mōt pəl urtete jönxawê}
\]

\[
\text{sākwəŋ witpə witken ōwawe, sōltə ōwantaweke,}
\]
Barren cape of the village of Khoslogh
a cape on which maidens have walked,
a cape on which youths have walked.

My sand, white as the feet of the crane
joy it has,
merriness it has.

My barren cape of the village of Khoslogh
it is surrounded on the one side,
it is surrounded by the sharp peaks of the forest;
it is surrounded on the other side
it is encircled by the pearly watery waters.

Truly [by water] it is encircled,
truly it is surrounded.

Many firs, holy-house peak-like
many firs, like holy houses:
many stand on it,
many can be seen there.

The path on which maidens have walked
the path on which youths have walked
no stalks grow on it,
no grass grows on it.
Clearly, \( a \) is an opening formula: it avoids the final and has an energetic fall of an octave. \( c \) is by contrast a closing formula: it stresses the final and replaces the octave with the more quiescent interval of a fourth.

The arrangement in sequence of the two phrases \( ab \) and \( cb \) in the song seems capricious and irreducible to a formula; but while there is no rigid correlation between nominal lines and \( ab \) or between verbal lines and \( cb \), the phrase \( cb \) always coincides with that verbal line which concludes a longer text segment, viz., lines 6, 11, 13, 17, and 21. (These longer textual segments are sentences; I have called them stanzas.) It is also clear that the segment \( ab \) never repeats itself, while the segment \( cb \) always repeats itself (except in line 13, where it immediately concludes a sentence). Therefore, we can say that there is some inner organization of the melody: (1) a single occurrence of \( ab \) (which is never tied to the end of a sentence) implies no repetition of \( ab \) but a sequence of \( cb \)'s after it; (2) all sentences begin with \( ab \) and end in \( cb \). This arrangement concords with the musical function of \( ab \) as an opening formula and of \( cb \) as a closing formula which can be repeated until the stanza is completed.

The last two columns on the right contain syllable-counts and notes-per-line counts which reveal only the trivial fact that since in this song some syllables (such as -wəl, ñöl, -ne) are sung on two legato tones, the number of syllables-per-line will generally be lower than the number of notes-per-line. If we subtract the former from the latter, keeping in mind the grammatical nature of the line (N = nominal, V = verbal), we emerge with the following remainders:

<table>
<thead>
<tr>
<th>line</th>
<th>remainder</th>
<th>line</th>
<th>remainder</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>N</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>N</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>N</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>V</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>V</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>N</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>V</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>V</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>V</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>V</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

It is difficult to say whether information of this kind (which could be considered an inverse index of coloratura) will reveal anything significant. At the moment, and until we have a larger corpus available, only speculations invite themselves, such as: (1) N-lines tend to be
sung to more legato notes (that is, have a higher index under “remainder”) at the beginning of the song-text than at its end. (2) In this particular song the “remainder” tends to stay constant over two, three, or four lines of verse.

**SONG 10**  The segmentation into lines is again identical in Kálmán’s (BK) and my (RA) versions. I have numbered the opening cry [haj?], which does not recur and which plays no role in the overall structure of the song, nil. Similarly, I have characterized this cry as R (rubato) in both the metrical and the melodic analysis.

In this song the musical structure is completely regular: the melody consists of three phrases (a, b, and c) of which the second is presented twice in the pattern abbc. This period occurs three times.

Given such a regular melodic structure, it is not surprising that the metrical structure can afford to suffer in regularity. Parallelism is minimal in this song: only lines 4 and 6 are strictly speaking parallel and only mildly so. The second stanza ends in a nominal line (line 8, literally “being place”). Line 10, which we also might expect to be verbal, is unclear. (It is remotely possible that “thou beautiful” is a complete sentence in poetry; my knowledge of Mansi syntax is insufficient to resolve this point.)

This melody lends itself to a number of analyses of which I have chosen one where A and B are each divided into two unequal parts (2 + 4 quarter notes), as shown below, where \( A = a + b \) and \( B = c + d \).

![Musical notation](image)

Segments \( b \) and \( d \) are similar in that both describe an arch (rise-and-fall); \( a \) and \( c \) are also similar in that \( c \) is completely stationary and \( a \) almost so. We thus emerge with a proportion \( a:b::c:d \) for \( A \). In \( B \), however, \( c \) has the role of anticipating the tonic (in \( C \)) and \( d \) has the role of connecting \( c \) with the tonic.

Interesting here is also the deployment of intervals. The interval between \( a \) and \( b \) is a minor third; within \( b \), a fourth; between \( c \) and \( d \), a perfect fourth; and within \( d \), a minor third. We emerge with the proportion m3:p4::p4:m3, i.e., a mirror image, which stands in contrast to the interlocking proportion \( a:b::c:d \) given above. The overall structure of the melody also has the form of a mirror-image: ABBC.
<table>
<thead>
<tr>
<th>BK</th>
<th>RA</th>
<th>GS</th>
<th>MS</th>
<th>Slbl</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>høj?</td>
<td>R</td>
<td>R</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td>numan šara takket</td>
<td>N</td>
<td>A</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>tōram sow tēy.</td>
<td>V</td>
<td>B</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>ama sim kem</td>
<td>N</td>
<td>B</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>noxa wōwite.</td>
<td>V</td>
<td>C</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>ama nomatanaŋama</td>
<td>N</td>
<td>A</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>noxa woratēyat</td>
<td>V</td>
<td>B</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>tawa karas</td>
<td>N</td>
<td>B</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>ōlne kanen.</td>
<td>N</td>
<td>C</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>tōram sow xoát</td>
<td>N</td>
<td>A</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>nāja xuriŋ.</td>
<td>?N</td>
<td>B</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>nāja jote ōlne nomt</td>
<td>N</td>
<td>B</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>12</td>
<td>simam dūši.</td>
<td>V</td>
<td>C</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

\[= 126 - 132 \) (Transposed a minor 3rd higher)
Above, all alone
glistens a star.
My heart
it entices upward.
My thoughts
aspire upward
[to] its lofty
living place.
Like a star
you are beautiful.
The thought which lives with you
my heart has.
It should be noted that the analysis presented here leaves word boundaries completely out of account.

The economy of syllables-per-line versus notes-per-line is interesting. If we again subtract the former from the latter and plot the resulting remainders as

we observe that there is a sharp drop in the value of the remainder at the end of each stanza (i.e., on phrase C). In other words, in the last line of each stanza each syllable corresponds to one note. Again, it is impossible to say at this point whether this is a trivial coincidence or whether it has some deeper significance (perhaps connected with genre).

SONG 11  This is the most complex and the most interesting of our samples and rhythmically, the most irregular. The melody consists of two phrases, A and B, of which A may repeat itself and B may not. (I have departed from the practice followed above and have assigned A to one measure and B to two measures.) Phrase B seems to stand at the point where sentences end (lines 3, 6, 12, and 15) and thus to conclude stanzas, but line 9 is an exception here (I have marked it with an asterisk).

Here again we shall segment A into two parts, a and a', viz.
The total compass of the melody is two fourths: one upward and one downward from the opening tone.

The underlying grammatical structure is less complex. All stanzas end in a verbal line (H = hortatory, P = prohibitive; both H and P are sub-types of verbal lines) and all stanzas with the exception of the second (lines 4–7) begin with a nominal line. The second stanza consists exclusively of hortatory lines. This being the case, the overall tendency seems to be that stanzas begin with nominal lines and with melodic phrase A and end in verbal lines and melodic phrase B. Line 9 seems to be a vivid exception which is also borne out rhythmically: the eleventh bar in the melody which corresponds to line 9 is the only bar which consists of two lone quarter-notes. Could this represent an omission or an error?

This song is the only one of the corpus whose genre is clearly defined. It is identified as an oath by Kálmán and by its content. The formal organization of the text itself is marked by nominal parallelism in lines 1/2 (all four nouns are instrumentals in -ől) and 10/11 (which read literally “girls-mine, boys-mine/beasts-mine, fish-mine”), by verbal-suffixal parallelism in lines 9/12, and by the series of hortatories in lines 4 to 7. Only lines 13 and 14 are not strictly speaking parallel with any other line in the text, a fact which increases their contextual value.

My segmentation into lines differs radically from Kálmán’s.

The difference between syllables-per-line and notes-per-line in this particular text (and perhaps genre?) is minimal, in 12 out of 15 cases, nil.

Both the form and the content of this song suggest that it is very old. The genre suggests that we may be dealing with a religious or formulaic text and therefore with one which is subject to stronger traditional and societal constraints than our other samples. It may therefore be of interest to note confirmation of this from the point of view of vocabulary: with the possible exception of the word tülmax in line 14, the text contains no loanwords or foreign words. The irregularity noted in line 9 may thus be an instance of simple historical erosion.
<table>
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<th>MS</th>
<th>Slbl</th>
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<td>9</td>
<td>P</td>
<td>A*</td>
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<td>N</td>
<td>A</td>
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<td>4</td>
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<tr>
<td>14</td>
<td>15</td>
<td>V</td>
<td>B</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

$=ca.160$ (Transposed a minor 2nd higher)
1 By the heavens, by the earth
2 by water, by fire
3 I swear.

4 May the heavens strike me,
5 may the earth devour me,
6 may I perish in water.

7 May I be consumed by fire;
8 the shining sun
9 may I not behold.

10 My children,
11 my beasts
12 may I never see again.

13 In this matter I
14 if a devious thought
15 have.
<table>
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<th>MS</th>
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<tr>
<td>9</td>
<td>8</td>
<td>V</td>
<td>d</td>
<td>2</td>
<td>2</td>
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</tbody>
</table>

J = 92 (Transposed a minor 7th higher)

Rubato

Tempo

52
Through many forests
I stalk;
through many swamps
I go;
on the big lake's shore
I trample;
through the wide river
I wade;
on the big lake's shore
I trample;
through the wide river
I wade.

Searching for the forest beasts
I stalk;
pursuing the forest-zibeline
I run;
the beast with the arrow
I kill;
the zibeline with the poplar [-trap]
I ensnare;
the beast with the arrow
I kill;
the zibeline with the poplar [-trap]
I ensnare;

Rubato

Tempo
SONG 31 This is the only one of the five songs which is from a southern dialect area (Iukonda); the other four are in the northern (Sosva) dialect. This may perhaps account for the fact that this item is much more regular in all its aspects than the preceding ones.

The song falls into two halves, each of which is introduced by a rubato segment. Each half then neatly falls into three regular stanzas of which the second and the third are identical (i.e., lines 5–8 = 9–12 and 17–20 = 21–24).

Nominal and verbal lines alternate with monotonous regularity. All the verbal lines are in the first person singular and thus parallel; the nominal lines 1/3 and 13/15 (and, from the point of view of meaning, 5/7 and 17/19) are also parallel.

The first three segments of this pentatonic melody are all in a downward movement but, interestingly enough, a movement which increases in abruptness:

<table>
<thead>
<tr>
<th>Incipit</th>
<th>a</th>
<th>b</th>
<th>c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compass</td>
<td>major second</td>
<td>fifth</td>
<td></td>
</tr>
<tr>
<td>Final</td>
<td>absent</td>
<td>present</td>
<td>absent</td>
</tr>
<tr>
<td>General</td>
<td>scalar descent</td>
<td>abrupt non-scalar</td>
<td></td>
</tr>
</tbody>
</table>

The melodic sequence $abcd (= ab + cd)$ is regularly repeated six times.

Every single syllable is sung to one single note throughout, except in the second line of each stanza (always a verbal line), where a two-note ligature regularly appears. To emphasize this regular recurrence, I have italicized the verbs in the English translation (lines 2, 6, 10; 14; 18, 22). I found it difficult to determine whether $xâj$ in $xâjtâm$ (line 16) was sung to two quarter-notes or to one half-note. If it is sung to one half-note, then the song-text contains a highly regular correspondence between (1) every other verbal line and (2) a two-note ligature.

Note also that the word $nòxâsmâ$ follows the rhythmical pattern $\text{♩♩}$ in line 19 but the pattern $\text{♩ ♩}$ in line 23.

My own segmentation into lines is essentially identical with that of the collector. The apparent differences reside in the following: (1) I do not count the two rubato lines as integral lines of the song. (2) I count the repetition of the second and the fifth stanzas and incorporate the count into the overall picture. (3) I distinguish between nominal and verbal lines and count them separately.
**SONG 8** The original of Song 8 is discussed in greater detail elsewhere. I will here provide only an English translation and, alongside this translation, give indications which refer to the original so as to make the information about this song-text commensurate with that on Songs 9, 10, 11, and 31.

<table>
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<th>Sbl</th>
<th>Notes</th>
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</thead>
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<tr>
<td>1</td>
<td>1</td>
<td>Forty girls from Mesigh-Pawel,</td>
<td>AB</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>forty girls eating frozen fat,</td>
<td>CD</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>forty girls eating molten fat.</td>
<td>CD</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>We girls walk about,</td>
<td>AB</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>we girls sing.</td>
<td>CD</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>Girls clad in masterfully cut furs,</td>
<td>AB</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td>forty girls in decorated boots</td>
<td>CD</td>
<td>9</td>
</tr>
<tr>
<td>(4/9)</td>
<td>8</td>
<td>[thus] we girls live,</td>
<td>CD</td>
<td>9</td>
</tr>
<tr>
<td>(10)</td>
<td>9</td>
<td>we girls know [how to live].</td>
<td>CD</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>Girls stitching with the masterful stitch,</td>
<td>AB</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>thus we live,</td>
<td>CD</td>
<td>9</td>
</tr>
<tr>
<td>(9/5)</td>
<td>12</td>
<td>thus we sing.</td>
<td>CD</td>
<td>9</td>
</tr>
<tr>
<td>11</td>
<td>13</td>
<td>To those traveling upstream</td>
<td>AB</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>14</td>
<td>[we are] a canoe obstacle,</td>
<td>CD</td>
<td>8</td>
</tr>
<tr>
<td>13</td>
<td>15</td>
<td>to those traveling on the road</td>
<td>CD</td>
<td>9</td>
</tr>
<tr>
<td>14</td>
<td>16</td>
<td>[we are] a sled obstacle;</td>
<td>CD</td>
<td>9</td>
</tr>
</tbody>
</table>

There is a certain degree of disagreement as to the textual content of the song as published by the collector and as heard by me. The version given above has been checked and approved by the collector. (The discrepancy is mirrored in the lines of verse, as indicated in the two columns to the left of the translation.) The repartition of verbal and nominal lines should be evident from the translation. The division of the song into three stanzas is motivated, as in the other songs, by the deployment of verbal and nominal lines as well as by the melodic structure of the song. However, an additional factor, breathing places, was also taken into account here: they appear at the end of lines 3, 5, 9, and 12.

The melodic structure of this song is reminiscent of that of Song 9: the phrase $AB$ can never repeat itself whereas $CD$ necessarily repeats itself (except in line 5). It is also $CD$ which coincides with the last line of each stanza—always a verbal line—except in the case of line 3. (To make our case stronger, we could say that lines 1 to 3 are introductory or that they correspond to the function of a title.)
With the exception of the first line, the number of notes-per-line is one more than the number of syllables-per-line throughout.

The textual component of a song-text can be grammatically analyzed into sentences. Generally, such sentences are not of equal length or of identical structure within one and the same text, so that designating them stanzas calls for caution. The sentences may be further segmented into lines mainly on the basis of parallelism and other metrical devices involving partial repetition.

The musical component consists of melodic segments, generally of equal length, which combine to form larger units (musical phrases) of the types ABCB, ABBC, AAB, ABCD (where one letter stands for one segment). Certain restrictions in the occurrence or in the repetition of given segments have been noted.

More instances than can be ascribed to chance seem to indicate that certain musical phrases favor co-occurrence with lines of text which are marked by a given grammatical feature (e.g., verbal lines or nominal lines that follow the end of a sentence). The constraints which the lines of text and the musical phrases mutually impose on each other and the fact that the segments which participate in the formation of the musical phrases are very few (no more than four), together give each song-text its particular individuality. Perhaps also relevant in this connection is the relation between the number of musical impulses (notes-per-line) and the number of syllables characteristic of each text.

It seems futile at this point, at least, to pose the question of the priority of music versus that of the text. A meaningful answer to this question depends on having accurate information about the repertory of melodies and the thesaurus of texts in the culture. We must know whether one and the same melody can be sung to a number of texts, whether one and the same text can be sung to a number of melodies, or whether each individual text is bound to one single melody. This information is not available for the Mansi song; the question must remain moot. It seems to me that neither text nor melody has priority.

Another question which needs to be answered before we can go any further is that of genre: Exactly how many genres are there in the culture and what are the social, artistic, or other dimensions against which they are plotted? In what relation do the genres stand to each other and how are they interpreted and evaluated in the culture? Once we have concrete answers to all of these questions, we may begin to search for the structural-artistic characteristics within
each genre. It is only then that the full significance of those instances of the interdependence of melody and text, for which I have proposed a discovery procedure here, will reveal itself.

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AUSTERLITZ, ROBERT


KÁLMÁN, BÉLA


Aesthetics as a branch of philosophy deals with beauty in art; aesthetics as a branch of criticism deals with value in art. Although the axiological approach originally developed out of a reaction against traditional metaphysics of beauty, both disciplines recently have tended to amalgamate principles and techniques of inquiry. Philosophies of beauty attempt to found speculative concepts on the specific procedure of descriptive analysis or linguistic logic. Critical analyses formulate concepts of value in order to bestow universal significance on their concrete methodology. In general, 20th-century aesthetics rests on the postulate that art is meaningful and is thus encompassed by a vital contemporary concern with semantics, or the meaning of meaning. In this context art is seen as a kind of symbol together with language, myth, religion, philosophy, and other forms of human expression. The question inevitably arises as to what art means or symbolizes, and how this meaningful or symbolic projection is accomplished.

Turning to aesthetics of music as an individual area in this wider field, we observe a peculiar blend of current and outmoded ideas. Whether philosophical or analytical in orientation, this discipline stands within the pale of a long-established tradition that strives to deal with musical significance in terms of the emotional symbolism present in the aesthetic situation. This tacit acceptance of a concept of marginal relevance both to contemporary composition and, more important, to music as a universal phenomenon, relegates aesthetics of music to the peripheries of philosophical inquiry in the present day. The emotive interpretation of music is not a viable criterion for a mode of thought that seeks the primary and universal essence of music. Such a mode of thought should embrace wider concepts from the field of philosophy of art rather than the limiting horizons of expressionist aesthetics.

The philosophy of art is concerned with problems of art and truth. Truth here is neither the cognitive truth of science nor the practical...
truth of things, but rather the spiritual truth of being or existence in
the phenomenological sense. Truth of being “is essentially some-
thing livable. When something is truly, as that thing, it has truth of
being. It is as its own essence requires it to be; it has an essence that
requires it to be itself” (Hofstadter 1965:viii). Beauty in art, then, is
the convincing rightness of each unique truth illumined in the total
form of the individual work of art. Thus, any philosophical inquiry
into the truth of being of music necessitates an examination of the
basic essence or ontology of its existence. Music, as art, is more than
an inanimate thing in the world; it is a living entity whose spiritual
being is revealed in the dimension of time.

In his essay, The Origin of the Work of Art, Martin Heidegger pre-
sents a brilliant argument on the revelation of being in the work of
art (1964). It is remarkable that Heidegger concentrates on archi-
tecture, poetry, and painting as illustrations of his philosophical
theory. A consideration of music and time could serve as a particu-
larly vivid projection of his ideas. According to Heidegger, truth as

dletheia, or the unconcealment of what is, happens in the work of
art; it is an event. Music comes to life in time; the happening of its
being is inextricably bound up with duration. Through a unique
ordering or articulation of time, music reveals its Sein: the nature of
itself by virtue of which it truly is. For philosophy of music this
revelation is ontological—that is, fundamental to all music regardless
of time and place. For history of music, this revelation is stylistic—that is, specific to different cultures and individuals. These
two approaches are neither paradoxical nor irreconcilable. The
stylistic order of time in a particular composition can be more sen-
sitively grasped if understood in the light of the universal features
underlying the temporal essence of music. As a sketch in the
philosophy of music, this essay presents a few suggestions concern-
ing the most basic element of musical time: the relationship of sound
and silence as essential to the revelation of music’s phenomenal
existence.

The being of a work of art, the happening of truth or what is at
work in the work, is revealed in the conflict of earth and world. Earth
is more than thing-like matter; it is “that whence the arising of all
that arises . . . ” (Heidegger 1964:670) and thus, at the same time
concels and supports the potentiality of its form-accepting nature.
Only on the foundation of earth is it possible to erect a world. World
is more than mere formed matter; it is “self-opening openness”
(Heidegger 1964:674). It not only discloses total content as the
truth, or unconcealment, of meaningful existence but also permits
earth to show itself as earth, the enfolding and protecting medium. In music, sound is matter or earth; it is the medium which becomes formed by silence and pulse. Of these two elements, the latter appears more obvious to the listener and the analyst. Whether percussive or accentual, melodic, harmonic, etc., pulse makes manifest the existence of sounds as durational forms. But silence, if less obvious, is all the more fundamental and primary. Music grows out of and fades into silence both as a total composition and as a series of isolated sounds. Thus, the entire spectrum of its existence is ruled by silence. A series of continuous, even pulsating, sounds without pause would become immobile in the sense that duration would not be perceived as passing: time is hidden. Silences, inserted in sound, give music its basic articulation through which the ordered passing of time is perceived: time is disclosed. This articulation takes place on the level of the background of the musical work. On the middleground, the elements of pulse articulate musical form. Finally, the total world of a work as a perceptual phenomenon is posited on the foreground.

The relationship of middle and foreground is immediately perceived, and for this reason, the formative elements of rhythm, melody, and harmony are most often subjected to musical analysis, both aesthetical and critical. However, these elements are rarely considered as components of pulse which order through their combined interplay the dimensional arena in which world and earth come to terms. Pulse is usually seen from other viewpoints which, although valid, remain inadequate for a philosophical inquiry into music's existence. In order to examine the elements of musical pulse in relation to time, we must first consider that level of structure which lies beneath the middleground.

The alternation of sound and silence articulates a form, or *Gestalt*, in which the basic confrontation of world and earth takes place. This confrontation, unlike that of middle and foreground, can be seen only from the point of view of time: hence, its obscurity and elusiveness. In this relationship silence is neither passive nor negative, but rather active and positive.

It is silence that distinguishes and individualizes sounds and phrases and delimits the period of time in which they are enclosed; its action builds an ordered becoming (Brelet 1958:106).

Brelet distinguishes two types of silences: those which are empty and those which must be filled. The former separate phrases and sections; the latter unite elements in that they are equivalent to tones whose duration they replace. As such, they are part of the rhythmic
organization of a piece. This distinction does not stand too well, for in reality, there are no silences in music that are empty gaps. All are "filled" silences regardless of their function.

Although silence is ontologically present in any musical structure, it is not always handled in a deliberately studied manner. Webern’s awareness of silence may be described as intellectualized cognition, whereas Mozart’s concept of silence, while equally fundamental, appears to be unconscious and instinctive manipulation of its formative role. The function of silence was attested to by Mozart who, when asked to name the most important element in music, replied, “The rest.” While this apocryphal anecdote has its humorous side, the concern with silence of such a composer as Webern is by far more serious. Music, for Webern, presupposes the silence which it fills, and therefore, he includes the silences before and after a composition as part of the total temporal duration of the work. That a pause in the musical texture is not an empty gap for Webern is vividly demonstrated by the indication in one of his scores for a rest with a crescendo. In all music, silence is always present whether it is filled by sound or takes the place of sound. Silence is formative and in the act of forming sound, it contributes to the fundamental conflict of world and earth.

World and earth need each other and at the same time struggle with each other. The repose in this conflict is the winning of the unhiddenness of entities. So in music it is silence that reveals the background of the existence of sound as sonic form; but silence needs sound as a medium in order to articulate time. The true being or essence of both sound and silence is attained in their union. In their conflict is won the unhiddenness of music as an entity: dynamic temporal form. By revealing its being in the light of *aletheia*, music reveals the truth of musical time.

Langer, in *Feeling and Form* (1953), states that music is the realization of virtual time. Would it not be possible to suggest that musical time, or better, the being of musical time, is revealed as the aggregate of real, psychological and realized virtual time? Although musical time is in a sense independent of real time, the fact that a composition happens within a certain clock-measured duration influences its inner temporal organization; whether a piece is long or short, by clock time, has some bearing on both the composer’s creation and the listener’s experience of the musical duration. Furthermore, music exists both in and out of time: in memory, for example, it is possible to re-experience a piece by reliving it in mentally imagined time, or to remember it as a totality in an instant. In actual percep-
tion, moreover, *Gestalt* psychology has shown us that "the temporal curve of a melody, like that of the whole musical work, is never given to us: we make it for ourselves" (Brelet 1958:108). The physical sounds die away, but we organize these sounds into articulate and meaningful forms. Heidegger's notion of the perceiver as the preserver of the work of art takes on particular significance in this context.

At this point we broach the most astonishing problem posed by music as an existent phenomenon. Physical sounds are delimited by silence and therefore, as a medium in time, they actually conceal that form which they reveal when formed by silence. The development of Western music can be seen as a cumulative effort to arrive at large forms perceptible in a temporal medium, a seeming contradiction in essentials overcome by an overwhelming act of the human imagination. In no other art has such a monumental struggle of earth (sound) and world (temporal form) been resolved. This dynamic conflict-repose of earth and world is present in each and every musical experience.

Let us take canon as a perennial example of this world-earth relationship. The phenomenon of canon is as old as the phenomenon of music itself and extends from the improvised singing of stone-age man to the complex permutations of contemporary composition. This enduring fascination with canonic form is more than a curiosity of history. It suggests, rather, that canon embodies characteristics that are essential to an ontology of music as a phenomenon addressed to human apperception. Canon is an original and universal procedure which allows music to reveal itself *qua* music: tonal form existing in time. In canon, whether primitive round or sophisticated art-form, we perceive directly the two dimensions of music: the durational, in which music happens in time; and the spatial, in which music projects architectonic form. On the one hand, the imitation of one musical line by another makes palpable the passing of musical time; the listener hears identical melodic phrases stated *successively*, each sounding and disappearing into silence as time progresses. On the other hand, the identity of these phrases refers each one to its counterpart in a non-temporal fashion; the listener relates the identical phrases in a *simultaneous* conception independent of duration. This interrelationship creates the vivid illusion of spatial form that seems to defy the temporal aspect of musical imitation. And yet, this temporal aspect is the dimension that makes the interrelationship possible. These two dimensions—temporal and spatial, linear and vertical—oppose and complement each other at the same time. The
problem of their elementary fusion constitutes the essence of canon. A Machaut chace, a Josquin fuga, and a Bach canon all deal with the fundamental problem of canonic procedure; but each solution is conditioned by the presuppositions of a stylistic period and the musical language of an individual composer.

Canon is only one of myriad forms that pose and resolve the basic problem of the existence of music: dynamic temporal form. Every musical work reveals the being of world—the Wesen of tonal form of the style in which the piece is composed. This musical world also reveals the being of earth—the Wesen of sound as matter, enclosing and hiding the possibilities of temporal order. The fusion of sound and silence supplies the background design of the musical work of art. In the relationship of sound and silence the essence of time-space truly exists; thus, music stands in the light of aletheia. Truth is an event; it happens in the work of art, precisely in the ordering of the design. Duration happens in a piece of music through the ordering of time by the articulation of sound by silence. The happening of duration creates form—sonic form existing in time. Creation is not making, according to Heidegger, but letting truth go forth into the light, into the shining center of world-earth repose in the work of art. This Scheinen (light, shining, appearance, semblance, illusion) has a most provocative and fundamental connotation when considered in relation to the essence of the being of music. This being is dependent on the repose-conflict of world and earth, sonic form and temporal order, existent first and foremost on the background level articulated by sound and silence.

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REPORT FROM YALE:
Festival of Contemporary
American Music
Jon Appleton

From May 14 to 21 the International Society for Contemporary Music, in cooperation with the Yale University School of Music, presented a festival of contemporary American music. Although the first concert-discussion paid tribute to Aaron Copland and Roger Sessions, the bulk of the events were dedicated to Milton Babbitt of Princeton University who celebrated his 50th birthday. The concert given on May 20 featured "The New Generation in New Haven;" the concert on May 21 was devoted to Babbitt's music and to works dedicated to him. Some of the works from these programs will be mentioned below as they relate to the real subject of this report: the seminars on computers and notation.

The first seminar, entitled "Computers and New Music," consisted of a keynote address by Lejaren Hiller ("A Review of the First Decade") and a panel discussion including Milton Babbitt, J. K. Randall, James Tenney, and Hiller. The moderator was Mel Powell.

Hiller divided his address into four main areas: input and output systems, musicology and analysis, composition, and synthesis. Those who have followed the literature in this field—from Hiller and Issacson’s Experimental Music (1956) to Hiller and Bean’s "Information Theory Analysis of Four Sonata Expositions," Journal of Music Theory (1966)—need not have attended this session. Hiller presented a sketchy summary of standard topics: storage and retrieval, machine and compiling languages, and music printing via computer-typewriter and photo-readers. He referred to work being done by Michael Kassler at Princeton (computerized Schenkerian analysis) and by Stefan Bauer-Mengelberg at Columbia (computerized scanning device) but failed to give any details concerning this work. With regard to his own projects it must be concluded that his limitations as a musicologist have prevented him from posing significant questions. The panel agreed that theorists and musicologists have not

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kept pace with technological advances (the work reported in the current issue of the *Journal of Music Theory* was done over six years ago).

Hiller moved from the above topics to the use of the computer in composition by stating that he considers himself a composer rather than a theorist or engineer. Hiller was a pioneer of sorts with the *Iliac Suite* (1956),¹ and it was disappointing to see that very little had been learned since that early experiment. Hiller himself was forced to admit that the fifteen or so computer-composed works were "rather simple-minded." More distressing than the music itself was the attitude of gamesmanship Hiller displays towards music. In composing part of the *Computer Cantata*, Hiller thought it would be amusing to employ the same parametric specifications as Charles Ives did in *Three Places in New England*. Within these specifications the pitches, etc., were randomly selected by the computer. Hiller is presently writing a piece "just for the fun of it" where probabilities are based on gas velocities.

J. K. Randall of Princeton began the panel discussion by playing samples of music composed under the Music IVB project. There is no comparison between the work being done at Illinois and that being done at Princeton. The latter has serious musical intentions and seems to be overcoming the difficulties initially encountered. These are pieces which "use the computer as a performer and not as a maker of compositional choices." As Milton Babbitt indicated later, there are certain problems in not being able to hear the piece until the punched cards have been run through a digital to analogue converter. Nevertheless, the efforts show promise, and one can only hope that eventually the composers from Princeton will be able to play more than "works in progress."

James Tenney has been working in much the same area as Hiller; his music is computer-composed but performed by the machine as well. Tenney works with broadly-conceived structures in which the detail is randomly generated by the computer. The results are tedious and sound like a cross between *Fontana Mix* and some early experiments in a conventional tape studio. The presentation on the previous evening of Bulent Arel's *Stereo Electronic Music No. 1*, which followed Tenney's *Ergodos II*, led one to suspect that at the present time the best electronic music is still being composed in the tape studio.

Milton Babbitt spoke very briefly but was able to put the entire subject of electronic music into useful perspective. He suggested that the lack of evidence in the fields of psycho-acoustics and sound perception has handicapped many of the composers now using computers. It is impossible to quarrel with this statement after having heard the work of Tenney and Hiller.

The keynote address of the seminar on "New Music Notation" was given by Kurt Stone and was entitled "Symbology: Forms and Purposes." The remarks were centered around two general questions: why do today’s composers feel a need for new notation, and what are the present trends in notation? Stone felt obliged to offer a brief history of musical notation in Western civilization to support the time-honored cliché that no upheaval in the last 1500 years is comparable to our own. No one can deny the complexity of today’s notation, but some of the performers who participated in the festival felt that composers and performers alike have been able to adapt the notation of common practice to suit their needs and that radical departures in notation often create more problems than they solve.

Stone offered several specific objections to the standard notation: (1) Staff notation is modal and not intervallic in conception and thus hampers the recognition of novel pitch relations. (2) Arithmetic rather than geometric progressions must be developed to indicate rhythmic relationships. (3) We have no way to effect a really controlled ritardando or accelerando. (4) There is no way of notating simultaneous rhythms. Stone is incorrect with regard to the last two points. The invention of the polynome and coordinome by the composer Emmanuel Ghent has demonstrated a simple and ingenious solution to these difficulties. It is ironic that composers have not turned to electronic devices to solve problems of performance when they have been relying on machines to create their music for the past twenty years.

In his discussion of today’s trends in notation, Stone showed slides and provided brief explanations of the following published scores: Carter’s String Quartet (1959), Berio’s Sequenza (1959), Brown’s Hodograph I (1958) and Available Forms I (1961), Stockhausen’s Refrain and Haubenstock-Romati’s Decisions. Many of these scores are examples of semichance music and led Stone to question whether notation hasn’t become an end in itself or a vehicle to awaken the performer’s curiosity.

A panel discussion followed the address and was moderated by George Perle. George Crumb discussed his score for Night Music I
and played two different performances of the third movement. He spoke of his desire to achieve a "controlled chance" or "multiple choice" situation and indicated a concern for horizontal logic, leaving vertical relationships to coincidence. Composer Donald Martino spoke about the score of his Parisonatina Al' Dodecafonia (magnificently performed the previous evening by the cellist Aldo Parisot). The score employs three colors to indicate pizzicato, col legno, and a special effect of tapping on the body of the instrument. Martino said he was appalled by the permissiveness of performers which should be corrected by spelling out every nuance desired by the composer. If the composer genuinely wants extreme latitude in performance, scores like those of Cage and Berio are perfectly acceptable. Babbitt took issue with his pupil, Martino, by pointing out that permissiveness is often the result of specifications that cannot be realized in performance. To illustrate this, Babbitt played three distinct rhythmic patterns which in a synthesized performance sounded nearly alike. Babbitt concluded with a complex discussion of acoustical phenomena and their relation to scores of electronic music.

These were important meetings and would have been of great value to musicologists. It is unfortunate that the Greater New York Chapter of the American Musicological Society had its largest meeting scheduled for the same day. The audience was further limited by the parochialism of the festival directors. Why were nearly two-thirds of the festival patrons on the staff of the Yale School of Music? Why was the May 20 concert called "The New Generation in New Haven" when the majority of the compositions came from locations outside New Haven and three of the six composers received their training abroad? Perhaps this was Yale's protest against the Columbia and Buffalo groups for contemporary music. Finally, the festival was so poorly publicized that very few "outsiders" were able to experience the irregularities of the New Haven Railroad.
REPORT FROM
NEW YORK UNIVERSITY:
Music Colloquium of the
Institute for Computer
Research in the
Humanities
Austin Clarkson

THE INSTITUTE FOR COMPUTER RESEARCH IN THE Humanities (ICRH), New York University, sponsored a Music Colloquium at the Washington Square campus, April 5, on various applications of the computer to musicology. Moderated by Professor Jan LaRue, the Colloquium program began with reports from non-musical fields by Professor Alice M. Pollin (Research Co-ordinator for Literature), Mr. Milton Stephenson (Head of Technical Services for the University Libraries), and Professor John E. Allen (Research Co-ordinator for Linguistics).

Professor Roland Jackson and Mr. Philip Bernzott of Chicago Musical College, Roosevelt University, gave the principal paper of the afternoon: "Harmonic Analysis with Computer—A Progress Report." The authors described their system of coding compositions for harmonic analysis and then demonstrated various tests they had made of the system. Compositions are coded according to conventional criteria of harmonic segmentation (single, root-function chords; two-chord progressions; non-harmonic tones), yet the authors claim that this coding procedure could be adapted for Schenkerian analysis and for treatment of longer compositional segments (phrase and period structure). They are particularly interested in identifying traditional sonorities in 20th-century music and have shown, for example, that 70 percent of the chords in Berg’s Lyric Suite are tertian minor-minor seventh chords and that Stravinsky’s chordal vocabulary is as small as Perotin’s. They suggest that a catalogue of coded compositions be built up at a central library.

AUSTIN CLARKSON is completing his dissertation on The Strophic Motet: Medium and Form for presentation to the Department of Music, Columbia University.
The program closed with brief reviews of some current ICRH projects in music. Professor George Logemann (Research Coordinator for Computer Science) spoke on general features of music analysis languages and noted that different languages are suited for different tasks and different computers. He urged that new programs be shared. Mr. Murray Gould (Research Associate) demonstrated a key-punch system for coding Gregorian chant as edited in the Liber Usualis. He remarked that the chant is particularly tractable because of the limited pitch-set and the grouping of notes into compound neumes. He has constructed a model of all pattern successions, and he indicated that manuscript sources of chant may also be coded together with their particular attributes. Another research associate, Mr. Gary Berlind, reviewed the technical problems of melodic analysis by computer with particular regard to the retrieval and graphing of statistics resulting from the analysis. Mr. Eugene Wolf (doctoral candidate in musicology) concluded the Colloquium with a progress report on his study of formal patterns in the symphonies of Johann Stamitz. With a view to determining the chronology of Stamitz's works, he will check two programs against each other: one that analyzes the development from (Baroque) motif-design to (Classic) phrase-design and another that analyzes the "time-line" and repetition patterns.

The ICRH Newsletter began monthly (except July and August) publication in September 1965 and may be obtained from the Institute for Computer Research in the Humanities, New York University, University Heights Campus, Bronx, New York 10453.
REPORT FROM NEW YORK:
First Annual Conference of
the American Society of
University Composers

Arthur Daniels

BY WAY OF INTRODUCTION TO THE REPORT ON THE FIRST
Annual Conference of the American Society of University
Composers (ASUC), held in New York City on April 1–3, 1966,
let me explain that the formation of the Society was announced in
the Fall-Winter 1965 issue of Perspectives of New Music, with sixty-
three composers listed as founding members. On the aims and prin-
ciples of the Society, I quote from the Perspectives announcement:

The chief assumption of the Society is that the university is an
appropriate place to pursue serious composition and the whole range
of professional activity necessary to it. We have found that an environ-
ment where music is regarded as entertainment, where professional
standards are set by non-professionals, and where writing about music
is dominated by a belief in amateurism, is inadequate to our profes-
sional requirements. We have also found that the university, with its
tradition of respect for serious intellectual activity, professionally
established standards, and rational discourse, can be more than a
convenient economic haven for composers; it is at present, for better
or worse, the American institution best suited to the development
of an adequate environment for our profession.

The actions of the Society will fall into three major areas:
1. The establishment of both general and curricular standards for the
   wide range of subject matter relevant to the compositional discipline.
2. The establishment among university composers of a collective
   means of representing their interests, both within the academic com-
   munity and to the intellectual and political communities at large.
3. The improvement of communication within the profession: the de-
   velopment of means for disseminating essential professional informa-
   tion through performance, publication, and the provision of regular
   opportunities for professional dialogue.

In its original announcement ASUC invited application for mem-
bership in two categories: General Membership—open to qualified

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professionals teaching in American colleges, universities, and schools of music; and Student Membership—open to graduate students in composition. In the course of the Conference it was made clear that any composer, who at any time in his life was associated with a college, university, or conservatory, is eligible for membership. Thus, two of the founding members have at present no academic affiliation: Grant Beglarian, the Director of the Contemporary Music Project of the Music Educators National Conference; and Ernst Krenek, listed simply as a resident of Tujunga, California. As evidence of the need for and interest in an organization of this kind, the original list of sixty-three founding members was more than doubled in the few weeks which elapsed between the mailing of this issue of Perspectives and the opening of the meeting.

The Conference, presented with the co-operation of the music departments of Columbia and New York Universities, consisted, on the one hand, of a series of seminars (lectures, panel discussions, and organizational meetings) held at the Loeb Student Center of New York University, and, on the other, of two concert-demonstrations by new music performance groups (resident at Rutgers University, Columbia University, the University of Pennsylvania, and the State University of New York at Buffalo) presented in McMillin Academic Theatre of Columbia University. Space limitations do not permit more than a brief but enthusiastic gesture of appreciation for the high standards set by these performance groups. My discussion of the organizational meeting must be limited to the simple statement that committees have been established to set up effective machinery necessary for the three major areas detailed above.

It is clear from the Society's statement of its aims and principles, quoted in part above, that much of its energy will be directed toward the betterment of the material circumstances of its membership. It is equally apparent that this same statement scathingly indicts the academic environment in which most American university composers presently operate. Therefore (since the contents of the seminars will be published in amplified form as part of the Society's Proceedings) my discussion of the seminars will stress those comments by the various speakers which indicate specific areas of dissatisfaction with this environment.

The topics of the four meetings were as follows: (1) The University and the Composing Profession: Prospects and Problems; (2) Computer Performance of Music; (3) Discoveries and Problems in a
Study of Berg's *Wozzeck*; (4) What do you want a student to hear in a piece of music?

Mr. Iain Hamilton (Duke University), the conference's first speaker, contrasted the position of the composer in his native England with that of his American counterpart. Whereas the European composer is a professional and seldom affiliated with universities, the American composer finds that his colleagues on campus are no longer true professionals. "They pursue lives in music of a kind of dreamlike fantasy, a situation supported by no little amount of shady politics." The composer has a responsibility to his students to inquire into the teaching of his colleagues, especially when he inherits their badly-prepared students. Mr. Hamilton urged the composer to teach occasional courses to the general student body. He decried the low level at which music history, in effect, music appreciation courses, are taught and asked whether a college physics department would offer a course in "physics appreciation." "Why should introduction to music courses be given as if the students were children?" He warned the composer against being swamped in departmental matters and service on committees and closed with the observation that universities are just about as antithetical to creative work as any institution can be.

Mr. Andrew Imbrie (University of California, Berkeley) reported on the progress of a project, initiated in 1961, to publish new music through the University of California Press. Scores and parts are to be issued as part of the University's series publication, with free distribution to university music libraries throughout the country under an arrangement already established for scholarly monographs. The rental of orchestral materials will be handled by the music library at Berkeley, which will also aid with limited mailings of advertising material for the series. Since the regulations on series publication stipulate that only material by faculty and students of the university may be published, Mr. Imbrie frankly raised the question of parochialism. He was quick to add that if other similar series originate around the country, this problem may disappear, especially if resources are pooled, particularly in the areas of promotion and distribution. He suggested the eventual establishment of a central office, supported by a confederation of universities or by the ASUC itself. Three works thus far have been approved for publication: a string quartet by Arnold Elston, now ready for publication; a cantata by Seymour Shifrin to the text of Sophoclean choruses; and David Lewin’s *Classical Variations on a Theme of Schönberg* for 'cello and piano.
Mr. Beglarian urged the Society to be more than a union working for the improvement of the composer’s lot on campus. The Society should attempt to convert the campus to an operational base, affecting not only the campus itself but also the surrounding area and the country as a whole. He identified the large university-connected school of music as the type of institution “which, for better or worse, shapes the present and future of our musical life.” He characterized as having abandoned music to the Philistines in the outside world those departments (a few in the East and some not so old in the West) which have omitted music performance altogether from their curricula, while producing historians, theorists, and composers whose training in a classical university can be justified in terms easily understood by Greek scholars, doctors of jurisprudence, and college presidents. On the other hand, he said, the university schools of music turn out armies of public school teachers, tuba players with doctorates, notational problem solvers (musicologists?) with Ph.D.’s, and theory teachers who compose now and then. He contended that a composer on campus should be valued more for his ability as a composer than as a teacher and that the university must allow violin playing to be equated with surgery and composition with research if it is to be regarded as a cultural center.

Mr. Charles Wuorinen (Columbia University), speaking from his experience as co-director of the Group for Contemporary Music, pointed out that in urban areas the university composer enjoys few performances of his works, and these are generally far from adequate. The composer working in the university school of music, which may be dominated by a non-compositional approach to performance, suffers similarly. Thus, the formation of the Columbia group (and similar organizations at Rutgers University, University of Pennsylvania, University of Chicago, and the State University at Buffalo) has originated from the composer’s desire to take a direct hand in the making of his own music and that of his colleagues. The same impulse, perhaps, has led to the recent interest in electronic music, that is, not so much a desire for new sounds as the notion that the composer may thereby exercise a higher degree of control over his compositional intent than if he entrusts his work to lazy, indifferent, or hostile performers. The activities of these groups operating in academic institutions (and in departments of the type disparaged by Mr. Beglarian, I might add) has resulted in the raising of performance standards in the professional concert world and the creation of a whole new breed of composer-performers.
Many problems, chiefly financial, confront groups of this kind. University administrations must be persuaded to pay for the performance of new music on campus. There is also, and surprisingly, the problem of overfinancing. Large foundations and the Federal Government must be persuaded to consult with professionals, those who set standards, before glutting the market with funds. An attempt should be made to expand the present scope of these groups to include the small orchestra and ultimately the orchestral and operatic media as well. Mr. Wuorinen believes that the orchestral situation in the public world will get worse instead of better, and the composer must either abandon the large orchestra or convince university administrations to support orchestras on campus devoted to the performance of new music. He urged the ASUC to see to it that performance groups in this country operate in less isolated fashion than now through the publicizing of the various groups' activities and through the distribution of tape recordings.

Three of the four speakers in the session on "Computer Performance of Music," Messrs. Ercolino Ferretti (Massachusetts Institute of Technology), Godfrey Winham (Princeton University), and James Tenney (Yale University), concerned themselves chiefly with descriptions of the computer equipment used by them to produce the brief musical examples which they presented. Mr. Herbert Brün (University of Illinois), the session's first speaker, did this and much more. After explaining that his paper was "meant to describe one point of view, seen from which a composer will want the best possible computer system to assist him, be that expedient or not," he launched into an explication of the creative process, expressed in information theory terms, so tautly-organized that it would be both vain and unfair to attempt a synopsis here.

In the panel discussion which followed the four lectures, Mr. Martino noted the lack of variety in attack characteristics in the examples played and asked whether this was due to limitations in the capabilities of the machines producing the sounds or in the men operating the machines. The speakers promptly exonerated the machines. Messrs. Brün and Lejaren Hiller (University of Illinois) explained that they are now engaged in research on the transients of sound on, for example, the inharmonic partials which are present in a particularly sharp trumpet attack.

Mr. Harold Shapero (Brandeis University) asked Mr. Brün (1) whether he equated artistic invention with the reduction of chaos through the ordering of information, and (2) why it is that music
seemed richer when it was an art and a craft and not a branch of acoustical research and analysis. He concluded by asking whether this could have anything to do with the confusion of the quantitative with the qualitative. Mr. Brün replied to the first question that he does not make such an equation. What he does equate, he said, is artistic invention with the desire for a new system which could be ordered because it happens to be in chaos, for the reason that only a selection which has not been made before can have any meaning. During the discussion of the second question, Mr. Shapero deplored the excessive emphasis on quantification which is responsible for much of the boredom and lack of variety in the artistic products and announced that it is time for the scientific mentality to be buttressed by the qualitative mentality. Mr. Brün agreed but maintained that the systems which listen are not entirely compatible to the systems which produce. Mr. Shapero objected that Mr. Brün was asking for a special ear, free of prejudice and that he was not entitled to it. He maintained that all music, even “the artistic product coming from the analysis of sound,” must be listened to and judged by artistic criteria. Mr. Brün replied that artistic criteria are contextually defined and that they cannot be considered an ultimate standard. He defended his right to produce in front of an audience any kind of acoustical organization that he regards as meaningful and concluded that if he had to make a choice between artistic criteria and music, he would choose the latter.

The salient feature of the final seminar was the universal dissatisfaction with the products of our public school music programs, expressed by panel participants and speakers from the floor, including some representing the most prestigious music departments in the country. Perhaps the answer to Mr. Hamilton’s rhetorical question—Why should introduction to music courses be given as if the students were children—is “Because, musically speaking, they are children.” If one compares the serious study of mathematics and science, beginning with the earliest years of grade school, which prepare the student for work in physics at the college level (to return to the analogy drawn earlier by Mr. Hamilton) with the dreadful emptiness of most public school music programs, with their barbaric emphasis on football marching bands and Christmas caroling for the PTA, then it is no wonder that music students reach college with undeveloped, if not hopelessly perverted, minds, ears, and appetites.

If this new Society can extend its involvement with curricular matters to include university public school music programs, then it
may well prove to be the decisive force in bringing about the musical maturation of this country.

REPORT FROM QUEENS:
Meeting of the Greater New York Chapter
of the American Musicological Society
Cheryl Seltzer

AN ALL-DAY MEETING OF THE NEW YORK CHAPTER OF THE American Musicological Society was held at Queens College on May 21. In the morning papers were read by Samuel Pogue, Joel Newman, and Douglas Townsend, accompanied by excellent musical demonstrations by Paul Maynard and the Queens College Vocal Ensemble, the Morningside Consort, and Henry Schuman’s New York Wind Society Ensemble Workshop. At luncheon, Emmanuel Winternitz’s talk, announced as “A Treasure from Hungary—The Mysterious Cimbalom,” turned out to be a seventy-fifth birthday tribute to Egon Kenton. After lunch, Saul Novack spoke about Queens College’s recently-acquired collection of old instruments, named in honor of the late Noah Greenberg; and Paul Maynard, Greenberg’s colleague, directed the Queens College Collegium Musicum in a remarkable memorial concert.

This report concerns the concluding event of the day, a symposium on the topic “Musicology 1966–2000: A Practical Program.” Under the chairmanship of Barry Brook short papers were presented by Professors Luther Dittmer (Brooklyn College), Jan LaRue (New York University), Edward Lippman (Columbia University), Claude Palisca (Yale University), Lewis Lockwood (Princeton University), and Franklin Zimmerman (Dartmouth College). The papers will eventually be published in a bulletin of the AMS. The topic offered the opportunity for a few facetious projections about musicological activity in the year 2000, including conjectures about “Super-

This report is the result of a collaboration among Joel Sachs, Cheryl Seltzer, and Judith Zessis, all doctoral students at Columbia University.
musicologist,” “astro-musicologist—the true traveling fellow,” etc. The aim of the session was to underscore the major tasks facing musicology in the next thirty years and to continue discussion about the nature and purpose of musicology in line with such recent publications as Harrison, Palisca, and Hood’s *Musicology* (1963), the Kerman-Lowinsky exchange (*JAMS* 1965), and Edward Lippman’s article in *Current Musicology* (Spring 1965).

Luther Dittmer stated that present research methods would eventually make available all major sources of medieval music and treatises. With the end of this “Paleographic Period” musicologists would be free to concentrate on analysis of musical structure and style, performance practice, rhythmic questions, non-liturgical music, the context of musical creativity, and the relation of Islamic and Western European music. Furthermore, we will have to define our relationship to the music before 1400: is a true “aesthetic attachment” to music of this era possible, or must we ultimately agree with Tinctoris that music worth hearing began with Dunstable, Dufay, and Binchois?

Jan LaRue also expressed the opinion that attaining greater command over sources should enable us to focus attention on analytic and critical work. Our goal will be to develop a comprehensive theory of style analysis, applicable to all ages. We must discover the “inner concinnities” of a composer’s style, that is, the dominance of any two of the following factors: harmony, rhythm, melody, and sound. In the hands of a discerning researcher, the objective, comprehensive, and supremely efficient computer will be the most important tool of musicology in the next decades. LaRue also suggested that since new ideas are invaluable to the profession, the presence of younger members on the committees and board of the AMS would be highly desirable.

Edward Lippman stressed the importance of a knowledge of major theoretical writings. He called for a concerted effort to translate and publish reliable critical and annotated editions of these documents. We need a new comprehensive history of theory to supersede Riemann’s, which would trace theoretical issues through time, categorize types of treatises according to their speculative or analytical functions, and correlate theory of each age with neighboring intellectual pursuits. Our study should relate theory and practice, with special focus on the writings and music of composers. The theory of a period could delineate appropriate criteria for stylistic analysis of its music.

Proceeding from Manfred Bukofzer’s opinion of style criticism as
the core of modern musicology, Claude Palisca stated that special attention should be given to the process of stylistic change in transitional periods. We should attempt to formulate hypotheses of stylistic change and valid means of correlating style with culture. Great caution should be exercised in applying the Zeitgeist principle. In line with Lippman’s remarks, Palisca noted that theorists’ and composers’ writings can be a valuable clue to stylistic changes.

Commenting further on the Kerman-Lowinsky exchange, Lewis Lockwood cited the diversity of “musicologies.” The sphere of musicology will be expanding; increasing specialization will necessitate better communication within the field. We need “scholarly socialism”: sharing of ideas at symposia, institutes, and national AMS meetings. And while musicology has extended its sphere in “time and geography,” a further dimension is needed through contact with related fields. Lockwood decried invasion of the field by amateurs and pseudo-musicologists and called for a clearer definition of the professional nature of musicology. “A professional professes.” Professed experts must know music better. As Oliver Strunk said, we should know the history of music through scores, instead of through non-musical data.

Franklin Zimmerman gave his definition of the ideal musicologist as a scholar-writer, performing musician, and teacher. He emphasized that the responsibilities of teaching both musicologists and laymen will have to be redefined in the immediate future. As population increases, more efficient teaching methods will have to be devised. The dangerous gap between musical laymen and the specialists must be bridged. Within the field itself we need more “generalists” to synthesize the work of the specialists. He agreed with Harrison on the role which sociology could play in studying music and man. Citing Kerman’s argument, he stated that the formulation of history through style analysis and the combination of biography and thematic cataloguing (Zimmerman’s specialty) should ultimately result in more enlightened performance and criticism, and greater dissemination of music.

Because of the late hour the discussion and question period which followed was curtailed. There was little opportunity for the panel and audience to clarify and amplify some of the ideas which were only sketched in the short papers. There was a brief discussion on the role of the computer. Lippman questioned LaRue’s proposal that the computer be used to analyze style, since in Lippman’s opinion style is essentially a more complex combination of factors than the printed note would indicate. Arthur Mendel, called upon to make
concluding remarks, criticized the term “computer analysis.” A computer “cannot analyze,” but it can collect and organize data. Mendel said that we need to analyze what is behind the notes, but not “too far behind.” He also cautioned that valid generalizations must be supported by thorough knowledge of individual works. In this regard he called for better communication between historical musicologists and music theorists, a point which none of the panelists had made.

Let us consider, in light of the symposium’s title, which issues were stressed and which were ignored. The panelists enumerated the following activities of a “practical program”: transcription and publication of medieval sources; translation, analysis, and publication of all-important theoretical writings; the writing of a new history of theory; a study of the relationship of theory and practice; the formulation of principles of style analysis and stylistic change; freer exchange of ideas within musicology and with other relevant disciplines; more strictly-defined professional standards; clarification of the musicologist’s responsibilities as a teacher.

Important areas were ignored. First, the value of analytic theorists (as differentiated from historical theorists) to musicology. (This was mentioned only at the end by Mendel.) If style analysis is indeed the focal point, if historical musicologists want to draw meaningful conclusions, it is imperative that they sharpen their analytic tools. Second, despite the talk about improving communication, no reference was made to increasing contact with contemporary composers. This is essential. Not only do composers have their own very special insights into music, not only would we endow musicology with a fresh spirit, alive to the creative activity of our own age, but musicologists well-versed in compositional procedures could contribute to bridging the gap between the lay public and contemporary music. Third, aside from Zimmerman’s remarks, there seemed to be little concern for the important role which musicologists will have to assume in all phases of music education—from the replacement of John Thompson to the improvement of graduate school. Last, no one mentioned the relationship of musicology to performance, although, thank heavens, at least one speaker remembered to acknowledge enlightened performance as an important aim of musicological effort! Judging by the refreshing emphasis placed on live performance in the day’s activities, one can hope that this was an oversight. We would have reservations about Lewis Lockwood’s attempt to define the exclusiveness of professional musicology. Although his statement is relevant, perhaps, for “DeKovenism,” any attempt to isolate
musicology from performance could only have negative results. There was one good question from the floor concerning the value of a theory of performance, that is, the study of a relationship of music to its instrumental or vocal medium. To our regret, the panel member answered, "It doesn't concern us if you play with a loose wrist or a stiff one!"
Matt Cordell Hughes
Tonal orientation in Skriabin's preludes:
an analysis on the basis of information theory


Michael Kassler

An important class of musicological problems is summarized in the scheme: given a musicological statement true of certain musical compositions (or pairs of compositions, etc.), to find a music-theoretical statement true of exactly the same compositions.

Let us suppose, for example, that we know which one of any two Skriabin piano preludes is chronologically earlier. Almost certainly this knowledge is based not on music-theoretical considerations exclusively, that is, it is not knowledge computed just from the notes, rests, clefs, and other primitive symbols of current common musical notation that in some particular order constitute one Skriabin prelude and in a different order constitute another prelude. It is knowledge based, seemingly to a large extent, on such "external" evidence as dates written on the original manuscripts, publishers' plate numbers, watermarks, and correspondence by or to the composer. The problem according with the above-mentioned scheme is to discover whether Skriabin's "style" as reflected in his preludes changed progressively as he aged and if so, to determine music-theoretical properties that preserve this progressive change. (A fuller description of the problem would make explicit the disallowance of "trivial" solutions, possible because of the finitude of the corpus, that require no internal analysis of the preludes and therefore cannot be extended to a case where "external" evidence is insufficient to determine a prelude's chronological place.)

It seems fair to say that music-theoretical investigations have not occupied musicologists to an extent proportionate to the importance of music theory in musicology. Perhaps to compensate this gap, several (mostly non-historical) musicologists have looked to the eminently successful mathematical theory of communication for concepts or techniques useful to

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musical theory. Mr. Hughes, who (I quote from his *vita* sheet) earned the degree Bachelor of Music in Piano Pedagogy from the University of Texas and stayed to do graduate work, writes that "The Information Theory, as defined by Claude Shannon and Warren Weaver . . . is, for practical purposes, divided into two general areas acceptable in musicology as well as in other fields: Conception and Perception" (p. 2). However, as will be evident, Hughes's characterization of his treatment of the Skriabin preludes as information-theoretic in the Shannon tradition is mistaken. Indeed, Hughes miscopies Shannon's well-known formula as $\sum_i p_i \log p_i$ (p. 10). Although the contents of p. 10 are attributed to Fritz Winckel, Hughes's unannotated presentation, twice, of "$\log$" instead of "$\log$," encourages a suspicion that Hughes does not know what he is writing about here. Nevertheless, I will examine Hughes's contribution. Though his procedures are almost purely music-theoretical, I am unable to regard them as a substantial contribution to the stylistic problem which (I believe—he does not say) Hughes endeavours to solve.

Most of the thesis (pages 31 through 186) belongs to Chapter IV, entitled "Results of the analysis of the preludes." Nearly all of this chapter consists of graphs and other tabulations of numerical data that Hughes calculated from 80 Skriabin piano preludes by procedures he presents in eight steps. These steps are outlined below. Because some of Hughes's verbal constructions are idiolectal and unkeyed to standard English, I am unsure that I have reproduced always the meaning he would convey.

**Step 7.** The "note-duration" of each note in a prelude can be expressed as a fraction of the beat (which usually is specified by the time-signature denominator). Hughes calls this fraction the "bit value" of the note. The sum of all the bit values belonging to a prelude—one bit value for each note—is called the "bit" of that prelude, e.g., for Opus 11, No. 1, Hughes computes $\text{Bit} = 105.45$.\(^2\) Consider two notes of the same *note-type*\(^3\) if they represent the same pitch and do not differ enharmonically; consider two notes of the same *note-type-type* if they represent the same pitch-class and do not differ enharmonically, though they may be octaves apart. Following Hughes, extend the notion of "bit value": the bit value of a *note-type* for some prelude is the sum of the bit values of every note in the prelude that is in the *note-type*; the bit value of a *note-type-type* is the sum of the bit values of every note in the prelude that is in the *note-type-type*. Hughes presents two graphs for a prelude. Arranging the *note-types* along the x-axis in ascend-

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\(^2\)I have made no attempt to check Hughes's numerical calculations in general, though in the course of preparing this review I did find some errors. Occasionally, decisions were required by the calculator that are not included in the calculation procedures Hughes presents. For example, in the left-hand part of the antepenultimate measure of Opus 11, No. 1, Hughes apparently assigned to each note the bit value $\frac{1}{4}$, whereas the bit value $\frac{3}{4}$ seems to me correct. The cited situation is complicated because the rhythm is not noted in current common musical notation, but the bar placement seems to disallow Hughes's "five-against-three" interpretation. Naturally, questions such as this must be resolved before one can recognize the utility of the bit of a composition as an objective measure.

\(^3\)All technical terms italicized in this review are my invention; they seem more appropriate to a brief statement of Hughes's work than his own expressions.
ing scalar order (C-double-sharp in some octave would precede D-flat in that octave), but excluding from a place in the graph all note-types whose bit value for the prelude is zero, Hughes plots the positive bit values as y-coordinates and draws a straight line connecting adjacent points, resulting in a one-graph. Similarly, a two-graph is a graph of occurring note-type-type (in ascending order) against positive bit value. Hughes then computes what he calls "arithmetic mean one" for the prelude: the sum of the bit values of all note-types that are relative maxima in the one-graph, divided by the number of such relative maxima. He calls a note-type "important" (to the prelude) if its bit value is greater than arithmetic mean one and arranges the important note-types in order of decreasing bit value (in this arrangement all but the most important one of "octave-equivalent" note-types are discounted).

Step 2. All sequences of three or more successive points in the two-graph of a prelude, such that the first and last but no intermediate points of the sequence are relative maxima or relative minima in the two-graph, are assigned a measure of "complexity" that is obtained as follows: compute the arithmetic mean of the bit values of the note-type-types constituting the end points of the sequence; subtract this number from the bit value of each intermediate point in the sequence; display the resultant sequence of one or more signed numbers. (For this computation the two-graph is presumed to continue endlessly from the last occurring note-type-type to the first occurring note-type-type.) Then "arithmetic mean two" is got: the bit values of all note-type-types in the two-graph, divided by the number of such note-type-types.

Step 3. The "important" note-type-types (that is, the note-type-types that are relative maxima in the two-graph, even if their bit value is not greater than arithmetic mean two) are arranged in order of decreasing bit value. "If possible," writes Hughes, "an attempt to perceive a tonal orientation is made at this point" (p. 23). This may be done by comparing the set of important note-type-types with major or minor scales.

Step 4. The set of important note-type-types is compared with possible "Skrjabin chords," that is, chords possessing the directed semitonal-interval structure 6 - 4 - 6 - 5 - 5. Identities or near-identities are noted.

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*Professor Hans-Heinz Draeager, who served as supervising professor for Hughes's thesis, presented a paper entitled "An attempt towards a semantics of chordal progressions" at what Hughes calls "the International Congress of the Musicological Society at Salzburg on September 4, 1964." I am extremely indebted to Professor Draeager for making available to me an outline of his presentation. Draeager's outline begins:

The basic idea:
- each step in the circle of fifths upwards results in a tendency towards an open, a non-final effect;
- each step down in the circle of fifths results in a tendency towards a closed, a final effect.

Proceeding from this basic idea, Draeager introduces the concept I call Draeager numbering and extends this to chords (the Draeager number of a chord is the sum of the Draeager numbers of the note-type-types instanced by chord elements) and to chordal progressions.
Step 5. Each important note-type-type, together with every other note-type-type whose bit value is greater than arithmetic mean two, is assigned a Draeger Number from the following table:

| Note-type-type: | D\textsuperscript{bb} A\textsuperscript{bb} E\textsuperscript{bb} B\textsuperscript{bb} F\textsuperscript{b} C\textsuperscript{b} G\textsuperscript{b} D\textsuperscript{b} A\textsuperscript{b} E\textsuperscript{b} B\textsuperscript{b} F | C | G |
|----------------|--------------------------------------------------|
| Draeger number: | 1 2 3 4 5 6 7 8 9 10 11 12 13 14 |

<table>
<thead>
<tr>
<th>Note-type-type:</th>
<th>D A E B F# C# G# D# A# E# B#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draeger number:</td>
<td>15 16 17 18 19 20 21 22 23 24 25</td>
</tr>
</tbody>
</table>

etc.

From the set of all Draeger numbers so assigned, presuming it has more than one element, one can compute the integer that is the smallest positive difference between any two Draeger numbers in the set (e.g., the integer 1 if there are consecutive numbers in the set); also, one can compute the largest positive difference. Call the sum of all natural numbers between and including the smallest positive difference and the largest positive difference the complexity numerator. Hughes’s “degree of tonal complexity,” which is computed for each prelude, is obtained by dividing the complexity numerator by \( \frac{1}{2}(r + r^2) \), where \( r + 1 \) is the number of elements in the set of Draeger numbers so assigned. The “degree of tonal complexity” is 1 if the note-type-types to which Draeger numbers are assigned are all “circle-of-fifths connected”; otherwise, the “degree of tonal complexity” will be greater than 1. Hughes reports that “there is conjecture that this tool could successfully be used to indicate more clearly the differences between Classical and Romantic music. There is indication that the most complex tonally orientated composition of the Classical period would still have unbroken consecutive arrangement (i.e., the assigned Draeger numbers would form an arithmetic progression with 1 as common difference), and that there would be a clear departure from this phenomenon in Romantic music” (p. 28).

Step 6. The sum of all the Draeger numbers so assigned, divided by the number of such numbers, is referred back to the given table, and “pinpoints the location of the Prelude as shown by the Circle [of Fifths]” (p. 28). The interpretation of non-integral quotients is not made clear.

Step 7. Exactly the same as Step 5, except that important note-type-types alone are considered.

Step 8. The signed difference of the “degree of tonal complexity” obtained in Step 5 from the corresponding “degree of complexity” obtained in Step 7 is computed.

Clearly, Hughes has made an unusual and, for the most part, an original choice of measurements. Since Hughes explicitly distinguishes (p. 15 and elsewhere) “tonal orientation,” which is his concern, from “tonal organization,” which has been a central concern of musical theorists for several centuries, the necessity for unusual measurements should cause no surprise, whatever one takes “tonal orientation” to mean. Hughes writes that tonal orientation “is meant to be the occurrence of each note and its durational value” (p. 15). But this is not of much help. The unfortunate ambiguity of the word “tonal”—it may mean “pertaining to tone” and it may mean “pertaining to (some formulation of) tonality”—often remains unresolved by the context in which the word is used in this thesis. I propose that,
in future writing, "tonal" be reserved for "pertaining to tone," and would introduce "tonalistic" for "pertaining to tonality."

The crucial questions that an evaluator of Hughes's work must ask are: What are Hughes's hypotheses? What measurements does he extract to test these hypotheses? Do these measurements, or data computed from them, confirm or infirm the hypotheses? Was Hughes's laborious data-collection effort necessary, or are there simpler ways of obtaining the same results?

We find that Hughes neither articulates any specific hypotheses about Skriabin's preludes nor puts the data he has collected to any significant use. Indeed, all that Hughes provides, besides the data he obtained by following the eight steps and an introduction to and explanation of these steps, is: a list of the 80 Skriabin preludes arranged by most important scale-degree (e.g., tonic, dominant, flatted supertonic) in the Step-3 sense (pp. 23–24); a list of these preludes, classified by circle-of-fifths location in the Step-6 sense, and sub-classified by key (pp. 190–195); and a list and graph of the Step-8 figures arranged by increasing opus number (pp. 196–198). Hughes's comments on this graph, the culmination of his thesis, are:

Since the 0 line is a result of a subtraction of Step 5 from Step 7, 0 indicates the axis of tonal orientation, above or below which every tonal composition has to be placed. This chart shows the development of Skriabin's style in this regard. It is important to notice that Op. 11, No. 15, an entirely diatonic composition, is one of the three Preludes placed on the 0 axis, and that the deviations are very slight through Op. 37. The first major departure from tonality . . . occurs in Op. 33 where orientation begins to be conceived in terms of the Skriabin Chord. Then in Op. 35 and Op. 37, this consistent development of tonal orientation regresses. But this regression is momentary as a striking attempt toward atonality is described in Op. 39 through Op. 74. A comparison of other composers, by this procedure, is a task for future research (p. 198).

Surely the fact that Skriabin's later preludes are more "chromatic" than his earlier preludes was well-known before Hughes; equally surely, Hughes's methods have achieved no noteworthy quantification of the situation, and a graph such as Hughes's last graph, which looks comparatively placid on the left end and comparatively inquiet on the right, could have been produced by sampling methods that would not have required Hughes to spend so much of his time as a computer. And surely Hughes deserves criticism for having become engaged in a data-collection procedure of this magnitude without clear hypotheses, without justification of the unconventional measurement criteria, and with hardly any comment on the results other than "they are here."

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Eva Eggli
Probleme der musikalischen Wertästhetik
im 19. Jahrhundert: ein Versuch zur schlechten Musik


Edward A. Lippman

In this compact and interesting study Dr. Eggli searches for the criteria according to which music was adjudged poor in the 19th century and also for criteria of this kind that can be considered applicable in any musical epoch. The bulk of her dissertation is understandably devoted to a history of the origin and spread of poor music and to the critical reactions it provoked. Finally, there is an aesthetic analysis of four indisputably offensive examples that are printed in a musical appendix.

In using the term "bad music," the author intends to designate collectively many different kinds of inferiority, but she specifically excludes music that is poorly made as somewhat apart from the problem. Nineteenth-century concepts and definitions of poor music do in fact reveal various kinds of evaluation, making it evident at once that purely aesthetic considerations are often not in question, but social, ethical, stylistic, or cultural categories instead. We are accustomed to evaluate music according to feeling, Dr. Eggli points out, at least as far as the 19th century is concerned: but evaluation of this kind is strongly dependent upon personality and could usefully be supplanted by a more definite procedure.

What is musical value? the author asks at the outset. In what does it reside? She reviews various answers to the question. It has been regarded as objective, as depending—to take a major instance—on complexity of structure or on obstructions to a smooth and predictable course. The smallest value would accordingly inhere in music that was composed of a regular and simple flow of elements. But then most music for a larger public, and even many works of Mozart, Dr. Eggli holds, would be judged poor. It has been said, with perhaps more justice, that musical value will inhere chiefly in the most conspicuous element of the work under consideration, which is usually melody (especially in 19th-century homophony). Melodic value, furthermore, will rest largely on rhythm. But these principles only direct us towards our goal, they do not enable us to reach it. Even if we keep them in mind when we conduct our analysis, we shall again be confronted eventually with the insufficiency of objective criteria. Indeed, if music presents import or contains significance, its value would seem to be undefinable in terms of its objective properties alone. As a minimum our musical habits, experience, education, and understanding must be involved, as well as some stylistic frame of reference, and even the qualities of the performance of the work. Historical awareness and aesthetic attitudes are also brought into
play, and there are more transient factors of relevance in our state of health and readiness to listen. The composition itself may contain text, dance, or drama—components that certainly influence its value—while external larger factors of importance are its suitability to its social role, its place in furthering historical trends, its reflection of the personal style of its composer, and its individual distinctiveness.

After thus considering value in general, Dr. Eggli proceeds to the notion of kitsch, doubtless the most comprehensive designation for the various kinds of lesser value found in the 19th century. Again she considers several definitions of the concept: kitsch is described as inauthentic, shallow, or seductive. Most interestingly, it is said to lack autonomy, to arise through the consumer, so that its history is the history of its public. It is in particular a product of bourgeois leisure, a reaction to the demands and central importance of workday activity. In the sentimentality that characterizes kitsch, any feeling produced by the music becomes simply a means to incite or further a self-perpetuating process in which the listener is affected by his own sentiment. Accordingly, there is no music that can escape utilization; any composition is susceptible of being transformed into kitsch. To the uncultivated kitsch is not known as such, and it can be recognized only by historical sensitivity and comparative evaluation. Typically it will reveal itself in hackneyed, pretentious, or inflated motifs, in the combination of large means with trivial material, or in the attempt to achieve a grand effect with such material. If disproportion of this kind can be discovered by objective procedures, other properties—saccharinity, insinuativeness—can be detected only by aesthetic feeling. Finally, kitsch can be produced by synesthetic correspondence, exoticism, or even by the environment of a work when it is used in conjunction with a drama, for example, or placed in a novel setting such as a coffee house.

All these theoretical considerations are made more precise by the following historical section of the dissertation, while at the same time, other kinds of "badness" are subjected to examination, notably the empty mechanical quality connected with virtuosic piano music. Dr. Eggli arranges her historical discussion in seven divisions which succeed one another logically and seem to cover all of the important aspects of the problem: the bourgeois musical culture of the 18th century with its demands of simplicity, universality and naturalness and its interest in mechanical techniques of composing; the crisis and decay of musical taste in the 19th century; the influence of the piano and its superficial literature on musical taste; the low quality of piano instruction and methods; the decline of salon music with its interest in effect and its unmotivated titles; the dependence of piano music on opera; and the influence of virtuosity on music and on public taste. In her summary the author concludes that most criteria of value are relative to the era but that there also exist absolute criteria. Poor music will always contain or involve some kind of disproportion, produced characteristically by a change of environment or by an incongruence of means and purpose such as the emphasis of externals over import. There will thus be a destruction of unity: one of the elements within the work will predominate, or the environment or public will change, producing a stylistic, interpretive, or sociologic dislocation that will lessen or destroy the original value.
To complete the logical progression in concreteness from theory to history to analysis, the dissertation closes with an examination of the *Gebet einer Jungfrau* by Badaczewska, an *Air Suisse* of Adam, the Bach-Gounod *Méditation*, and the Liszt transcription of Schumann’s *Widmung*. The illustrations are well-chosen and produce an interesting composite reaction—in the modern listener—of irritation, amusement, and incredulity.

Certain features of Dr. Eggli’s book are rather too obviously reflective of the schoolroom: the regular alternation of statements and supporting citations, for example, and a heavy reliance on the opinions of others (which are presented in turn with little comment or evaluation) instead of the independent organization of ideas or the clarification of basic issues. But these perennial properties of dissertations possess at least the virtues of honesty and accuracy and are hardly to be considered serious blemishes. For the rest the present study is an excellent example of what musicology should more often be: it has a broad social perspective, it expands the traditional subject matter of musical history from elevated types of music to more humble kinds, and it turns our attention to matters of value in addition to those of style. This is a course most highly to be recommended, both for its own sake and for the light it casts on the very greatest achievements of art. How much more actual the world of Mendelssohn, Chopin, or Schumann becomes when we have read a study of this kind; and how much more we know of these composers of the first rank. For to know their artistic and social world fully, as Dr. Eggli’s work will demonstrate, is also to understand their music more completely.

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*James Tenney*

*Meta (+) Hodos: a phenomenology of twentieth-century musical materials and an approach to the study of form*


*John R. White*

The *Met-hod* of this paper may be called Martian. Examining the audible fabrications composed, executed, and heard down here, Tenney reports back on our present peculiar habits in disposing sound phenomena, perceiving their arrangements, and as we say we do, making “sense” of them. His descriptions are accurate and insightful, though on the whole he has to take our word that it all means what we say it does.

This is the phenomenological approach: to assume a naïve, know-nothing stance and to describe anew and in great detail the factors of a par-
ticular experience. The end in view is a fresh conceptual framework more nearly true to the reality of the experience and undistorted by prejudices and inappropriate habits. That the most interesting 20th-century music and much older music sorely needs this treatment should be obvious. On the elementary level most of our notions are negative and useless, such as "atonal" and "athematic." Advanced discussions along the lines of "How I Wrote My Last Piece" impart information of an entirely different order from the information gained in the auditory experience. Tenny is solely and seriously concerned with what is heard in the newer music and to what effect. He has made an important beginning that deserves wide discussion.

He is admittedly indebted to ideas and approaches in the Gestalt psychology of Wertheimer, Koffka, and Koehler. They come to his assistance in the formulation of the main notions of his conceptual package and the devising of a descriptive terminology unclouded by memories of the past. Melody, harmony, accompaniment and such notions, even where they may linger on as remnants in new music, are replaced by "musical parameters." A bit of motivic development in the old-fashioned way becomes a "metamorphic sequence," showing "the relation of partial similarity between two sound-configurations revealing or implying some kind of morphological transformation by means of which one was or might have been derived from the other." Tenney differentiates seven parameters of sound-configuration: pitch, loudness, timbre, duration, temporal density, vertical density, and time-envelope (only the last needs his explanation that it concerns the attack and decay of an elementary tone); but he leaves room for more in special cases, such as pitch-range, degree of parametric articulation, etc. Following through, I think he should have designated these other possibilities "paraparameters."

The extreme liberality and variability of parametric "focus" and parametric "scale" in new music lead Tenney to the central problem of his paper. What is a musical idea in these new terms, and how do these ideas go on? In his words, "we must admit a 'material equivalence'—with respect to their potential function (as musical ideas)—of much greater variety of sounds and sound-configurations than would have been justified or necessary in pre-20th-century music. . . . Whether a given sound or sound-configuration is to be considered merely as an element or as a more self-sufficient musical idea depends almost entirely upon the musical context in which it is heard. There is virtually no objective characteristic of the sound itself which can show the analyst in which of these two categories it ought to be placed. Only its function in the larger design can reveal this."

From here on Tenney's considerations are entirely contextual, translating into terms of a complex auditory situation the Gestalt-ideas of Wertheimer's very important Laws of Organization in Perceptual Forms (1923). For any given musical experience he takes a running account of parametric profiles (at least seven), any one or several of which will tend to form "sound-units" (cohesion) and to make distinctions between sound-units (segmentation) according to laws of (1) "proximity," (2) "similarity," (3) "intensity," (4) "repetition," and the special cases of (5) "objective" and (6) "subjective set." All are self-evident except (5) and (6). The word "set" is used to mean a pre-existent attitude involving expectations or anticipa-
tions which may effectively determine or alter the perception of present and future events. "Objective set" refers to expectations arising during and out of a particular musical experience, while "subjective" set refers to those pre-conditioned attitudes brought from prior experience. These elegantly simple propositions are extremely useful, and a present reader may be attracted to the author's detailed explanations if he will think through the "significance" of a few familiar parametric profiles of some tried and true classic. The beauty of these concepts is that they are valid for all kinds of musical experience. And especially can we better deal with the distractions of "subjective set" when we name it and admit its presence most of the time!

Cohesion and segregation are the "facilitating conditions" that determine the perceptual organization—that is, the internal unification and mutual separation—of musical ideas. To an "idea," a primary musical unity composed of elements (parametric bits) but forming a singular aural gestalt, Tenny assigns the term "clang" and holds this to be the core of his conceptual approach. He likes its connotations of complex and dissonant "ringing sound" and is obviously unaware of the distressing overtones it recalls to readers of Riemann's *Harmony Simplified* in English (where overclangs are major chords and underclangs are minor: the contraclang of a principal clang is an underclang). This mid-20th-century "clang" may be a thematic motive in the old-fashioned sense, or a voice in a polyphonic ensemble, or a chord in Schoenberg's Opus 16 No. 3, or rhythm plus timbre in Varèse's *Ionisation*, etc. The only thing common to all clangs is their perceptual immediacy and singularity. A succession of clangs which tend to join up on a larger perceptual level and form a larger but weaker gestalt Tenney calls a "sequence." Elements form clangs and clangs form sequences—each step is delineated by the intersections of parametric profiles, by "heard" factors and no others. If indeterminate and accidental, complex musical events are perhaps not "ideas" but nevertheless form elements, clangs, and sequences according to Tenney's propositions of perceptual organization. He is quite as prepared to handle the music of Cage as that of Webern.

As his title indicates, the author approaches a morphology of musical experience through his clangs and sequences, and his paper concludes with some tentative but very pregnant statements about musical form, which is not in his view unity and coherence, relatedness and recapitulation, but quite the opposite: shape and structure, which in a temporal sense will be revealed only by the perception of differences. I choose only a few points: "The form of a musical configuration is primarily determined by the effective differences between its successive parts. . . . All parameters must be considered, and any parameter may function as the primary determinant of form. . . . The formative parameter in a given configuration is generally distinct from the cohesive parameter in that same configuration. . . . All parameter profiles are transposable." Such ideas fall over each other as they crowd in at the end of his paper. I would urge that his concluding pages form the beginning of another, yet more ambitious work. He nowhere quite says so, but the larger aspects of form among ever weakening gestalten must fall back on the convenient laws of cohesion and segregation that combine elements into clangs and clangs into sequences.
One may welcome and recommend the reasoned arguments of Tenney’s prolegomenon without going along with his musical analyses, drawn from Ives, Ruggles, Schoenberg, Webern, and Varèse. To analyze clangs and sequences in a score (as distinct from a hearing) is to decide on performance articulations, relative weight and direction, and minute differentiations in volume and attack—what was once called “phrasing.” One performer’s clang may be another performer’s element. Tenney’s three clangs in the twenty-third measure of Opus 11 No. 3 make “choppy” music to my way of thinking Schoenberg’s long Brahmsian phrases in this movement, and measure 23 I see as part of a 2 1/2-measure polyphonic sequence with differentiations of pitch-range requiring the most careful differentiations of “touch” between the pianist’s hands.

The longest illustration, to which Tenney gives four pages of discussion, is a complex polyphonic passage from “Emerson,” the second and third systems of page 3 of the Arrow score of Ives’s *Concord Sonata* through the entrance of the Fifth Symphony motive on system four. All his parametric profiles do not lead him to correcting the misprint in the score. The first left hand A in the lowest stave of system 2 should be A-flat: by similarity with the five preceding repetitions of this “clang” in the right hand and by the fusty observation that the harmonic sense of the whole passage is “dominant-minor-ninth to tonic” stated twice in C and four times in B-flat.

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**Hannes Reimann**

*Die Einführung des Kirchengesangs in der Zürcher Kirche nach der Reformation*


**Elwyn A. Wienandt**

A dissertation that undertakes an examination of what seems to be only a local development, one that has been copiously examined in the past, would seem to be another example of an author beating a dead horse. In this instance, however, we are treated to the results of a thorough re-appraisal of the events culminating in the restoration of organized singing to the religious service in Zurich. Reimann reviews the literature that has accumulated over a period of nearly a century, adds the results of his investigation of manuscripts from Winterthur and Zurich, and evaluates the matter anew with a fresh approach to the influence of Raphael Egli on the development of the reinstated musical practice.
Huldrych (Ulrich) Zwingli (d. 1531) completely divested the religious service in Zurich of its liturgical components except for the quarterly observance of the Lord’s Supper, removed the ornament of congregational music from worship by destroying the cathedral organ, and in 1525 took away the choirbooks from the church so that choral singing was also effectively stilled.

Reimann traces the efforts to justify singing in the church between that date and 1598. A decade after Zwingli’s death there is evidence of school children singing on the major holidays, but not until 1571 does a document outline a procedure that calls for their regular appearance in church to perform psalms and other religious songs. However, as early as 1533 there were songbooks in print, some of them going into several editions, indicating a wide acceptance of the songs. Their appearance continued to be marked by theological dispute over their suitability, most of the argument revolving around a few passages of Scripture. It is taken for granted that the reader recognizes the unique position of Zurich in relation to church music and knows that the situation in Bern, Basel, Constance, and other places was markedly different.

Reimann’s most significant contribution lies in a careful analysis of the place held by Raphael Egli (1559–1622) in the reorganization of Zurich’s musical practice. Earlier writers have tended to overemphasize Egli’s importance, but Reimann brings new sources to bear in placing him as one of a group of important figures. Egli was familiar with the practice of psalm singing in Geneva as well as with the Genevan Psalter itself. He was, in fact, a student of Theodore Beza during his years in Geneva. In 1588 he went to Zurich where he achieved considerable prominence, and it was there that he wrote the *Bericht vom Kirchengesang* in 1597 (printed in full by Reimann as an appendix), in which he stressed the desirability of congregational participation in the singing, basing his argument partly on the passage in Colossians 3:16: “Let the word of Christ dwell in you richly in all wisdom; teaching and admonishing one another in psalms and hymns and spiritual songs, singing with grace in your hearts to the Lord.” An inevitable controversy arose over the proper interpretation of the phrase “in your hearts,” but the case for audible praise eventually carried the day.

The year 1598 is of signal importance to the Zurich musical practice. It marks the appearance of another important document on singing, of the first official songbook, and of the first musical service, probably with monophonic singing and certainly without the help of an organ. The document is that of Hans Jakob Murer, who again questioned the propriety of congregational singing and answered his own question with three requirements for an acceptable type of music:

1. The songs must be neither too long nor too short, and they must not encroach on the sermon (*Predigt* sometimes denoted the entire service, so the meaning here is open to more than one interpretation.)
2. They must be in the vernacular, so that all may understand them.
3. The melodies must be simple, reflecting the speech-song of the early Church which distinguished little between reading and singing.
The songbook, *Kirchengesang der gemeinen und gebreüchlichen psalmen, festgesangen und geistlichen liederen, nach der teutschen melody für die kirchen Zürich getruckt*, contains more than a hundred pieces, among them psalm settings and seasonal chorales, most of them with the music printed as well as the text. None of the melodies is described by Reimann.

There was no direct prototype for the service that performed on Pentecost of that year, so its musical content was probably that which could have been added without interfering with the established form of the service. It cannot be said whether the new songbook was available as early as June 4, the date of Pentecost that year. Reimann speculates that, lacking the book, the children would have been called upon to sing from other available books. He includes also an Order of Service from 1563, assuming the possibility that it was still in use at the later date.

It is unfortunate that a work of this scope contains not a single note of music. The discussion is aimed at procedures and customs, but it is impossible to consider these thoroughly without reference to the music itself. A good piece of work is limited by the absence of more detailed musical discussion.

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