Considerations Preliminary to the Formation of a Textural Vocabulary

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One result of the diversity of compositional approaches today is the concomitant reassessment of primary and secondary musical elements. The time has long since passed when the theorist could automatically assume that melody, rhythm, harmony, or a combination of these elements would unquestionably be of primary importance in the creation of musical form, while texture and timbre, the two stepsiblings, would merely play secondary roles. Texture in particular has become a dominant musical element. Yet rhythm, harmony, and melody all have sophisticated analytical vocabularies, while texture has but a handful of useful analytical words (thick/thin, sparse/dense) and a plethora of blatantly descriptive words (celestial, somber, dark, light) at its service.

Ordinarily, one would presume coincidence between the development of concepts about any subject and the vocabulary to express those concepts. In the case of musical texture, the assumption cannot be made. The nature of music poses problems unlike those associated with other analytical fields. First, the manner in which musicians communicate about music allows a shared nonverbal understanding of musical concepts. Second, vocabulary developed in conjunction with concepts about musical texture often lacks characteristics basic to effective communication, rendering it less useful than expected.

If people learned about music solely by means of words, concepts and vocabulary would necessarily develop simultaneously. However, nonverbal concepts about music can develop through interaction with the music itself, and musicians can demonstrate their understanding of new musical concepts in a variety of nonverbal ways; by conducting or related gestures; by mimicking the outward expression of an idea on an instrument; by nonverbal communication. Each of these methods, however, conveys conceptual meaning only to an audience physically present, and the means is transient. While the concept will not be forgotten, the explanation of

the concept must be recreated for others.[1]

The music analyst tries to convey these concepts to the wider audience of those not physically present; therefore, he must rely on more permanent means of communication. In the more general sense, then, people do know and learn by means of words, but the concepts to be known or learned can predate the words to express them.

Two preliminary problems confront the analyst concerned with textures's vocabulary: the nature of texture and the way people learn and remember words. Consideration of these problems must precede any attempt at creating or supple- menting texture's vocabulary.

Texture differs from those elements once designated primary by the degree to which it can be separated from other available elements, by the nature of its definition, and by the means available to assure clear communication about many of its features.

Pitch, rhythm, and harmony all can be easily separated from their musical environment for discussion's sake. In working with pitch, for example, there is no difficulty separating a note or an interval from a musical passage. Texture lacks this quality of separability, or discreteness. No matter how important to the structure of a composition, texture appears to be primarily a resultant element, one fashioned out of combinations of other elements.

The difference in texture's composite nature as opposed to the simple nature of primary elements becomes quite clear in the attempt to formulate a definition for texture paral- lel in structure to those commonly given for the primary elements: Rhythm is . . . ; melody is . . . ; but what _is_ texture? Wallace Berry attempts to solve the dilemma of parallel definition in the following manner:

> The element of _texture_ might be said to consist _in events_ _by_ _which_ _the_ _interrelations_ _of_ _lines_ _or_ _other_ _co-functioning_ _components_ are conditioned, but the textural element is also regarded as in- cluding such factors as _density_ and _space_.[2] (Italics mine.)

Yet despite problems of definition, the musician rec- ognizes texture as a definable element. The words musicians use to discuss texture merely reflect the difficulties of separation and of definition.

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[1]Concept explained to me in conversation with Joseph M. Foley, M.D., past President, American Neurological Society, March 15, 1980.

[2]Wallace Berry, _Structural_ _Functions_ _in_ _Music_ (Englewood Cliffs: Prentice-Hall, 1976), p. 23.

Textural terms are intimately bound up with the pitches,
the rhythms, even the complexity of events that together
create a particular texture. However, pitch, rhythm, and
complexity do not describe all aspects that may create a
particular texture. As a result, the vocabulary used to
describe texture for analytical purposes has been just that:
descriptive.

Descriptive words associated with texture lack the rigor
of definition necessary for specific communication, i.e.,
communication in which the first person knows by verbal or
nonverbal response that the second person understands
precisely what has been said. This quality of specific com-
munication will be referred to as "mutually understood" com-
munication.

Traditionally, analysts have tried to cover the gap
between analytic vocabulary for primary elements and neces-
sary explanation of textural manifestations by binding
together descriptive and analytic words. However, descrip-
tive and analytic words are by no means mutually inclusive
categories. As a result, a type of double standard in
analytic vocabulary has evolved: one for primary elements,
another for resultant elements.

Some theorists have tried to create analytic words to ex-
press concepts of texture. However, vocabulary developed in
conjunction with theoretical concepts and designed to
fulfill the criteria for a logical vocabulary often succeeds
or fails on grounds other than logic; if a vocabulary is to
succeed, it must be acceptable to the musicians most in need
of it.

The problem faced by some theorists is that the more
analytic their words become, the more they lose the immedi-
acy and power of the descriptive word. Just as Hindemith's
classification of chords is rarely remembered without ef-
fort, the exact meaning of the words "contraintervallic tex-
ture" is equally dissociative and inclined to create more
confusion than clarity.[3]

Berry has developed a very logical group of words to
serve his excellent development of textural concepts, yet he
is the first to admit that his choice of words might not be
the best choice for everyday use:

> One is reluctant, as always, to make the problem
> of terminology a central issue; nonetheless, a
> part of the business of music theory is lexical,
> and words (along with some concordance of under-
> standing as to what they signify) are essential to
> discourse. Complex hyphenated terminological
> forms which follow from the system outlined here

[3]Ibid., p. 194.

are rarely needed (but are nonetheless logically
plausible and fitting); and it is always possible
to describe events, even though terms of textural
conditions and classes are a useful convenience.[4]

During an era in which texture plays an increasing role
in our perception of music's form, it would seem in-
creasingly important to develop an analytical vocabulary for
texture equal in validity and clarity to the language used
for music's other elements, and as acceptable to everyday
parlance as Berry's development of textural concepts.

In the normal course of events, words are created when a
situation, object, or relationship arises for which there is
no existing word. In everyday activity, this method has
proved quite satisfactory, even in the hodge-podge of our
English language. However, a logical or reflective language
ought to have some criteria for its vocabulary. The
criteria suggested are deceptively simple:

1. The vocabulary should be mutually understanda-
   ble.
2. It must describe in a way that is both accurate
   and capable of growing to include similar con-
   cepts and/or occurrences.
3. It should be capable of interconnection with
   past and future vocabularies.

In short, it should be meaningful.

But, what is "meaningful?" How does one decide that a
word is both accurate and establishes connections with other
words already in use, if the accuracy and the connections
must be equally obvious to someone other than oneself? By
what criteria or guidelines can one make an intelligent
decision that a word will be "mutually understandable" if
there is no external means of verification?

Various approaches have been applied to this essential
problem of learning, knowing, and meaning during the last
thirty years: most prominently, the philosophical, the
psychological, and the linguistic. In addressing the pro-
blem of "What does music mean?" some philosophers and
psychologists have been concerned with a different kind of
meaning than that required to build vocabularies. The rela-
tionship between the affective qualities of music and the
music itself has been a matter of keen speculation among
philosophers, and psychologists have gathered data about
subjective reactions to music.[5] While these studies are in-

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[4]Ibid., p. 191.
[5]Psychologists have broadened their areas of inquiry to
the point that the term "psychologist" refers to an academic

teresting, they are clearly beyond the scope of this essay.
Work in linguistics seemed at first to be promising, since
music is a language in the sense that it does have syntax.
However, the lack of specificity found in other languages
has shown linguistic techniques to be inapplicable to the
type of analytical thinking that concerns us.

One approach that seems much more valuable to the music
theorist's work is that of the neurophysiologist. Together
with the bio-scientist, the theorist shares a concern about
the technical process by which the mind learns to recognize
events and organize them. The mutual concern deals not with
what is beautiful or has significant form but simply with
how the mind concludes, in effect: "This is important; I
want to remember this; this piece of information seems to be
linked to something else I just heard." These are not
manifestations of theories of value but of neurotechnology.

One neurophysiologist, Karl Pribram, explains the
technology of the brain by using the model, or simile, of
the computer.[6] While the brain and its technology for
knowing are infinitely more complex than any computer, the
model of the computer seems to provide clearer insights than
any of the work done in psychology or linguistic theory.

Pribram explains perception and knowledge in a way
peculiar perhaps to those of us not in science: "Knowledge
. . . is codified information consensually validated."[7] All
knowledge must be presented to the brain in some kind of
form that it can absorb, i.e., a codified form. Further, it
must not be contrary to what the brain has already found to
be true through its own direct senses and previous ex-
perience.

What can be learned, what can become knowledge, depends
as much on context as on the significance of the given item.
For example, one can repeat something one hundred times and
still not know it, while one can remember something the
first time if it is linked to something already known. What
must be recognized is not that repetition helps, but what
kinds of repetition in relation to context and content help
one to learn or to know.   It is not repetition, then, but
patterns of repetition, or coding, that determine what is

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absorbed as knowledge. If the contextual or associative
patterns that enhance efficient learning are understood,
more efficient modes of transmitting knowledge or insight
are possible.

In musical terms, our knowledge of a composition is
dependent upon the ways context molds content into success-
ful codes, and our ability to discuss or speculate upon our
musical knowledge is dependent upon the successful linking
of words, or groups of words, into efficient codes.

Pribram presents a theory of the physiological process of
knowing that divides different types, or sophistications, of
knowledge into groups known as images, signs and symbols.
First, Pribram postulates that the brain is similar to a
computer and that knowledge consists of the encoding of ex-
perimental sequences into codes that the computer-brain can
process. The brain achieves additional sophistication in
coding through the ability to alter chemically the physical
state of the group of neurons that act as receiver, both by
acting as inhibiting forces on each other and by self-
influence of the amount of time a member-neuron is able to
take to receive the message. The result is an ability to
process codes at a highly sophisticated level.

To Pribram, images represent relationships between
events, not events themselves. Imaging is a rather simple
neurological process that involves the relationship between
those neural impulses just described. The relationship that
imaging represents can be described through the experiment,
in which a subject is fitted with prism goggles that invert
his visual field. The amount of time it takes the subject
to become accustomed to the new visual field shows his abil-
ity to image, or to recognize the association between two
different but related visual representations of the world.

Both signs and symbols differ from images in that they
involve a more complex neurological process. Signs, or in-
dexing, take Pribram's neural "alphabet" and make it into
"words." Signs also have a communicative side, since they
can be expressed at least in part and be mutually under-
stood. Symbols involve a higher-level interaction between
images of relationships and images linking relationships to
feeling. Still, man seems to go one step further by using
signs arbitrarily. To quote Pribram:

> A still more remote coding operation constitutes
> linguistic knowledge. Man, by indicating the
> significance of Symbols, indexing, labelling them,
> can communicate shared feelings. This facility
> proves to be a potent stimulus to expanding the
> communicative effort. Man can also make symbolic
> use of Signs, substituting physical, biological,
> or experimental disposition or through social
> usage. The power of the logical linguistic know-

ledge thus achieved is countered by its remoteness
from that which is to be known. _At its best,_
therefore, knowing becomes a web constituted of
linguistic, derived and immanent knowledge proces-
ses, none of which are sufficient in and of them-
selves.[8] (Italics mine.)

Two aspects make this model different from traditional
linguistic ones. First is Pribram's emphasis on the value
of man's arbitrary use of signs and symbols and the value of
such flexibility in the development of logical symbols. In
the traditional mode, theorist-philosophers have inevitably
become enmeshed in the differences between the spoken
language, which has both strict vocabulary and syntax, and
music, which lacks a strict vocabulary and whose syntax is —
especially in the twentieth century — often applicable only
to one piece or group of pieces.
        Second is Pribram's partial answer to our original ques-
tion: what is meaningful?

        I would suggest, therefore, that both Indices and
        Symbols derive meaning to the extent that they can
        be employed to evoke Immanence. As in Charles
        Peirce's theory of meaning, this gives primacy to
        an abductive form of reasoning: What I should
        today call hypothesis formation by analogy as
        against reasoning by deduction or induction. This
        is not to deny the importance of deduction and in-
        duction — only to deny them primacy.[9]

What Pribram suggests, among other things, is that the
process by which man forms language is not logically induc-
tive or deductive but based on a pattern of analogy. In
order to thoroughly understand the formation of language,
both knowledge of neurophysiological activity and knowledge
of analogies, or abductive reasoning, would be necessary.
While Pribram's answer to the problem of meaning is the
least complete aspect of his theory, and the least practica-
ble at this point, it is the most exciting.
        Pribram's epistemology does have flaws. First, the
research and data upon which he bases his theory are solely
his own and lack the corroboration of duplicate testing.
Second, there are many questions about the process oof
deciding that remain unsolved. Finally, very recent studies
into how man knows postulate that the use of the computer as
a model of how the brain functions is far too simplistic and
should be discarded. Yet, a better model has not been ac-

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[8]Royce and Rozeboom, p. 460.
[9]Ibid., p.461.

cepted. While Pribram's model may well be an oversimplifica-
tion, it does not necessarily make the model or the theory
false for our purposes. For the music theorist, the ad-
vantages clearly outweigh the defects.

Pribram assumes that communication must be mutually un-
derstood. He explains how what we hear becomes image, how
images are interrelated and associative, and he postulates
how the brain progresses from sign and symbol to linguistic
knowledge through hierarchical coding. Finally, he stresses
the increasing remoteness of hierarchical activity.

                              III

Consideration of the particular nature of texture as
evidenced by the degree to which it is separable from other
elements, its formal definition, and the means currently
available to transmit textural data for analytical discus-
sion has shown the extent to which textural terms are
dependent upon texture's resultant quality. Information
about the effect of neurophysiological action upon
linguistic criteria adds new insight about the nature of the
lexicographer's task. Further definition of the ways we use
words to discuss texture need now be considered.

Pribram's model provides insights of particular use in
the development of new terms and vocabularies. First, while
he states that people use signs and symbols arbitrarily, he
does not state that this is the most efficient means for
creating language; he merely states that in unreflective
situations, people act in such a fashion. Actually, random
words, acronyms, or a series of apt but unrelated words
would be the hardest type to assimilate, to remember, and to
"own," because they have no contextual or hierarchical as-
sociations with previously known words to help the encoding
process.

All pre-existing words about musical texture have already
gone through the process of coding, of being absorbed into a
linguistic framework, and of acquiring hierarchical attach-
ment, whether they were easy or difficult words to encode.
Consequently, it is more efficient to keep present analytic
vocabulary, unless such vocabulary implies blatantly ex-
tramusical or undesirable properties. By tradition, or
mutually agreed-upon convention, the following words are a
part of texture's vocabulary: homophonic, polyphonic,
heterophonic, thick, thin, dense and sparse. Through con-
vention, these words have acquired a certain amount of
meaning; through constant use, they have become attached to
certain textures, acquiring an immediacy necessary to
produce practical and speculative discussion.

Rather than begin again, it would seem more useful to ad-
dress the problem of making these rather vague words more

meaningful by clarifying their existent meanings. Most of
these words have no exclusive meaning; they are used with an
implicit reference to their textural opposite. For example,
no texture is actually thin; it is understood to be thinner
than another, thicker texture, and its degree of thinness is
usually only vaguely and relatively implied. Thick/thin,
sparse/dense, and homophonic/polyphonic are all continua,
with each texture occupying a particular place along its
particular continuum. The task, then, is to identify those
words within a continuum and to find efficient means to
designate a texture's specific place on that continuum, just
as some theorists have done with the continuum con-
sonance/dissonance.

Second, encoded words establish contextual and associa-
tive connections. They are easy to remember, because they
are remembered within a specific context, and they have the
additional quality of encouraging both lateral and
hierarchical associations. Two types of associations useful
to vocabulary are the enrichment of an existing language and
the association of the new vocabulary with an action or per-
ception that the mind already knows nonverbally. For exam-
ple, when teaching a child the word "ball," one usually has
a ball for the child to see, feel, and throw. Once the
child possesses a concept "ball" he learns through pictures
that balloons and balls are both round, and so forth. The
association of ball with balloon increases the child's vo-
cabulary and enriches perceptions of all round objects.
Music vocabulary ought to accomplish similar goals by clar-
ifying existing words or introducing new words within the
context of a specific texture.

Third, Pribram states that language is a highly complex
and remote process, while images are immediate. In creating
a vocabulary, words should be as close to images as possible
— not the image of description but the image of associa-
tion.[10] This suggests that the traditional format for the
transmission of concepts is not equally viable for the
formation of vocabularies. While logical speculation into
the nature of texture requires abstraction or removal from
the constriction of a particular texture, development of
vocabulary demands the immediacy that is conveyed only
through the analysis of specific textures. Immediacy en-
courages yet another safeguard: a clear and standard voca-
bulary for texture ought to serve both the speculative the-
orist and the performer at some level. The performer may
not wish to be involved in the type of thought that delights

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[10]See Karl H. Pribram, "The Four R's of Remembering," in
On the Biology of Learning, ed. by Karl H. Pribram, gen. ed.
Jerome Kagan (New York: Harcourt, Brace & World, Inc.,
1969), pp. 195ff.

the speculative theorist, and the theorist rarely thinks of the performer as an audience, but both should be able to share the same vocabulary.

The problem of textural vocabulary brings additional criteria to those suggested by Pribram's model. Earlier, we stated that texture is not a discrete element but usually a resultant one. Texture is the result of the interaction of such elements as melody, rhythm, and harmony, along with the acoustical properties that are thought to be its particular provenance. How, then, can a textural vocabulary be successfully isolated?

While texture is indeed a resultant element, the interactions that result in what are called "textures" are repetitive, or varied, forms of the same resultant texture. As a result, they stand by themselves as identifiable elements. To speak of them only in terms of melody, rhythm, and harmony would certainly be cumbersome and incomplete. In short, a texture vocabulary recognizes that various elements can act together to create still another element, and that element deserves analytic words of its own.

To discover words proper to the element texture, however, requires not only stable concepts and vocabularies in the other elements but a concentration on how each element contributes to texture. In order to study these relationships, pieces must be chosen in which the resultant texture has a strong relationship to elements whose vocabulary is already developed. For example, it is possible to analyse the relationship between texture and rhythm more easily in Ravel's Bolero than in Boulez's Structures. Once words have been found to describe the relationship between texture and rhythm, the same process should be applied to each of the other basic elements and texture. Only after these basic relationships have been made explicit can one deal with the interaction between texture and more than one element simultaneously.

The complex nature of the element of texture, and the increasing difficulty theorists have found in creating vocabularies that serve both the performer and the speculative musician demand an ordered approach to the problem of vocabulary. Through the examination of texture as a basic element and of the ways in which people learn and remember, it becomes clear that people can know what texture is and how it works, but not have the vocabulary to communicate this knowledge. It is also apparent that people can develop illuminating theories about texture but use a vocabulary that challenges, rather than encourages, understanding. Finally, the traditional method of developing theories lacks characteristics basic to the manner in which people can build vocabularies efficiently.

The intuitive criteria for creating an analytical texture vocabulary stated earlier encompass the guidelines one could

compress from the preceding material:

1. The vocabulary should be mutually understandable.
2. It must describe in a way that is both accurate and capable of growing to include similar concepts and/or occurrences.
3. It should be capable of interconnection with past and future vocabularies.

The study of texture and the way man learns has added the means by which these criteria can be met:

1. The inclusion of present vocabulary;
2. The use of imaging capabilities;
3. The emphasis on associativity.

By using an analytical rather than a speculative format in the search for a suitable textural vocabulary, we can apply Pribram's observations about learning and knowing to the concept of texture.

IV

Through our discussion of the nature of texture and the nature of man's brain, it is evident that lexicographers must find answers to questions of musical vocabulary through the repeated process of analysis rather than through traditional theoretical constructs. At the beginning of a lexicographical search, new words will be tried and old words will be defined more clearly. Not all definitions or words will be successful; as in all attempts of this sort, clarifications and new words will not always prove mutually understandable. However, the method at least gives readers a chance to judge the success of a fledgling vocabulary in relation to music, and to relate the new term to a specific sound-model as well as to a theoretical construct.

Earlier, it was suggested that the terms homophonic and polyphonic belong to a continuum. Imagine, if you will, that you are seated in front of a large stack of music surrounded by three boxes marked "chordal," "homophonic," and "polyphonic." It would take little time to decide which pieces belonged in which boxes or categories. However, if you were asked to take the pieces from the box marked "homophonic" and arrange them along a continuum according to the degree of homophonic characteristics found, you would be making textural distinctions without any present verbal justification.

If homophonic and polyphonic do indeed represent opposite ends of a continuum, then the criteria for these terms ought to be so defined that the degree to which a texture is

homophonic or polyphonic can be designated, however crudely.

According to Berry:

(1) <u>Homophonic</u> would literally denote a condition
of independent voices, but its traditional con-
notation is that of texture in which a primary
voice is accompanied by a subordinate fabric
sometimes interactive in tentative ways, the bass
normally in a contradirectional or other con-
trapuntal relation to the primary voice (or
voices). (2) <u>Chordal</u> is a perfectly acceptable,
and very useful, conventional term referring sim-
ply to texture consisting essentially of chords,
its voices often relatively homorhythmically
related. (3) <u>Polyphonic</u>, while literally meaning
"many-voiced," can serve to denote, as conven-
tionally, multivoiced texture of considerable in-
terlinear independence, often imitative; it is
thus generally understood to have qualitative im-
plications beyond its literal, limited meaning.[11]

Maximum homophonic texture, then, can be measured
simultaneously by the degree to which the melody remains in
the foreground and the accompaniment in the background.
Maximum polyphonic texture can be measured by the degree to
which each voice, or "event," maintains interlinear in-
dependence from the other voices, or "events," so long as no
one voice becomes dominant. Chordal texture would thus be
placed in the middle of the continuum; while still
multivoiced, it lacks the strong single-melody
characteristics of homophonic texture and the multilinear
characteristics of polyphonic texture, although it can dis-
play mild characteristics of both textures. For example,
most hymns are perceived in terms of a top-voice melody
despite their primarily homorhythmic texture; at the same
time, hymns often show mildly polyphonic tendencies through
the individual curve of melodic lines and the use of non-
harmonic tones.

On paper, such a continuum would appear as follows:

		<u>Homophonic</u>			<u>Chordal</u>	<u>Polyphonic</u>				
+5	+4	+3	+2	+1	0	+1	+2	+3	+4	+5

Having defined the ends and the middle of the continuum,
an example is needed to demonstrate one possible means for
identifying homophonic or polyphonic textures more precisely
along the continuum. Below is the theme of Beethoven's <u>Pi</u>-

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[11]Berry, p. 192.

ano Variations in C-Minor (1806, no Opus):

Example 1.   Beethoven, Piano Variations in C Minor
Theme

The first theme, eight measures long, has a homophonic tex-
ture. The task is to determine what features create the
homophonic texture and the degree to which the texture is
homophonic. In other words, at what point on the
homophonic/polyphonic continuum does the theme belong?
First, the opening six measures must be separated from the
last two. The latter are strictly melodic, although with
harmonic implications; by contrast, they set off the first
six measures as highly homophonic.
    Register, spacing, rhythm, articulation, and melodic in-
dividuality contribute to the degree of separateness between
melody and accompaniment. An octave separates the highest
pitch of the accompaniment from the lowest pitch of the
melody. The close position spacing and part-writing of the
accompaniment contrast with the foreground leaps in the
melody. The chromatic descent of the bass also contrasts
with the middleground ascent of the melody, but contralinear
movement in outer voices is common in homophonic writing.
The melody's rhythmic pattern and use of rapid scales em-
phasize motion through the second and third beats of each
measure. In addition, the use of quick scale passages em-
phasizes the extent of the basic angularity of the melody at
surface level. Finally, the articulation markings in the
melodic line, including the rests, merely emphasize melodic
separateness.
    It has taken a paragraph to state the obvious: that this
is a very clear example of homophonic texture. Yet, all
homophonic passages are not so well defined; accompaniment
patterns, similarity in rhythm, ranges, or melodic curve can
modify the degree to which the texture is clearly
homophonic. Again, there are continua of textures which, to
a greater or lesser degree, exhibit homophonic features.
    The question then becomes: is it possible to designate
the degree of homophonic texture, aside from saying "slight-

ly," "rather," "very," or "highly" homophonic in texture?
These adjectives already suggest the continuum. Could we
say, for example, that separation of register, spacing,
rhythm, melodic curve, and articulation are five requisites
for maximum separation of melody from accompaniment, and
simply state the relative position on the continuum, rather
than spend paragraphs defending a placement that is never
given? For the purposes of trial, the texture just
described is +4 homophonic. At the moment, +4 homophonic
means nothing, aside from the specific texture from which
the term was derived. It states the degree of independence
melody and accompaniment achieve in the particular texture.
Should another texture be introduced at +2 homophonic, it is
hoped that the reader would again attach the term +2
homophonic to that particular texture and discover the de-
gree of difference between the two textures concerning the
relative dependence of melody and accompaniment. In this
case, numbers are more useful than adjectives, because: (1)
the precise order of degree of separation associated with
five adjectives would be difficult to remember; and (2) com-
parison of the degree of separateness by adjectives would
inevitably end in "counting" up or down anyway. For exam-
ple, in comparing two homophonic textures, one "highly"
homophonic and one "rather" homophonic, the mind would al-
ready start calculating: "How many degrees of difference are
there between 'highly' and 'rather'?" When numerical judge-
ments would automatically enter the process of evaluation,
it is better to present numbers when the image to be re-
presented is discussed.

   To test the viability of the vocabulary, a second example
is helpful. The twelfth variation of the same set is also
written in homophonic texture, as shown in Example 2 below.

Example 2. Beethoven, Piano Variations in C Minor
              Variation 12.

Although the melody is still in the top voice in this varia-
tion, there is no registral differentiation between melody
and accompaniment. The spacing of voices is evenly distri-

buted, and the articulations are both smooth and similar to the accompaniment pattern. The melodic contrary motion of the outer voices has been replaced by general parallelism. In addition, the melody has lost much of its foreground individuality. Most important, however, the rhythmic pattern of the accompaniment has been changed; the left hand now carries three even beats, negating the separative powers of the melody's once-independent action on the second and third beats. In general, then, this passage has less independence of melody and accompaniment. The one factor not included at this point, however, is the effect of the repetition of a previously heard melody, particularly one heard in so independent a setting as the theme. Obviously, this must be counted into any attempt to create degrees of homophonic texture. One's judgement of homophonic quality is dependent here upon one's earlier perceptions. This passage clearly is a less independent homophonic texture than the first passage; all criteria upon which the first judgement was made are less individualistic (register, spacing, rhythm, articulation). On the basis of remaining registral, rhythmic, and previously perceived melody, one would have cause to say the texture is +1 or +2 homophonic.

Whether the term "+2 homophonic" comes into common parlance or drifts further away than Hindemith's Class II chords is of little matter, for the purpose of this example was to demonstrate a method for acquiring a more precise vocabulary for texture rather than to introduce new textural terms. Through the process of analysis, it becomes apparent that there can be few fixed terms for textures, unless models are sought that designate specific textures. All traditional textural vocabulary has no fixed terms but terms relative to some designated or implied midpoint on a continuum. Thick/thin, homophonic/polyphonic, sparse/dense, degree of complexity -- all are relative terms.

In traditional music, most musicians probably feel the implied meaning behind these basic terms is so evident that extensive analyses of this kind reduce to absurdity the theorist's role. Musicians interested in contemporary music, on the other hand, might argue that we cannot discuss the texture of an entire passage, because textural changes can be quite subtle and should be viewed under a more powerful microscope. What the first group fails to realize is that unless we look at texture in music whose other parameters are quite clear to us, thus limiting the variables, we will confuse texture with timbre or harmonic movement, which is precisely what the second group can do in their attempt to be thorough.

The advantage of this type of vocabulary is that it conforms to Pribram's axioms: it presents new words in conjunction with aural images; it allows for greatest associativity between word and meaning, thus enhancing memory; it refines

the   use of   previously encoded words rather   than creating
strictly new words; and it   allows for the   use of whatever
words work.   In the end, it   matters little whether "rather
homophonic" or "+2 homophonic" becomes part of the general
vocabulary so long as lexicographers recognize the need for
such axioms and processes in the coining and defining of
texture's vocabulary.