Milton Byron Babbitt (so named after his father's two favorite English poets) provides our example of the "trap of the purportedly complex".

Ex. 1 shows the first 13 bars of his 1993 "String Quartet VI". We "see" a score of filigree and some complexity. As often in Babbitt's music, the initial impression is that it is somewhat hard to figure just where to "hang one's hat".

The work begins with an initial "flurry" which has all the trappings of an "upbeat", including a highly specified quantized crescendo (from the beginning to the final eighth note of bar 1); which eighth note is clearly an arrival point, replete with an "f" (*forte*), i.e. a type of "downbeat". No amount of blather can change the "persona" of that first "flurry"; certainly not the matter of how the "flurry" is placed relative to some arbitrary barline.

So from the very start, a contradiction appears between how the music "sings" (or at least yowls), vs. where it sits vis-a-vis the sclerotic barlines.

Why would that be? Quartets there are that, unfortunately, try to eviscerate themselves on the downbeats, while further contorting themselves to play what they believe are upbeats; but Babbitt's use of a constant time signature (in this, and other works) is a choice made at the preference (and presumably convenience) of the group being written for. He could have cared less (in his own music) about a downbeat vs. upbeat metrical dichotomy;<sup>i</sup> and had such "gestures" interested him for his own music, he certainly knew enough examples to draw upon. Yes, his music has "procession"; but not dictated by musical gesture, or nominal time signatures.

More importantly, barlines in Babbitt rapidly become nugatory, given his concerns with portraying similar "musics" at different speeds; for the notation of music at simultaneously different speeds; in a manner that reveals and/or preserves the real shape of the music; and doing so within the confines of single time signatures; is essentially impossible. <sup>ii</sup>

So if, by Babbitt's own admission, the barline is more or less symsham-bolic, often either irrelephant to the flow of the music, or a direct hindrance, what can players use to better orient themselves in time?

Ex. 2 presents guidelines or guideposts showing one approach. Red verticals show where all four members of the quartet have a simultaneous attack (aka a simultaneity); i.e. players MUST be together at those places! These simultaneities are then used to establish a series of time signatures (in red) that may better "group" things than do the nominal time signatures provided. Red verticals are not to be construed necessarily as having structural significance (as discussed in traditional analyses of Babbitt's music), although they may in fact have such significance. For our purposes, red verticals are simply those places where the performers *must* be together, and can regroup with safety, and relative ease.

That being said: points of simultaneity are, or can be, places where manifold thoughts, speeds, units. etc. meet. Points of Simultaneity [PoSs] can also be where ideas, phrases, gestures, etc. end, and then

begin anew. PoSs are, also by definition, different - i.e. in the most simplistic, perhaps even simple-minded, sense, PoSs are the moments when the individual player cedes independence in favor of the group; in opposition to those areas where things need NOT be quite so vertically "tight", and the claims of the individual trajectory become outstanding. If your perceivers, aka your audience, cannot tell the difference between which of these polar opposites is paramount at any given time, you have lost track of the most basic tenet of rhythmic organization.

Comparing Ex.s 1 vs 2, we find that Ex. 1 shows three  $\frac{3}{4}$  measures; plus a fourth  $\frac{3}{4}$  with an additional 16th note; followed by seven  $\frac{2}{4}$  bars, etc. whereas Ex. 2 shows a followed by a followed

Bottom line: if the red verticals (and the blues we will meet in Ex. 3) connect actual simultaneities, whereas the barlines may or may not, to what should we be paying attention? An unheard, impossible to convey (certainly not without distorting the "real" phrases) barline? Or those places where we MUST be together?

Continuing in the steps of Ex. 2, Ex. 3 provides subsidiary "blue verticals" connecting (usually) two simultaneities. These connections show relationships different from that of the reds; and we now need to

decide how to differentiate these internals within the larger "red" phrases. For an example of how this might work, consider the first four notes in viola (va.) in our **16** measure.

There used to be a wonderful New York City Parking Regulations sign that lived on Fifth Av., close to the S.W. corner of 57th St.; which read:

## DO NOT EVEN THINK ABOUT PARKING HERE.

I once asked a cop if people parked there anyway. The answer was "of course". As with that sign, the following caveat too will not be paid attention to. Nevertheless:

## DO NOT EVEN THINK ABOUT syncopating these four va. notes. They are NOT syncopations.

The notes (of vln. II) are simply three values (two dotted 16ths, followed by a dotted eighth) in the nominal (not actual) relationship of 1:1:2; and the va. presents four "equal" valued dotted 16ths i.e. 1:1:1:1. Given an indicated tempo of Quarter Note = MM = 84 (approx. 714 msec per Quarter Note); any dotted 16th = MM = 224 (msec. = approx. 268); and a dotted eighth = MM = 112 (msec. = approx. 536).

Now we ask: what exactly must we do so that the four "equal valued" dotted 16ths convey their "fourness" i.e: do you consider these four to be a "choriamb"? <sup>iii</sup> i.e. an initially prolonged first note; followed by two briefer notes, terminating in a final elongation of the 4th note; or are these four notes just pairs of "trochees" (i.e. long/short real values); or rather "iambs"? (i.e. short/longs)? For all three choices ("choriamb";

"trochees"; "iambs") one may expect changes in the msec. values of the dotted 16th in the area of  $\pm$  10 to 20+ msec.<sup>iv</sup>

All this the performer must judge and evaluate, so as to let each voice speak what it must say!

VIn. II then presents another set of three values in the relationship of 1:1:1 (written as three 16ths of MM. = 336 (msec. = approx. 179); leaving "open" (at a minimum) the implications:

Is this a reference to the 1:1:2 previously presented, but sped up (note the similarity in pitch content shape)?

Is it a reference to the four equidistant va. values of the first beat (vln. II does carry over for a fourth note on the next nominal downbeat), also sped up?

Or something else entirely? i.e. a leading in to the group of "nine" triplet 16ths (even quicker still at MM. = 756 per; msec. approx 79)— that introduces the 3rd red vertical, and a somewhat different "quality" in the music?

And all of the above groupings must be shaped so as to be recognizable as groups of notes, and should not be heard as being placed against a grid — i.e. play WHAT it is; NOT where it is.

One could continue in this vein but ——-

Some people will say that to think shapes will result in rhythms that are not "precise".

"Precise" measured against WHAT? What is your ruler? The grid (i.e. bar-line, or nominal quarter-note, or division thereof) vs. "shapes" at different speeds are antithetical. I.e. if you wish to convey groups of notes, at different speeds, each with their own shapes or contours (such as a group of 3 or 4 notes of nominal identical values), you can not do so to the msec. if your standard of precision is that of the grid.

So what to do?

Fit everything to a meaningless quantized simulacrum of false reality, claiming (spurious) "accuracy"? Or rather let each voice say what it must, but without going so far astray as to utterly destroy all vertical rhythmic relations?<sup>v</sup>

Remember that these four members of the quartet do NOT always march to the same drummer. Some times there needs be 4 drummers; some times fewer; some times the voices combine to form composite rhythms that have significance; some times the voices are synchronous; even simultaneous; some times in conflict; and to assume that one grid fits all (other than in the wholly artificial world of data plotting) is to not understand or appreciate the underlying "conversation" or "gestalt". Yes, it is imperative that simultaneities are (within human capabilities) simultaneous; but other than that, each voice must breathe its own cadences; its own rhetoric; its own syntax.

Also remember, musics occurring at multiple speeds is hardly a new concept i.e. think of Otto Luening's joyous reference to the three great "Irish" composers:

O'Ckeghem; O'Brecht; and O'Dufay;

(as well as many others not Irish)!

Finally, and to not (yet again) invoke the Stravinsky vs. Busoni Scylla and Charybdis<sup>vi</sup>; the problem we have been discussing is not only not new. It is a problem NOT exclusive to music.

When St. Jerome was first translating the "word of God" in to what became the "Vulgate", he ran in to a very similar problem i.e. the literal word of the Bible was considered sacred; and because of that, there were those who argued that one must ONLY do a word-for-word literal translation, as anything else would be sacrilege. But a word-for-word translation of anything can be quite, quite dull; often makes little to no sense in the new language; and sometimes conveys a meaning opposite to that of the original. Jerome's solution was a freer translation which raised meaning, or intended meaning, over the literal word; and for doing this, Jerome received more than his fair share of venom. For the record, I agree with Jerome; and for those who are not really certain what Jerome has to do with Milton Babbitt, for the literal "word of God", substitute the composer's final written version of the composition;<sup>vii</sup> and for "meaning", substitute a method of reading what the rhythm is supposed to be, vs. where it is.

Therefore, do not be blindly, and rather stupidly, faithful to the exact rhythmic notation. Rather, "convey" the underlying thought, and think phrases, "shapes", no matter how the scholars scoff. Without having something to say, and a way to make/speak/shape what you wish to say, no numerology will save you.

Let us now briefly compare aspects of the musical content of the Babbitt and the Haydn from the previous article in this collection; and here is where life becomes amusing again.

Renotation of a Haydn "Trio" can completely change what we sense, smell and/or feel from the music. But is such renotation any more fundamental than Babbitt's disregard of the traditional meaning of time signatures? Or is it the same game played in reverse? And thought about in those terms, are the problems of the Babbitt really all that different from the imbroglio of the Haydn?

The salient question: is this rewriting, this rethinking of Babbitt, truly that different from what we did with the Haydn?

Even in this day and age our notation system is still not flexible enough to provide clear multiphasic rhythmic presentation. But not to have our argument too circular, if Babbitt, and Carter, and Messiaen etc. cannot find a flexible and clear enough notation, what chance did Haydn have to get the point across, given the limitations and restrictions of rhythmic notation of his time?

> Paul Zukofsky Hong Kong, Sept., 2016

<sup>i</sup> Personal conversations.

<sup>ii</sup> As an example of just how horrendous it can become, see: <u>*Purloined Too*</u>.

<sup>iii</sup> That would be my preference, at least as of this writing.

<sup>iv</sup> Obviously, we do not "control" time per se to that level of precision! But in our attempt to convey the "fourness" of a group of four notes, those small temporal differences are both the result, and method, of shaping a group of four.

<sup>v</sup> Two of the greatest insights I ever had about music came from John Tukey's *Exploratory Data Analysis* (Wesley-Addison, 1977). The sections are worth quoting in full, [*my editorializing within square brackets*]:

The lines ruled on graph paper help to make plotting easy, but they do not make plotting effective for seeing what is going on--instead they get in the way of seeing what we ought to see. (Tukey, p.42)

If we want to see what our plots ought to tell us, there is no substitute for the use of tracing paper (or acetate). If we slip a well-printed sheet of graph paper just below the top sheet of a pad of tracing paper, we can plot on that top sheet of tracing paper almost as easily as if it were itself ruled. [*This is what the composer does when trying to squeeze*  the music in to a more or less standard notation. Unfortunately, the composer leaves his graph paper (the whole panoply of time-signatures, etc etc) as part of the score]. Then, when we have the points plotted, some boundary or reference lines drawn, and a few scale points ticked, we can take away the graph sheet and look at the points undisturbed by a grid. [*This is what the performer should do, but rarely does*]. We often gain noticeably in insight by doing this. (Tukey, p.42)

[In addition there is]:

The greatest value of a picture is when it *forces* us to notice what we never expected to see. (Tukey, Preface p.vi)

[Hence all our re-notations].

<sup>vi</sup> See the final paragraph of *Divisions of a Beat* 

<sup>vii</sup> For the record: I have met more than my fair share of composers who could hardly tell the difference between themselves, and the "Almighty". Milton was NOT one of those.