

ПЕДАГОГИКА НА ВИСШЕТО ОБРАЗОВАНИЕ

HIGHER EDUCATION

TEACHING COUNTERPOINT, STRICT STYLE –
A REALLY POLYPHONIC TASK

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Abstract: *This study is focused on multifocal approaches to interpreting and teaching counterpoint in strict style. It discusses differing points of view – concerning musical terms, their origin and application, and their presentation within the possible teaching palettes of music scholars and educators – Fux, Cherubini, Jeppesen, Bellermann, Kennan, as well as some Bulgarian counterpoint specialists – Karastoyanov, Hristov.*

Keywords: *polyphony; counterpoint strict style; Fux; polyphonic species; music theory.*

INTRODUCTION

Teaching counterpoint varies – not only in instruction techniques, principles, tasks, objectives – it is somewhat varied even in its main premise, its purpose. Why and how are we to teach this discipline? Let us establish some ground rules first.

By “counterpoint” one may define different things. Is it a vertical or horizontal structure or event, or maybe a compilation of rules, or even a set of genres, loosely combined around one principle? Or all of the above, called “science”? The answer would somewhat depend on the purpose – who are we teaching this discipline to – and why. Concerning counterpoint, we may discern three different types of student base:

1. Those, whose attention is directed mainly outside-in – the analysts. They would observe, draw conclusions, compare, build extrapolations, etc. In short, they would mostly theorize.

2. Those, who are looking at music inside-out – the practitioners. In addition to analyzing it, they would be most interested how to do it. You may show them how it is being done by others, and demonstrate it yourself to set a practical example.

3. Those, whose focus is neither the first, nor the second – for them this discipline is of a more marginal, secondary significance. It would be realistic to say that students like these are the majority – since, according to education curricula worldwide, counterpoint is a mandatory discipline to all music

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majors. (This does not mean that all students learn it in a unified approach, i.e. as a single discipline, detached from voice leading, for example. More about this below).

To students of the first group, analyses would mostly do the job. To those of the second – exercise. The third category would be prone to tolerate relatively equally the one or the other.

But counterpoint is not always taught as a single discipline. In many cases (mostly in the US and some Western countries) it is only a component of a multi-disciplinary study program with the unified title “music theory”. This is also called a modular approach to teaching theory. In it, based on existing historical examples, the instructor introduces, almost simultaneously, harmony and voice leading concepts, elements of counterpoint, along with a smattering of some form analysis, genre and style, and sometimes elements of folklore, historical tradition, esthetics, liturgy, symbolism.

It would not come as a surprise, probably, that I am not in favor of modular theory. It has, in itself, a noble, “polyphonic” concept – to teach the different aspects of the whole almost simultaneously, taking an existing example, and explaining how these aspects interact with one another, or cause one another: for example, how individual motion in the horizontal brings upon a sophistication of harmony, how sequence platforms or motivic development build up a tonal background and hence, a form, how appearance of a theme in different circumstances defines the concept of sonata, or fugue. It might sound interesting and exciting. But this is only one side of the coin. The other is that teaching this way makes it difficult for a concept to be presented in detail, in its right context, and at a sufficient depth. Students also might confuse a concept belonging to one discipline with another – which, albeit a look at same thing, but from a different angle – is still an animal that does not necessarily meow anymore.

Here is an example¹:



If I am teaching a lesson of modular theory, I would have to explain this from more than one angle simultaneously – for example, I could claim that this is:

1. A set of sixth chords with an alien tone on the downbeat, also with the possible functional progression of S – T – D – T.
2. A chain of appoggiaturas.
3. A “suspension bridge” of mutually resolving suspension dissonances and consonances.
4. A three-voiced canon.
5. A sequence (including a canonic sequence).
6. A three-voiced exercise of J. J. Fux’s fourth species of counterpoint.
7. An intermedia (which it is – between *cantus firmus durchführungen*).
8. An example of a theme borrowed for the intermedia from the *cantus firmus* (which it also is, taken almost directly from the original Gregorian chant).
9. An example of music symbolism – a passage representing “the flowing of the rivers of Babylon.”
10. An example of a choral prelude built upon a Gregorian chant.

And I would be correct, in all of these cases. But will I be understood?

METHODOLOGY

I have studied both modular theory (on an undergraduate level, where it is most widely taught) and also individual disciplines, because of my history of migration from one country to another (to a total of three). So I believe that, based on my experience, I can attempt to compare those two teaching approaches. But this article is not devoted solely to that. Once focused on the individual disciplinary approach, it also compares elements of different teaching systems – for example those of J. J. Fux, Knud Jeppesen, Luigi Cherubini, etc. Here, my main focus is strict style, although I employ some examples of free style as well.

The last ground rule – the difference in styles. It should not come as a surprise, that this science, as unified and contiguous as it looks – is in fact conjoined twins. Teaching strict (Palestrinian) style, followed by free (Baroque) style would resemble teaching driving – but first how to drive a car in Europe, and then – in the Great Britain. There might be rules that are equally important for driving in both countries (the use of blinkers, for example), but differences are crucial too – in the UK I was nearly run over when, crossing the street, I looked to my left to check for incoming traffic. Once having established that the fourth is a dissonance in the strict style, now we have to learn a new skill – how to yield before taking a right turn².

This is why I shall describe and compare some examples of strict style – and discuss both their comparative significance and methods of them being taught.

RESULTS

In both modular and singular study, students usually begin with Fuxian exercises^{3,4}. Such are quite short in the modular course. Moreover, it is not always clear whether these are really concerning strict style, or to what extent. One typical example of such pedagogical approach is Kent Kennan's *Counterpoint*. (Kennan 1999). Here the "polyphonic species" are present, but in quite a different way from Fux's *Gradus ad Parnassum*. Here is an example of Kennan's "first species" (Kennan 1999: 37):

The image shows a musical score for a counterpoint exercise. It consists of two staves, treble and bass clef, in 2/4 time. The key signature has two flats (B-flat and E-flat). The exercise is divided into six measures labeled 'C.F.', 'a', 'b', 'c', 'd', 'e', and 'f'. Below the notes, intervals are marked with digits: 8, 5, 5, 3, 6, 3, 4, 8, 8.

This example is deliberately constructed to point out possible student mistakes. Before mentioning them though (as seen by Kennan), I would point out some peculiarities of his approach:

The examples are not modal, they are tonal, since we are dealing with the 18th century tonal tradition, chromaticisms are possible. Key signature is present.

Time signature is present too (Kennan also gives examples of second species in 3/2, and third species in 6/4), emulating a genre, or a piece, in contrast to the "anonymous" whole notes, built to slightly resemble Gregorian chant, in Fux.

"Old" clefs are avoided (no C clefs, for example, or Bach's favorite – the "French" G clef based on the first line of the staff).

In addition to horizontal and vertical check (intervals in the vertical are marked with digits between the two voices), Kennan analyzes this exercise's functional logic – i.e. this may also be interpreted as a two-voice harmony and voice leading exercise.

Mistakes found by Kennan:

1. "At *a*, the 5th is a questionable choice as interval." (Kennan 1999: 37). Why? It does not contradict any polyphonic rule. However, as I mentioned, this is not just an exercise of writing horizontal lines. Harmonic functions are at play as well – it would not make sense to harmonize the second tone in the soprano (*g*) with a chord on the VIth degree.

2. "At *b*, there are parallel 5^{ths}." Self-explanatory.

3. “At *c*, the tendency of the leading tone (*g*) has been ignored. It should go up to A-flat, not down to E flat.” The *g* in question is the previous tone in the lower voice – the last half note of the first measure. Kennan tells us that it is more logical for *g* to resolve into *a* flat. But there is another reason to call the *e* flat in the lower voice problematic. Within tonal context, as Kennan tells us, this would imply harmonization with a 6_4 chord. Such a solution would indeed be in contradiction with some harmonic trends of the 18th century.

Another example of this approach is the exercise of 2:1 (Fux’s second species). Kennan shows us how to derive a 2:1 polyphonic movement derived on a previously constructed 1:1. Here is the example. The *cantus firmus* is in the uppermost staff, 1:1 solution is in the middle, and 2:1, on the bottom. The *c.f.* sounds only with the second or the third staff, not simultaneously (this is not a three-voiced exercise):

The passing tones at points *c*, *d*, and *e* are clear. Kennan explains to us that we can jump on a chord tone at *b*, although it makes a fourth in the vertical (in fact, an augmented fourth) – but warns us that this is to be used in moderation (Kennan 1999: 46). The final octave in the vertical, in the last measure, is approached by a similar motion. On p. 21, subchapter “Independence between the lines”, Kennan states that the unison, fifth and octave are not to be approached in such a way – but makes a special exception when it concerns cadences. Again, this rule is valid in harmony – and in 18th century music in general. In other words, these are “Fuxian” exercises only partially – this teaching technique is used here to teach concepts that are not directly related to the style of the 16th century.

Kennan gives the student the opportunity to learn counterpoint “from scratch,” but without paying much heed to the style, or principles, or rules of 16th century counterpoint. It might look as if he actually begins to teach it not from the beginning, but from the “middle”. He puts particular emphasis on vertical logic as part of 18th century style, thus partially achieving the aim of teaching harmony and counterpoint in a somewhat interactive way – idea which appears to be important to him⁵.

Another study with a heavy emphasis on Fuxian exercises also allows tonalization and “18th- century-zation” of strict style teaching tradition: Luigi Cherubini’s *A Treatise on Counterpoint and Fugue* (Cherubini 1835). His teaching premise is clear: he is presenting the student the postulates (as he sees them) of the strict style, and even presents excerpts from Palestrina’s works, without referencing their names and origin. But his Fuxian exercises are not modal – again, they are tonal, with a key signature. Cherubini is less interested to construct synthesized structures (although Fuxian “species” are basically that) than he is committed to present the “Renaissance” thinking. When delving into the strict style section of his book (not the one discussing fugue), one stumbles to rules that seem quite bold, especially for a teacher who had the reputation of being quite strict and stern: let us look for example at his Rule 10, which is part of second species counterpoint in two parts (or two voices):

“The accented part of the bar should be in concord [i.e., in consonance, S.L.]; although there are cases, where this may allow for variation, – that is to say, by employing a discord [a dissonance] at the accented part of the bar; but this can only be in certain dilemmas, either that the melody shall not be too disjunct, or to avoid other objectionable points (Cherubini 1835:). In demonstration, Cherubini gives us his example – original number 48a:

Ex. 48a

and specially references its measure 10, where he permits a fourth on the downbeat. His concern is to achieve a smoother line, undoubtedly; but this solution can be interpreted also as a peculiar kind of *appoggiatura* (approached from below).

A smoother solution, without any fourths or leaps larger than third is possible – here is my solution:

Another interesting point, cited not by Cherubini, or by Bondari, but by me, is in measure 3 of the original example, where the seventh on the upbeat is not passing. As a principle, Cherubini permits that:

When the second quarter note of the first part of the measure, or even of each part of the measure is dissonant, the ancient contrapuntists occasionally passed to the consonance by a movement of a third, ascending or descending (Cherubini 1835).

This is a historical trend: the rule stated above is derived from it. This rule serves as a basis not only to the famous *cambiata* (costing so much blood and sweat in the classroom), but also to the principal acknowledgment and permission of using auxiliary dissonances, (in a particular meaning of that, look below). In fact, these two different concepts (auxiliary dissonances and *cambiatti*) are somewhat united here into one, over one common divider. While many contrapuntists would ban the use of any auxiliary dissonances as a matter of principle, they are present in the period music. This is quite an original approach. Cherubini gives us the following examples:

Ex. 51

The image shows two systems of musical notation. The first system consists of two staves. The upper staff has a treble clef and contains a sequence of notes: G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7. The lower staff has a bass clef and contains a sequence of notes: C3, D3, E3, F3, G3, A3, B3, C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7. A downward-pointing arrow is positioned above the third measure of the upper staff, pointing to the note G5. Below the notes in both staves are numerical fingerings: 8 7 5 6 6, 3 4 6 5 3, 3 4 3 4 3, 3 2 3 2 3, 3 4 3 4 6 for the first system; and 3 4 3 4 3, 8 7 3 9 5, 8 7 3 4 6, 6 7 3 9 5 for the second system.

In the upper system, the first two examples (on both the upper and lower staves) are *cambiatti* – but beginning from the arrow, placed there by me, begin other examples with leaps from a dissonance in the vertical. The principle is the same somewhat – what is important, it appears, is that once we have leaped on a dissonance, we have to change direction. But the common divider is the place of dissonance in the measure – on which of the four notes. Then concepts of *cambiata*-like structures and auxiliary dissonances begin to intermingle with one another.

This approach has some common ground with Knud Jeppesen's study – devoted solely to the 16th century style (Jeppesen 1939, 1992) , and based on his doctoral dissertation. Jeppesen firmly states that the *cambiata* is first mentioned by Fux (Fux 1725):

So far as I know, the idiom is especially designated as cambiata for the first time in 1725, the year in which the Austrian royal chapelmaster Johann Joseph Fux published his famous textbook on counterpoint, Gradus ad Parnassum.

Moreover, Jeppesen also gives a somewhat ambiguous description of historic interpretation of auxiliary dissonances as given by Bellermann:

The composers of the sixteenth century likewise knew this kind of dissonance but they rarely used it, and then only in notes of shorter value, quarters and eights.

And then Jeppesen writes:

With these remarks Bellermann forbids their use henceforth.

This looks clear enough. But let us take a closer look at the model of Cherubini's example 51, the last note example shown above, and repeated here:

The image shows a single measure of musical notation. The upper staff has a treble clef and contains a sequence of notes: G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7. The lower staff has a bass clef and contains a sequence of notes: C3, D3, E3, F3, G3, A3, B3, C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7. The measure is divided into four quarters. The first quarter contains G4, the second A4, the third B4, and the fourth C5. The notes G4, A4, and B4 are beamed together, and the note C5 is a dissonance.

We are inclined to think that the *cambiata* principle is simply to leap a third down (or up) from a dissonance. In this particular example, one would think that it represents in fact two *cambiatti* – one on the second and one on the fourth quarter. But in Renaissance music we can also see an example like this one:

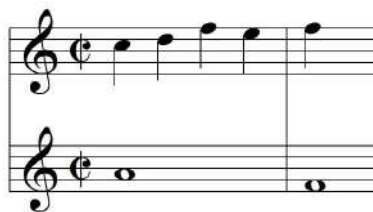
The image shows a single measure of musical notation. The upper staff has a treble clef and contains a sequence of notes: G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7. The lower staff has a bass clef and contains a sequence of notes: C3, D3, E3, F3, G3, A3, B3, C4, D4, E4, F4, G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7. The measure is divided into four quarters. The first quarter contains G4, the second A4, the third B4, and the fourth C5. The notes G4, A4, and B4 are beamed together, and the note C5 is a dissonance.

What is this? *Cambiata* or not? Half a *cambiata*, or maybe one and a half? In Bulgarian textbooks (Manolov, Hristov 1970) this term is postulated differently:

“*The melodic figure of cambiata consists of five [underlined by me. S. L.] tones.*” Moreover, in all examples that follow, the fifth tone makes a consonance with the *cantus firmus*. What about Fux? In p. 65 of the original Latin manuscript, he emphasizes the leap from a dissonance on a third as being a *cambiata*; while he does not state how many notes this figure consists of, both examples given by him have two measures and five notes in the counterpoint, even getting accented octaves (between downbeat of the first and second measure) in the first example:

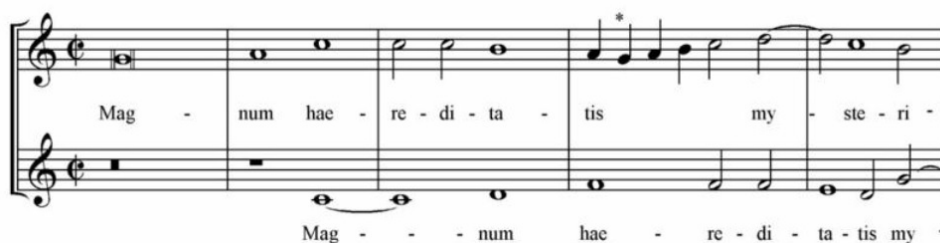


In addition to that, the fourth quarter of every Fuxian *cambiata* is a passing dissonance. Not so in Cherubini! Then who is right? How to teach it? I have personally been taught, that the following example:



is wrong, because its *fifth* tone is not correct; it should have continued in a straight line (in this particular example, down) – and it is called: an *unfinished, incomplete cambiata*. This contradicts Cherubini. Fux remains ambiguous on the subject. Jeppesen is somewhat ambiguous too – on p. 125 of his *Counterpoint* (at the second note example on the lower part of the page) he gives two samples of a *cambiata* – one consists of four tones, the other – of five. Karastoyanov, in his textbook, firmly states it is a five-tone figure, and gives examples where the last three notes are in a straight line (Karastoyanov 2017: 47). And so on.

But the ambiguity does not end here. I mentioned earlier the use of auxiliary dissonances. This is definitely another heffalump (if you have happened to read A. A. Milne’s *Winnie the Pooh*). Is the auxiliary diss. in the example above correct? It appears that such dissonances existed, and were alive and well; Jeppesen gives us a characteristic example from Palestrina:



but explicitly states that it can only be descending *from above*, not the other way around (in m. 4 of the upper staff, the *f* (Jeppesen 1992: 124). Would that be the right way to teach it? Cherubini permits some auxiliaries, so does Fux. But it is also a postulate to train the students to tolerate passing dissonances *only* in the beginning – only later, in three-voiced exercises and the like, they are to be treated more loosely. There is no more point to go into further detail about auxiliaries and *cambiati*; but in fact, passing dissonances are not absolutely clear in some instances as well. What is our didactic approach supposed to be, if a student shows us the following:



Arguments *pro*:

1. Consonance on each downbeat.
2. Contrary motion (no changes in direction).
3. No leaps from- or to- dissonances (stepwise motion).

Arguments *contra*:

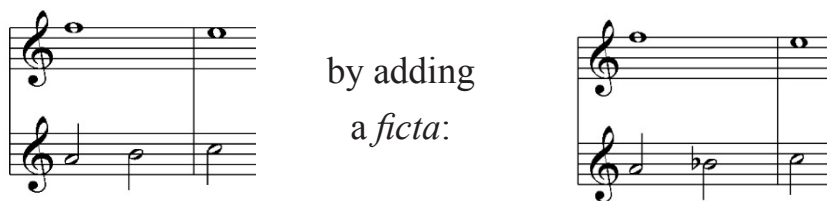
1. Three (!) passing dissonances in a row⁶.

If this still looks a little too extreme, here is a “toned-down” variant:

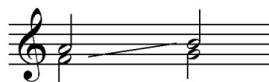


where the arguments *pro* remain the same, but the passing dissonances are now “only” two in a row.

In fact, sometimes there is a way to “annul” even a single passing dissonance:



which reminds me of the question: what accidentals should I allow as a teacher? Being a counterpoint teacher in Bulgaria myself, I was trained by some Bulgarian counterpoint teachers, and I found out that their approaches differ, as well as some of their underlying musical trends – some of them teach as theoreticians, some as practitioners, some try to combine different scientific theories into one⁷. In strict style, some allow *f* sharp and *b* flat occasionally – usually to obey Fux’s rule of having a small third in the vertical at the cadence, or to circumvent tritons – as shown above. Some emulate Palestrina’s practice into “modulating” to a mode different from the initial one. But some do not allow accidentals at all. Some mention the old law of avoiding the “resultant” triton, where these two thirds are considered basically incorrect:

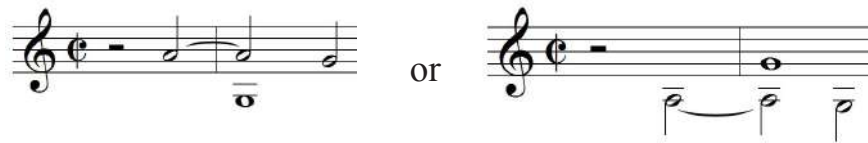


by Karastoyanov (Karastoyanov 2017: 34) because the *f* in the lower voice of the first interval forms a tritone with the *b* in the higher voice in the second. It is cited by Cherubini as well, but I have never seen anybody implement this rule anymore – it appears to be obsolete.

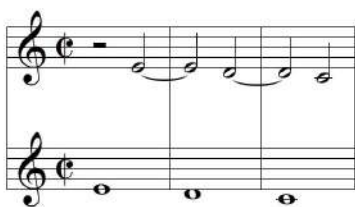
In the fourth, syncopated, species, I also find a concept that is not completely clear. While nearly everybody except Fux agrees that the following is incorrect:



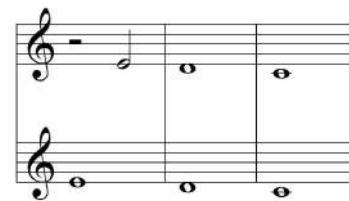
– the so called *false second*; in other sources it is not completely clear which one of the following two examples is wrong, why, and to what extent:



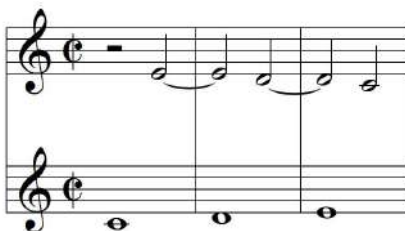
Cherubini cites the *false second* as being wrong, but does not mention the other two variants (Cherubini 1835). Hristov considers the third example given above (the seventh resolving into an octave) as wrong (Manolov, Hristov 1970: 38). Does not mention the first. Jeppesen declares both of them wrong (Jeppesen 1992: 132), explaining that in this species “dissonances may be resolved only to imperfect consonances.” This way, he forbids the use of fifths as well. On the opposite side, Fux tells us that even the false second is permitted in some cases (Fux 1835). For him, it is important from what interval do we proceed into a unison. If we resolve the unison into unison, like this:



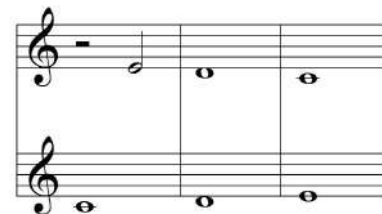
according to him, we are committing an error, because, if we are to remove the ties from the upper voice, and present it “as it originally is” we would get:



or in other words – parallel unisons. But if we resolve into unison from a third, in contrary motion, like this:



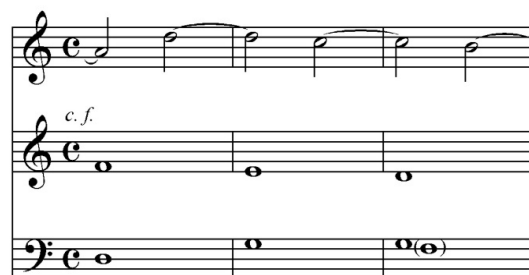
then the resolution would be fine, because of the way the upper voice would look without the ties:



Moreover, Fux forbids the seventh resolving into an octave (as does Hristov), declaring that it was never used by the Renaissance masters; and definitely approves a ninth resolving into an octave.

We could see how different are these scholars – we could see the difference in approaches – and in axiom substantiation.

The last example to display (in this section) is the only example concerning a three-voiced exercise – it concerns the point of view of both teacher and student. In Fux, there is an example of 4th species in three voices – I am showing only a fraction of it:



where the note *f* in parenthesis is mine (as a possible second variant). The note *c* in the uppermost voice, second measure, appears to be incorrect (since it makes a fourth with the bass). Fux addresses that. In fact, he mentions that it would not be a significant problem, because the *g* in the bass repeats itself in the third measure (just to preview – *cantus firmus* cannot have a repeated note, but the counterpoint can – imitating an *orgelpunkt* effect). My point is that if we increase the “magnification” of this example (with *g* in the bass, or with *f* in the bass, going downward, but eventually stopping, repeating itself somewhere), we can get something like this:



where the notes’ duration is reduced. This way, our point of view has changed. It is not important what is in the beginning, or what is in the middle. It is important what is at the end, or *where* is the end – where is the real downbeat and barline. Its location is crucial, this is the real point of the species; the arrow marks the spot where the suspension chain ends – or, at least, where we *hear it* ending. This also is a didactic point that may be overlooked in the classroom⁸.

DISCUSSION

This way it may appear that our “teacher’s quandary” may be twofold. The first kind is about differing viewpoints of similar phenomena; how to interpret, and then teach treatment of non-passing dissonances for example – and how to make teaching axioms out of existing historical examples. The second: how to be aware of the difference between teaching paradigms based on emulating historical models vs. synthetic models. While Fux’s species appear “perfect” for the classroom, we would be tempted for a moment to overlook the fact that they have nothing to do with any species of organum, for example; also, *canti firmi* are often compared to examples of Gregorian chant. This is not even close; while Gregorian *finalis* is logical compared to its beginning, the melody would hover mostly around its recitation tone, there might be many repeated notes, some rhythmic diversity, besides, melodic contour is only secondary to the text. Its melodic formulae are somewhat strict and crystalized⁹.

16th century music with such a delineated and strict rhythm (like Fux’s species) does not exist. While many of the Renaissance multi-voiced polyphonic examples’ rules remain in effect, they are not ultimately sufficient to construct a whole piece. This approach, as solid and academically sound as it is, remains a method of synthetic nature – we are writing music exercises, but they remain only that – exercises. While their effect over our inner musical world is undisputed, these are not really exercises of composition.

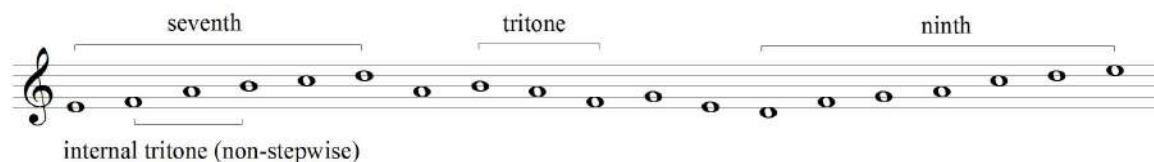
The third aspect is related to the second. While we have a credible teaching system, underwritten in one way or another by Fux, Cherubini, Albrechtberger, Bellermann, etc., its main virtue or vice (depending on the view) is that it is dynamic, changeable, and to a large extent – subjective. As an example, I could site Dimiter Hristov’s approach to teaching strict style¹⁰, which is infused with Ernst Kurth’s melodic philosophy¹¹. For example, here are some of Hristov’s rules about the horizontal (in two voices, they apply mostly to *c.f.* but to a large extent to *c.p.* as well):

1. After two consecutive stepwise moves, a leap in the same direction is not permitted (every interval of a third or more is a leap).
2. No two (or more) leaps in one direction.

3. A leap must be “compensated” by stepwise movement in the opposite direction.

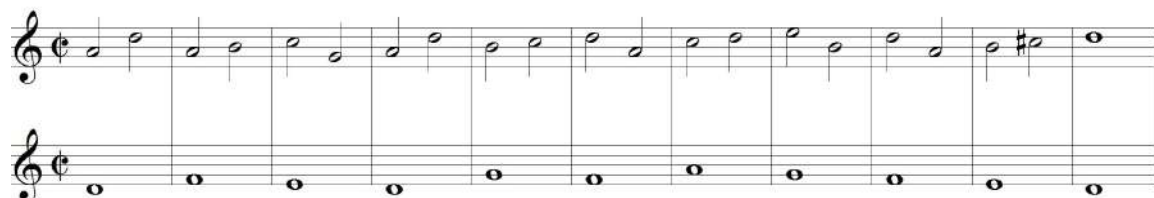
4. There must be only one lowest and highest note; this would lead to *c.f.* having a “fundament”, and an “apex” or “climax”, and thus, to *c.f.* planning and architectonics.

5. No “false sums” are permitted. A false sum is the interval between the lower and higher note of a linear segment. They are: tritone (both an augmented fourth and diminished fifth), a seventh, a ninth; and tritone, seventh and ninth plus octave:

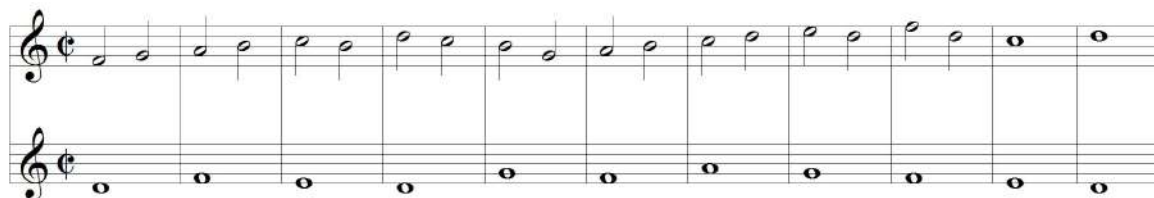


6. No *fictae* are permitted¹².

About the vertical: the two voices cannot leap in one direction simultaneously. In practicing second species, there is a curious feature, striving to maintain stepwise motion in one direction when possible¹³. For example, here is Fux’s solution to his own *c.f.*, taken from p. 59 of *Gradus*, transcribed here in contemporary notation by me (*c.f.* in the lower staff):



In comparison to this jumpy solution, (with some hint of a sequence here and there), I present my own solution to the same *c.f.*, using nearly entirely stepwise motion:



and obeying all of Hristov’s rules. This approach is synthetic – but as a didactic tool it looks perfect – even if it would look a little too demanding for some. It might not necessarily teach historical practice. But it instills logic, economy of means, discipline, it teaches us to be laconic and to achieve the most with the least resource. This is one – alas, just one – of the many aims of polyphony (you may stop applauding now).

CONCLUSION

“To everyone according to his/her needs”. But what are our students’ needs? In our “modern” époque, it might be just as well that we strive to further objectify one already quite empirical science – take Taneev’s mathematical equations, for instance. But there is one more “modern” aspect worth mentioning: software. While it might look weird to some that the world once existed without phone apps, counterpoint teaching software has been with us for some time. Basically, it is in two types: online interactive exercises – for example, in Java script^{14,15} – and downloadables – for example, *Counterpointer*¹⁶.

The last is particularly impressing by being programmable. By that I do not mean command line programmable – I mean that the software lets its user to instruct it what features to label as mistakes^{17,18}.

That brings me to my “conclusive” idea: maybe it is us, the teachers, that have to be “programmable”. Having a flexible teaching approach would be beneficial, although it seems to contradict the very idea of science – the ability to form an immovable principle, even with the risk of us looking intransigent.

At the end of this article I present an example of contrast seven-voiced Fuxian exercise. The *c. f.*, taken from Fux’s *Gradus* is countered by additional six voices, in first, second, third, fourth, and fifth species. I also added one additional fifth species in the seventh voice, to exercise the way two florid melodies interact with each other. While I am trying to be as strict as possible, I find out that I cannot adhere to all Hristov’s rules, also to some others too – and I disobey them occasionally. This brings the impression that moving “from one note/point to the other” in counterpoint has finite mathematical possibilities. This hideously difficult exercise brings out the following technical advice:

1. After placing the *c.f.* in the desired voice, delineate the bass next.
2. After the first species, execute the second – and then the fourth.
3. Proceed to the third, then the fifth.
4. Check thoroughly the interaction between all voices, in all possible combinations.

I would be able to describe better the dichotomy of this subjective science like this: if I was to be asked: what is it that attracts you to polyphony? What is it that should attract others? I would be having a hard time trying to form a cogent answer. Maybe because it is a science that tries to bring order in the musical chaos? Or simply maybe because it is a science about art?

The image displays a musical score for a multi-stemmed instrument, likely a harp, consisting of 12 staves. The notation is organized into two systems of six staves each. The first system uses treble clefs for the first five staves and a double bass clef for the sixth. The second system uses bass clefs for the first five staves and a double bass clef for the sixth. The music features a variety of note values, including quarter, eighth, and sixteenth notes, as well as rests and slurs. A dynamic marking of *mf* (mezzo-forte) is present in the fourth measure of the second system. The score concludes with a final double bar line and repeat dots.

NOTES

¹ Upper staff is on a treble clef, middle – bass clef, lower – also bass clef. It is in G major, but this particular section is in D major (hence the c sharp). My functional analysis is within the context of the temporary key of D major. This is an organ choral prelude – mm. 45–47 of Bach's *An Wasserflüssen Babylon* BWV 653.

² This goes hand in hand with the permission of parallel fifths in the style (and hence, counterpoint) of Hindemith. Changing the rules might be interesting, but is also important for survival, since times and styles are changing too – to allude again to driving, I had to learn such rules that do not necessarily apply either to UK or Europe, but apply to the US – for example, the possibility to turn right on a red signal, treating blinking red signal as a stop sign, etc.

³ To be more exact, they begin with *cantus firmus*. But in Kennan's textbook there is no c.f., he discusses 18th century melody, harmonic functions and platforms related to it, and some rudimental voice leading rules – concerning parallelisms, for example.

⁴ All examples given, that concern strict style, are correct and valid for two-voiced models only. Three-voiced strict counterpoint exercises begin gradually easing the restrictions imposed on two-voiced counterpoint.

⁵ one important example of a treatise that exploits the interaction between harmony and counterpoint is Bulgarian music scientists Assen Karastoyanov's treatise *Polyphonic Harmony*, [Полифонична хармония] (Sofia: Naouka i Izkustvo, 1959), written in Bulgarian. This study was so interesting and influential, that it was translated and published in Russian: (Moscow: Muzyka, 1964). Unfortunately, there does not appear to exist an English translation. Karastoyanov is an important figure in Bulgarian counterpoint studies; his work is cited further in this article.

⁶ But that is not the record. Four passing dissonances:



⁷ There is a somewhat comparative study about certain aspects of Bulgarian counterpoint teaching tradition and approach – a dissertation by Georgy Shamliiev: *Applying J. J. Fux's System From Gradus ad Parnassum to Bulgarian Educational and Scientific Literature* (Шамлиев, 2017).

⁸ The situation would get much more complicated, if we were to discuss two-voiced exercises in triple meter. Differences between polyphonic authorities increase significantly.

⁹ In fact, they are so crystalized, that can be defined and analyzed using computer software. This way, they can be compared to melodic formulae belonging to the Orthodox Christian tradition (for example). One such study is Christian Monody – a *Comparative and Morphological Analysis* [Християнската монодия- сравнителен и морфологичен анализ] – a doctoral dissertation in Bulgarian by Boryana Naydenova (Найденова, 2017).

¹⁰ As cited in the *Polyphony* textbook of him and Zdravko Manolov, mentioned above.

¹¹ Concerning Kurth's study *Grundlagen des Linearen Kontrapunkts einführung in Stil und Technik von Bach's melodischer Polyphonie* (Bern: Akademische Buchhandlung von Max Drechsel, 1917).

¹² These and many other rules are described beginning from p. 17 of his textbook.

¹³ He taught me his entire strict style teaching system on his free time, long after the completion of my student days. I was most touched – and am forever grateful.

¹⁴ For example, <https://tonesavvy.com/music-practice-exercise/241/first-species-counterpoint-game/> last visited 24.4.20. Instruction somewhat follows Kennan's rules.

¹⁵ Another example: <http://openmusictheory.com/firstSpecies.html> last visited 24.4.20. There are many others.

¹⁶ I mean the software, not the piece of hardware that creates loops: <https://www.youtube.com/watch?v=irI23dwQVts> last visited 25.4.20.

¹⁷ <https://www.ars-nova.com/cp/> last visited 25.4.20.

¹⁸ There is also a utility to check music for voice leading and contrapuntal “mistakes” online: <https://artinfuser.com/artinfuser/> (last visited 25.4.20).

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