POINT

AND

LINE

Sean Tartaglia

FIRST PRINCIPLES

What is music?

Music is a collection of sounds that is perceived as, and understood to be, pleasing.

Where the question of what pleasing means is where we approach questions of taste, personally, societally, and culturally, and that cannot be answered so easily.

I like to start with this question each time I begin to write, because before we begin with the practice of anything we must determine, for ourselves, the first principles from which all our truths may be derived.

So in the case of this work, which is on line, the purpose of it, and the composition of it, I think it is best to really come to define the axioms of line, and in order to understand line, we must not being with questions about music, but questions about pure sound and its relationship to our experience of life.

The core quality of music is pitch and rhythm, it is no different than speaking; in fact, there can be no question that the basics of pitch and rhythm come from the voice itself. The first sounds we hear, we make, are intrinsic to us as humans, and the languages that we are exposed to sound pleasing to us. When meaning is ascribed to them, they affect us in ways that are beyond the effect of pure sounds themselves.

Sounds that are pleasing to us are those that make use of the essential properties of a language to accentuate aspects we find appealing about it. Certain words might have been ascribed meaning for their onomatopoeic qualities, or perhaps they somehow express some emotional impact in expression. Languages change with time as people find certain aspects more or less pleasing than others, or perhaps find certain aspects of the structure not as useful for expressing ideas or actions as they might have been in the past.

The qualities inherent to a language become key to its poetics. Rhythm, rate, meter, assonance, alliteration, all of these are aspects of the ways languages sound, implications of the decisions made when the first sounds were made. The distinct quality of poetics is that in different languages different aspects are highlighted, and in some sense the cultural world that springs up is bound to decisions made in what sounds would represent what concepts. Humans identify within themselves that which is most pleasing, and culture forms in a confirmation of it.

The mark of skilled poetics is making use of the multiple facets of a language, to combine all of the most pleasing aspects, to use the sound and meanings of the language to evoke something descriptively,

and to use the rhythmic and metric nature of the language to emphasize both the meaning of the words themselves and the vital essence of the language in recitation.

Music rises from these poetics. The most basic form of human music making is the voice, as the instrument we are born with and learn to use first, and as the instrument that most likely influenced most of instrumental practice and taste. The tastes in music over the ages, as well as across different cultures, must come from some aspect unique to those people, to the way they experience life.

In music, as in poetics, we are driven by the two aspects in composition. There is rhythm and meter: that which moves in a straight line to give a sense of movement and pulse, to evoke action and repose. There is meaning and feeling: that which ebbs up and down, to express joy, sadness, unease, content.

The combination of the two in various ways results in point and line. Point is an accumulation of everything into one space. Line is everything drawn away from, and in relation to, that space. The application of both in accordance to all that is pleasing, results in Melody.

When we look back to language and poetics, a word represents a series of points syllabically. Words are a collection of points, but they are not pure line, but a composite line: they only become one line because we perceive them as one line due to proximity.

A pure line, however, can be found in a syllable that shifts in sound, that drifts. O, is the rudimentary point, it has some glide, but it generally remains in the same position; however, when combined with another vowel, OU, it becomes a point with a slightly linear quality to it in the drift. Add yet another vowel to this point and it becomes a line: OUE is a combination of two distinct syllabic sounds, but when expressed it sounds without break, thus creating a contour that creates a sense of line, an extension of the initial point into a very short linear statement.

Compare with OUkE, where a consonant breaks the vowels up, thus creating two unique points where a line could have appeared. Express it as OUEkEO, and you now have two lines broken by the consonant k; however, when expressed all at once, without much of a pause between the syllables, the two lines slur into one another and sound as if one line, thus forming a composite line from two distinct pure lines. No matter how small, line is distinct from point in terms of space, context, and application, and the distinction of pure line from composite line is one of temporal distance.

This is the root of melodic idea.

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If we look at an adiastemic chant notation, when one identifies where neumatic and melismatic sections occur, contextual reasonings for the choices made in composition appear according to how the words cut up the music into points and lines, but in listening to it we will not always hear points and lines as distinct from one another, but rather as one continuous line with certain phrasal accents.

So the necessary distinction to make concerning line is that something perceived as one sonic event, without break, is the essential line. Where there is a break, a new linear structure may be perceived as distinct from the other, but it also might be comprehended as a continuation of the line. The power of the mind is that it determines self similarity and self dissimilarity, and when perceiving sound we will naturally interpret certain moments in time as being one thing and another being a separate thing.

Even if a melodic line is not broken by a rest, there are sectional distinctions at a basic level because setting music to a text means that certain sounds will inherently compartmentalize the music. It is not simply a decision to use melisma or rests that creates sections of music, but rather the manner in which it is pieced together at the most basic level. The purpose of this text is to give the reader the frame of mind to probe melodic line and understand the various factors that determine the composition of pure line.

There is a key reason why I feel like this method of thinking about and engaging with music is necessary to write. This work is meant to serve as an introduction to, and as a companion to, Fux or Jeppesen, who begin with an expectation of line, but, in not being interested in working with it outside of the cantus firmus, do a disservice to it. It is easy to write studies according to the rules of counterpoint, but that itself does not create a proper line.

My reasoning for this goes back to my studies, where I wondered how I might teach what I learned, and I believed that linear thought was not given as much focus as other forms of musical composition. Counterpoint is a method for writing music. In the monophonic tradition there are also methods for writing music. These are intertwined, rivers that flow from the same fount, yet they are not treated as if they were. The composers of the polyphonic tradition knew well the music of the church, and their melodic writing is, without doubt, informed by modal practice.

I must acknowledge my forebear in this context. To his credit, Jeppesen begins with some techniques for writing line, but it is only really fourteen pages, when melodic line is rather a much more complex idea. His section on melody is excellent, but I also noticed that there is some bias against the conception of line in chant which I

believe is unfair. Certain patterns are singled out as stiff because they are not apparent within Palestrina's style, which, as the main focus, is the driving standard of quality. There are some caveats, of course. This is useful for studying counterpoint according to this cool, flowing style, and it should be noted that Jeppesen is working with many more tools, inherent rhythmic qualities, and divisions of the whole note down to the eight. We are working with line at its most basic level, as a contour or shape. These ideas feed into any other study, and I do not think anyone who works through this text should have any issues adjusting to these requirements, as they should have the ability to understand the reasoning behind the distinctions, because of course Palestrina's ideas about line must come from something.

So, I hope that my thoughts on this matter are rather clear: to begin with counterpoint, without understanding monophony, and to study those with experiences and knowledge oneself might never have, seems ineffectual. Just as point must occur before line, so too must line appear first, then one may begin to add layers to it. Music was probably not inherently monophonic in the beginning–I do not necessarily have proof of such a statement and should not make it–yet, the most basic method for making music is the voice, and the monophonic is as essential to the human experience as the polyphonic is.

In a tradition as robust and rich as this, one that is often ignored or overshadowed by the instrumental music that flowered from its branches, there is no reason to shun the beauty and perfection of what seems so limited in scope, but bears greater fruit than we often give it credit for.

Thus, we come to my truth: the intonation of Credo I; the Ur text from which my beliefs are drafted, a composition that has been assumed to be one of the oldest of the Gregorian tradition. Within the seven notes of the credo and within the patterns of the psalm tones, we can begin to develop an understanding of line.

Comprehension of line in its most essential form–a composite of patterns experienced in life, formed into a meaningful way–is intrinsic to the study of music, because music is an accumulation of method, of things that form a composite from distinct, unique, patterns and parts. The skill of the composers and performers is in spinning a succession of parts into something that is perceived and understood as coherent. Line is not complex, rather it is apparent everywhere. Even the youngest of children can spin a line given enough patterns to work with. The only thing that distinguishes a genius from the rest is the ability to identify patterns faster, more often, more consistently,

and then apply those to their knowledge of the methodology of composition. Because it is being able to identify the distinctions in a piece of music where certain patterns and tropes occur, and being able to identify the distinctions between point and line, that allows one to have a strong understanding of line.

It takes no skill or inspiration to write a line, it only requires the ability to identify and understand patterns that are pleasing. The music does not have to be good, it could merely be competent; however, the ability to understand a line, its qualities and its implications, when and where it could be point instead, why lines and points are used in the way they are, is important for having a strong grasp of writing meaningful melody.

This is what I call "linear hermeneutics," the perception of, and interpretation of, line in many contexts, and the understanding of why it is used in certain situations, what the effects of it might be, how the use of different patterns or tones might change our experience of it, and so on. As if reading a text, we always must come in with some sort of interest in identifying why, and for what purpose, the author chooses to make use of literary methods and forms, and then come to an understanding of how to interpret all of these decisions first made. Rarely is a piece of music haphazardly put together, and even in situations of chance or serialization, some compositional intent is apparent in the handling of the material in the first place. When we draft, we begin with a set of tools, and the tools that we choose to include in the initial preparation are as important as the final decisions we make in the end. Part of this "linear hermeneutics" is attempting to come to understand the decisions that happen before the first note is written just as much as coming to understand how the composer might work with the same material later in the piece. Often in analysis we tend to overlook this aspect because the only consequence of a piece of music is what happens after the initial idea, but sometimes what is happening immediately is often of greater interest, not only because it might determine the rest of the music, but because it reveals what the composer in interested in expressing immediately, because the beginning of a piece is what determines the remaining material, and the expectations for the rest of the piece.

Marenzio wrote this set of lines to begin *Solo e pensoso*
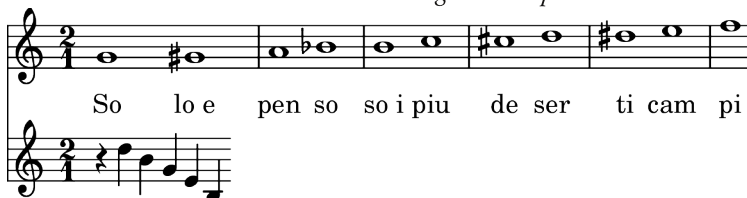
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And these first two voices in the beginning set out two ideas in two melodic lines. What we hear in the forefront is this despondent series of descending thirds, singing out alone, but it is really what is in the background that is of greater interest. Marenzio lays out behind it this dramatic, rising chromatism, which is the landscape within which the voices lament.

It is powerful melodically, harmonically, and emotionally, but it also an incredibly intelligent way to express the text before it even occurs

Solo e pensoso i piú deserti campi
vo mesurando a passi tardi et lenti...

Alone and thoughtful, the emptiest fields
I'm measuring with my slow, tardy steps...

The initial line is this desert, this void that the voice cries out in, but it also crawls in a slow, slight ascent, most likely representing these steps, the voices measured against them to form wildly chromatic harmonies as the tension builds. It is all wonderful word painting on the surface, but what lies behind this as a surface level trait is that Marenzio has to make a decision as to how to set the text before he wrote the music: he had to decide what forms and methods available to him would properly work with the musical statement.

Both Lassus and de Wert set this text, and both are exceptional composers, but in setting the text they treated every voice with imitation of one line, the "solo e pensoso" was to be five voices singing the same line separately. For most polyphonic composers, this use of imitation is an essential tool on text setting, a majority of madrigals use imitation at the beginning of a work because it is effective in providing the first principles of the piece.
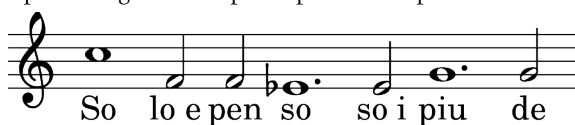
Ex. 1 Opening motif of Lassus' setting

Ex. 2 Opening motif of de Wert's setting

The distinction in how Marenzio approaches setting the text happens before the music is written. Imitative music is, at some basic level, determined after the music is written, because the total line changes as other voices enter; however, Marenzio juxtaposes the lines that begin with imitation with a chromatic fabric that essentially takes the role of a tenor, except it is passed on to the highest voice to provide the harmonic ground instead. This line must be determined ahead of time, because all the imitative and more florid music of the other voices must be balanced around it, and the ways in which Marenzio must handle consonance, dissonance, voice leading, etc. are all challenged when placed against a highly chromatic line.

This basic introduction to these ideas is key to the first steps in analyzing music as a series of decisions within a system, not as a systematic framework that determines the decisions. We will be working with music within systems, that have specific methods of composition, but we will not be doing so to prove that this music is paint by number, but rather that it is composed by people according to rules that they themselves determine beforehand.

What I am not trying to say is that Marenzio is a greater composer than Lassus due to the setting of a line, what I am trying to say instead is that each composer, when faced with the problem of composition, the dread of the blank page, formulates methods and means as to tackle the problem that lies before them. The question is not whether or not one composer succeeds over another, but rather that each composer intrinsically draws out something different ex nihilo. Understanding the reasons for which, the means by which, and the aesthetic positions from which composers choose to compose something as unassuming as a melodic line allows for us to better understand and enjoy all forms of music, and that in turn allows for us to better approach the task of composition on our own terms, not because we possess knowledge, tools, and examples, but because we understand better how to express ourselves from our own reasons, means, and aesthetic positions.

In this work I will make an attempt to explain the essential power of line in the context of Credo I, the Ordinary tones, and the Psalm tones, the most basic, yet most well written, musical formulae, and then expand the scope to other chants and experiences of musical line. My interest is not pedantic, and perhaps some of the text might not be as rigorous as a textbook, though I find it more rewarding to discuss music not as clinically. If that was all anyone desired, there are plenty of texts to read. In this I will maintain, even double down on my aesthetic beliefs, and it should already be obvious after some of the examples provided already: music is neither a precise science, nor

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a concrete art; music, as it is, is firmly rooted in the realm of possibility, not probability.

CONTENTS

"CREDO"

So then, with some basic understanding of my point, we should come to the implications of it, the "Credo," my core beliefs framed in one short musical example. The Credo I combines many key aspects of musical conception into one melodic line: the phonetic point, the line as a series of points, and the line as a composite of patterns.

PHONETIC POINT

The Credo is neumatic–syllabic. There are no melismatic–extended melodic figurations on a single syllable–moments in the composition, but rather one pitch to each syllable. This makes it an excellent line to view because all of the parts of the line are core pitches, whereas in melisma the music ends up being closer to instrumental music, which is beyond the scope of the initial study of line, because one cannot properly extend lines without understanding what makes a line built of only core notes effective in the first place.

As discussed before, the sound of words phonetically is an essential root to melodic design. Words can form pleasing patterns, and some languages are often very songlike in recitation.

Phonetics can also inform the music less literally. The first four tones of the Credo follow the same pattern that the raw sounds the words take:

Re - Do - In - Un
down—up—down

The distinction is not literal, if so then it would be a tone higher than that of Re; rather, the distinction is one of relative contour. We understand each of these pitches to be higher than Do, so as these two syllables bookend Do, the line simply needs to make these pitches higher in relationship to that syllable, as the relationship between the exterior syllables is of lesser importance since they are not juxtaposed against one another.

Phonetic tonal height is not determined by the total line, because we are not identifying the beginning and end syllable in relationship to one another; instead, the line is experienced as it is occurring, so we only identify distinctions of height when we compare phonetic sounds placed together.

Of course, a wonderful touch in the composition of the line is that Do and Un are identified as being of different tonal heights. In pure solfege Ut and Do are often conflated, when in reality they express different sounds. Placing Ut a tone below Do and highlights

the differences between the vowels.

So there are a few relative and literal distinctions of height in the line that reflect the phonetic qualities of the words. Though these patterns are simple, they are effective because they align with how a language sounds when spoken, which can be just as melodious as a sung line.

A LINE OF POINTS

When we view the phonetic, neumatic points here, we do not really see these as one thing, but rather pointillistic patches of sounds juxtaposed with one another

All of line is not this idea of legato tones–those that slur into one another, which creates the assumption of a single tones sliding about–as this would disqualify non-sustaining instruments from having any true linearity to them. A guitar can only slur so many notes before the performer has to pluck a string, thus theoretically breaking the line, whereas a keyboard offers the ability to slur notes across multiple octaves, especially with synthesizers that can sustain indefinitely.

So we need to understand line differently: line is the result of perceiving certain sets of tones as being within a single instance together, that they are to be understood as intrinsically linked to one another.

So when we view the vocal aspect, a line is made up of points, phonetic material, that we identify as existing within the same space of time, i.e. a word is made up of points, syllables, that are perceived and understood as being part of a singular moment.

The very beginning creates a line from a set of points: Cre-do. It is very basic, but it forms a basic linear movement from one point to another, forming a line. Now, expand the scope out and one notices that phrases are made up of points, words, that are perceived and understood as being part of a singular moment.

The beginning, again, creates a line from a set of points: *Credo-in-unum-Deum*. Though these are separate words that are not intrinsically linked to one another as their component syllables are, because language causes us to identify distinct units being connected to one another through context, meaning, and grammatical interrelationships, we perceive these points to exist as a composite entity, despite being formed of many distinct parts.

We identify all of these words as discrete points in themselves, but when placed within this configuration, we understand them to form a

singular body through the reliance on each unit to provide the necessary component parts to parse the meaning of the statement. With one part of it missing, the statement is left incomplete in such a way that it cannot really be properly read without having to fill in the gaps.

Cre—in—unum—deum

So line is not simply a consequence, a happenstance of composition, but is rather an essential formal unit. When we break the line, as done above, the essential logic of the line is lost because a line is understood according to three things occuring all at once: the tone that is occuring, the tone that it came after, and the totality of the tones that have occurred and might occur.

Because a line is not only understood as being unraveled, but rather it exists all at once as a series of patterns that form a composite. So a line is both occurring as we express it, but also already exists because the configurations that causes the line to occur are predetermined, patterns that are understood as structurally and systematically significant. Everything we engage with in a line is not new, we are not stumbling upon it, it is explicitly understood as already existing within the formal structure, just having not been fully realized. Line is like the idea that nothing cannot exist because the notion of nothing implies that it cannot even be comprehended; therefore, everything that can be understood is understood to exist, to be.

It is no different than in a language. When you write a phrase,

Credo in unum Deum

You have certain implications in each word. Credo as the subject action, i believe, in as the direction the action is acting on, Deum as the object being acted upon, and unum as a modification to the object.

All of these things, despite the order in which they occur, are reliant on the existence of the other parts to form a composite statement, in not simply meaning but in their grammatical forms, so they are always there even if they are not apparent. We must remember that it not simply that statements have grammatical logic, but there is also intention in the way we choose to compile statements.

If broken up, you find yourself losing the full meaning of the

phrase:

> *Credo in unum* – one what? No object.
> *In unum Deum* – what is the subject?

Or even altering the meaning of the phrase:

> *Credo unum Deum* – as in believing in the sense
> of "believing the god." The distinction of it as an
> expression of faith is muddled.
> *Credo in Deum* – believes in a god, but the
> distinction of God being one that is important to
> the Nicene Creed later is lost.

All of these important structural and contextual cues found in grammatical syntax are also apparent in music. When you write a phrase,
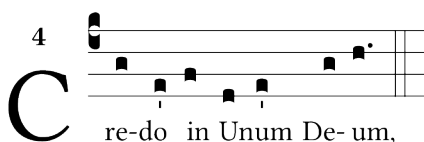
Ex. 3 Credo I intonation, pg. 64

You have certain implications in each tone. There is a final tone and a recitation tone, there are mediant relationships among them, there is a certain polarity around the reciting tone, and there are certain recitation and cadential formulae that are used in various, sometimes extra musical circumstances.

The relationship between a tonic and dominant in musical structures familiar to us in tonality represents this: certain melodic patterns are dependent on a relationship between two tones being approached from certain directions by differing degrees. Harmonic progressions in tonal music make use of patterns that are informed by the tensions created within harmonic structure.

Music is, like language, a highly complex series of interactions between points that create line, meaning, when they are juxtaposed and parsed.

LINES AS COMPOSITES OF PATTERNS

With these we approach the final aspect of the credo, that which is of greatest importance in the assimilation of these previous ideas into a musical system. The two previous facets of music are asystematic, they are things that occur naturally because we perceive them in the natural word. The tones and rhythms of the voice naturally create distinctions of height over time, which are interpreted as a linear structure according to juxtaposition of sounds and trends that we identify in language that allow us to parse phrasal and sentence structure.

However, musical ideas are an extension of these things we perceive, which are organized structurally to create systematic methods for composing and performing music according to the tastes we develop in our perceptual experience. All of music finds itself determined and regulated by methodology that, in turn, develops certain phrases and patterns that we combine to create melody. Music is the refinement of linear ideas into an artform. When we look at Credo I, we must recognize that is in mode 4, with a final of E and a reciting tone of A.

Musical patterns can be understood as reflecting the relationships between certain structural tones, and in the modal system the final and the reciting tone are essential to various musical patterns and formulas that determine the musical content based on various parameters.

These patterns are possibly also written with the content and sound of the word in mind, so when you see the linear approach to setting the credo there are parallels between the relationships of phonetic material with the actual melodic composition.

Because the Credo is a long text, the musical patterns used reflect it as a recitation formula like a psalm tone as opposed to a composed to. The intonation needs to reach the reciting tone, as the intonation always sets it up so that the next section of the text begins at the point. The Church modes always desire to reach the reciting tone as soon as possible in the beginning of a piece of music, not simply because it is a point of structural significance[1], but because it is the point of greatest tension within that structure itself.

The line also reflects a more meaningful expression of the text, as the descending line that is phonetically fitting is followed by something perhaps symbolic. Upon reaching unum deum, the line shifts upwards, as if motioning towards heaven, ending on the reciting

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[1] The tuning of the system itself being built around stacking perfect fifths.

tone in the process. We know the reciting tone has not yet occurred in the line, and it, as the central tone of the melodic formula, as well as the highest tone of the line, certainly has some symbolic weight to the expression of the text in the process.

It is often ignored or not often discussed that word painting is found in the chant tradition, as seen in other melodies like In Paradisum.
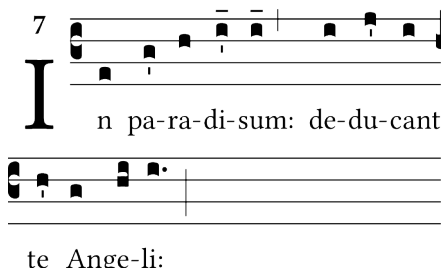
Ex. 4 Opening section of In paradisum, pg. 1768

It is perhaps because the word painting of the renaissance is, by nature of the harmonic qualities, often overshadows it by virtue of more obvious or extreme examples. Yet, no matter the system or means that determine a melodic line, the point of line set to text is to express the text, and word painting is simply another tool that can come in handy in illustrating the line and allowing the music to better serve the purposes of the text.

METHODOLOGY

General musical study begins with the expectation of knowledge of standard notation on a five line staff. Yet, all forms of music that possess diatonic functions, that is, moving stepwise, have been written in a variety of notational ciphers.

 The most basic of these is a notation that does not inform pitch, but rather patterns and contour that musicians infer the resultant tones from based upon prior knowledge.

 With this in mind, I have chosen three forms of linear motion because they are predominant in both the Credo and the Psalm tones, which represent the core essence of linear writing: static linear, stepwise, thirds, and fifths[2].
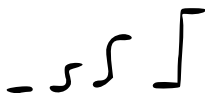
Fig. 1 The ciphers for linear, stepwise, third, and fifth movement

I will write all the examples according to their "original"[3] notation and in the adiastemic one I have devised. For example, the intonation of Credo I.
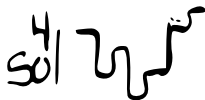
Ex. 5 Credo I intonation according to the ciphers

The reason I use this sort of cipher for the chant examples is twofold. First, I do not expect a strong understanding of the intricaies of solesmes notation, so it provides a general understanding of the line itself; however, the more important is the second, which is that it illustrates how the line interacts with the tonic and dominant functions of musical structure. In each situations where I provide a linear contour, one can see where, and to what extent, the total line is being pulled by either position. This is a intrinsic aspect of western music, from the modal to the tonic, and it is useful to understand it purely beyond theory and construction.

 In each section, after analyzing and having a decent grasp of the

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2 In the Credo I there is only one instance of a fifth at the end of the chant.
3 "Original" is an impossible topic. Notation, especially of the material we are working with, is always transcription. In most of the music we are to look at, the notation we are familiar with is a compromise made in order to read it with some degree of ease. I am of the persuasion that the notation a music is initially written in should be the manner in which it is read, because the performance practice is tied to the decisions made in the initial transcription; however, as that position is incompatible with modern performance practice we tend to have to transcribe for use, even though that means we lose something in translation.

examples, the reader is encouraged to write out their own exercises according to these guidelines:

> 1) All the lines are to be written according to the adiastemic notation
>
> 2) To the left of the line write the number of the mode

Ex. 6 The Church modes

> 3) Next to the starting tone write the solfege of the tone the line begins on

Do Re Mi Fa Sol La Ti
C D E F G A B

Fig. 2 tones

As this is not really a workbook per se, but more a collection of materials analyzed to facilitate teaching, the extent to which exercises are done is up to the student. Remember that the point of this text is

a foundational tool for beginning counterpoint, so interest should lie in having a strong command of linear thought in that the music is easy to sing, varied in terms of contour, interesting in the approach to material, and pleasing to the ear. The rules and weights of musical structure are not yet expected to be understood overtly by the student, but at the same time they are certainly implied by a well written line.

I have my reasons for choosing to shift away from standard notation to work with this material. It is easier to work with line as a linear concept when abstracted away from standard notation, because music is at the core, vocal; it is meant to be totally understood when sung, not by just what is written down. So by working with the basics of linear composition we are also engaging with the basics of solfege, especially for those who find themselves lacking in this department. Sometimes it might be easier to get the feel for singing a piece of music by breaking down its surface complexity on the page through drawing out its contour. One can get accustomed to the rhythms and pacing much easier if they have an idea of how the musical line flows, because they can begin to start seeing where points of stress should be based on the melodic contour.

We will be working with the modal system of the Catholic church, because this system is A) used in counterpoint studies, B) historically and structurally significant to the development of western music, C) made use consistently in a large body of work going back more than 1600 years, and D) incredibly easy to learn how to sing.

But there is also another reason: this system of music is not inherently bound to modern standard notation, therefore there is no reason to not abstract the notational form to highlight how patterns and contours appear within the melodic ideas. Modal music is always that of patterns. Certain configurations are implied based upon the genre the music is being determined for, the current mode, the current tone within the mode, the current distance from the reciting and the final tones, the current distance from the mediant, the type of interval and the size of the leap, the current part of the text, whether or not a flex or a full cadential formula should be used, etc.

Say, if a piece is understood to be in the first tone, Dorian, we know these things are true:

1) Our core set of pitches is D E F G A B C

2) The final tone, where the line will end, is D

3) The reciting tone, where the melodic line will hover, is A

These are the only "rules" essential to composition according to a method: the total structural form itself, and the points of tension. Outside of these two factors, any further rules are useless. Rules are aesthetic codifications of things that occur in a piece of music that is properly composed according to its own axioms. You do not create rules from nothing, and you cannot compose according to rules, rather rules exist in order to make sense of what has already been composed according to a practice that is inherent to the methodology of your musical system.

Thus, when one performs according to a certain musical practice, there are manners and methods by which one interprets notational ciphers, often sometimes regionally or culturally informed; for example, in baroque performance practice, there were not only differences in the meaning of ornaments across time, but also regionally, where in Italy and France taste would inform how best to interpret a score.

So several practices can develop from one source, and in the process develop distinct methodologies for the performance of notation that are not determined by notation, but rather are taught to performers while they are learning music. Certain affectations like vibrato are always implied in performance according to some schools of thought, whereas others might find it distasteful.

Knowledge and understanding of historic practice reveals to us how the score itself is not the true essence of the music, but rather a means of conveying it as to put it into being. Notation is simply a cipher, it is an invitation for practice to interpret the work; not improvise or reconfigure, but, through knowledge and creativity, bring it out.

When one knows the essential purpose of every pattern, then one is atomizing musical literacy not to a state of reading music as a continual unraveling of new material to be learned, but rather as a series of distinct and distinguishable tropes and patterns that are combined to create a piece of music, not unlike how when one learns their arpeggios that they begin to notice how they appear in pieces written idiomatically for their instrument.

If we were to view a piece of music written specifically for a certain instrument, say Beethoven's mandolin sonatina in C major, we might find that what is the easiest to write is often that which is highly idiomatic, and those attributes of an instrument, in relationship to the greater musical system, will lead to very obvious, and highly playable, melodic patterns.
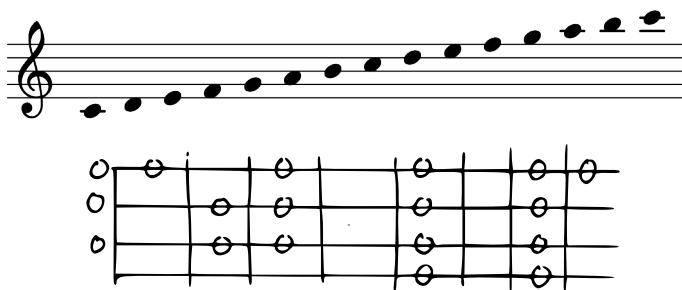
Ex. 7 C major scale on mandolin
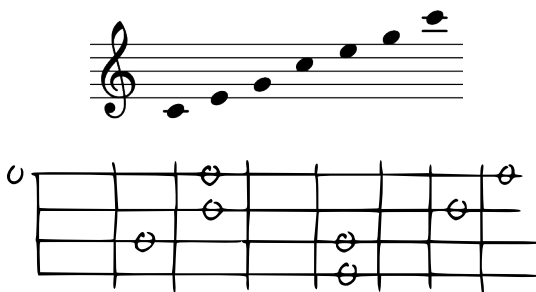
Ex. 8 C major arpeggio on mandolin

Ex. 9 Beethoven's Mandolin Sonatina in C WoO 44a

The distinction is then placed on how we perceive these units as unique instances, rather than as one unending series of experiences. The juxtaposition of experiences creates a sense of similarity or differentiation, and that, as we expand the scope, facilitates the notion of form.

In Jeppesen's discussion of melody, he makes notes about certain modes having melodic patterns unique to them. I generally acknowledge this as accurate, but unfortunately, the scope of this text cannot be all encompassing, so I am not really going to be viewing the music in the light of their modal patterns, as to prepare, analyze, and then explain these for each mode would be more than one lifetime of work. This is not a thorough study of modal patterns in Gregorian chant, but rather an examination, and celebration, of the rich melodic heritage of the western tradition, looking at how this

music might have been composed from the position that every melodic structure implies a certain decision being made at a fundamental level. Patterns are bound to appear, but identifying them is not as important in the context of this work. While patterns are placed within a line according to various rules of modality, as far as I am concerned, what is of value in the melodic aspect of chant is not that aspect of them, for the whole of a work is not simply a composite of patterns patched together without any reason or forethought. Beethoven–and Baroque composers before him–wrote that very obvious arpeggio, but the whole of the work is not the pattern, but more what can be built from it. Patterns are more like a skeleton or scaffolding for a larger work, and in the end they are usually woven into the fabric of the work itself instead of being laid bare. What makes a genuinely good composed piece of music is how patterns and tools can be used for ends greater in substance than what they appear to be in isolation. It should be understood that I am curating pieces that I think are interesting compositionally, that have certain melodic traits and structures that I think are useful food for thought, that might inspire you to think critically and creatively about the decisions you make when you look to set music.

It is key to reiterate that the composition of melody itself is not necessarily genius. It is always knowledge, methods, and tools that lead to the ability to spin excellent lines, and the mark of genius is simply being able to work with the tools one has well enough to an extent that others can only be baffled by one's ingenuity.

REPERCUSSIVE & STEPWISE

The two most basic motions that create line are the stepwise movement, shifting a tone, and repercussive pitches, repeating a tone. These are the most essential because they naturally reflect those shifts in vowel sound that we hear within our own voices when we speak. When we speak a single word with multiple vowels, we will tend to perceive it as a single unit composed of multiple sounds, and those sounds in juxtaposition create a sense of linear movement. So if you say the word "okay," it is built up by these two unique sounds: O-kAy.

The two sounds are distinct in pitch, thus creating the pure stepwise motion. In music, as in speech, it is rather self evident: the tone moves up or down by one, a major—or minor in the case of E-F and B-C—second interval in our musical system.

The repercussive has two uses: the first is the break up the line at a tone for the sake of delineating two linear ideas, often in association with a new syllable; the second is a melismatic effect where, in a single breath, the same tone is repercussed, but the line is not broken by it because there is the effect of a slur, as if a legato on the same pitch. Both occur with a word like "solo," sO lO and sO-lO are different in the affectation placed upon the repercussed tone.

This occurs because there is really a slight microtonal shift to the pitch—try it, you will hear it as if it is sliding up to your pitch—so it represents a sound that, being outside the scope of an equal tempered tuning, is fundamentally equivalent: D is still essentially D because there is no distinction, despite the minute difference in tone.

Both of these types of movements appear most frequently in common tones and psalm tones, which are, due to the the texts and their roles within liturgy, are composed to have simple melodic contours. The repercussive allows for declamation and recitation, and stepwise serves not merely to break a certain monotony inherent to a composition on a single note, but also serves as mediant and cadential points within a composition.
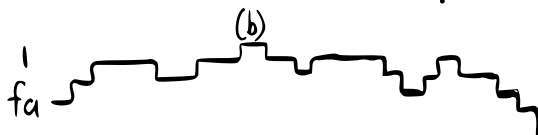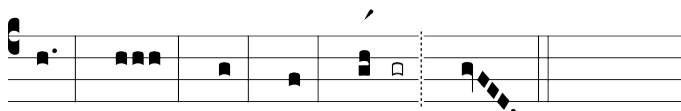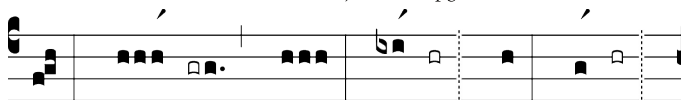

Ex. 10 Solemn Tone, pg. 100
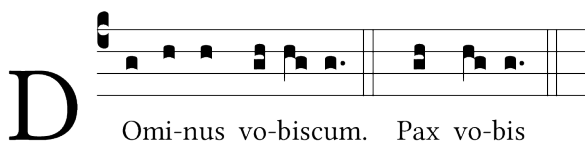
D E- us in adju-tor-i- um me- um intende.
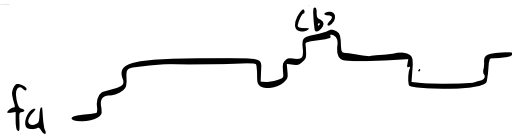
Ex. 11 Deus in adjutorium, pg. 112

Ex. 12 Psalm tone, first tone, first termination, pg. 113

When one works with very simple motions like these, what is important is not writing highly florid, ornamented lines, but rather artfully distributing the intervals where a change in tone creates the greatest impact. The skill of music is less about the qualities of the notes themselves and more about where and when they occur in relationship to other notes.

Repercussive tones either exist at a state of rest or exist in a state of tension, depending on the position within the musical structure. So, say the first mode, D is the resting tone so the repercussion of it does not really create any tension, however when traveling away from D, the repercussion of a tone like the reciting tone, A, will generate tension the longer it holds the line. Releasing that tension with a new note creates a miniature wave. If we glance at the ordinary and psalm tones brought up earlier, it is as if the wave slowly picks up, then it crests when the tone changes, and finally there will be a cadential figure following it, drawing it back to the final, resting tone.

Though these forms of movement seem innocuous, these simple lines are the backbone of all melodic thought, and understanding

how tension occurs within musical systems is key to elegant, flowing lines that are effortlessly singable.

Even in the tonal world, the rules of tension and gravity toward a root tone still apply. Look at Monteverdi's wonderful use of alternating stepwise and repercussive tones in Zefirno torna

Ex. 13 Zefirno torna..., "note temprando amor"

Each time a line leaps back up to a point of tension, it is naturally being pulled back to the tonic point of rest, and the use of alternation between stepwise and repercussive motion gives each step extra stress, highlighting the scalar tension and release as the line descends the G major scale to rest on a unison G.

When looking at more florid examples, some of the most wonderful melodies in the Gregorian tradition are built around stepwise patterns within the space of a third, the reciting tones for the plagal tones. These include the ancient tones and the lectionary tones, which are perhaps much older than most of the other chants.

And perhaps what makes stepwise, and especially florid stepwise patterns like the alleluia tones, so appealing is that they are incredibly easy to sing, they always feel quite natural.

It is important to note that in situations where a section is made up of stepwise intervals in one direction, the extent to which it travels is rarely more than a fourth. If a stepwise motion moves the distance of a fifth in total, it is generally written in one direction countered at some point by the opposite direction. If one wishes to travel great

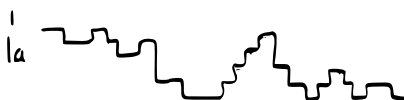**D**E Lamenta- ti- one   Je- remi- ae Prophe-

tae.   HETH
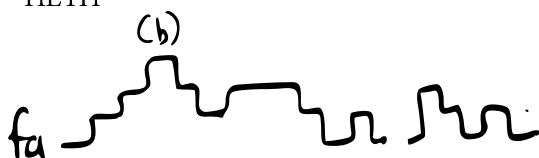
Ex. 14 Lamentations, pg. 692

Al- le-   lu- ia.-

Ex. 15 Alleluia, Common of Holy Popes, pg. 1122[5]

ad-ju-va me, Do-mi-ne   De-   us me-

us.

Ex. 16 In saluarti tuo anima mea..., adjuva me, domine, pg. 1070

distances, then a leap of a larger interval will generally be mixed in with the stepwise, as seen in the previous alleluia.

This should generally be understood as part of the polarity of the final and reciting tones. Motions tend to fluctuate between the two structural poles and create these ebbing contours because this is key to tension in the modal system. That is not to say that it is forbidden or impossible–there are exceptions in everything–those rare situations where a stepwise ascent or descent extends to an interval of a fifth exist because it is an intonation being pulled to the reciting tone or a cadence landing on the final.
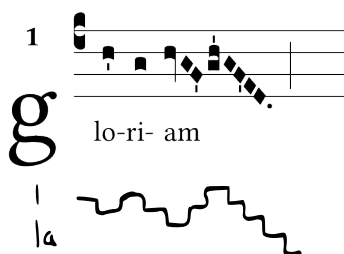
Ex. 17 Exsultet orbis gaudiis..., gloriam, pg. 1116

An incredibly rare stepwise motion is that of the sixth, which occurs in the alleluia responsorial on the Feast of St. Bartholomew:
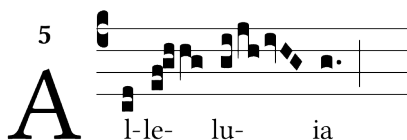

Ex. 18 Alleluia, pg.1613

There are a few other appearances of this type of line, though they seem to be confined to highly melismatic chants, often unique to feasts.

Of course, the use of stepwise motions is merely scratching at the surface of what is possible. To only use these tools would be to limit the potential possible within musical expression. When mixed with leaps of a third, a whole new world of contours and melodic possibilities become possible.

A small prefatory note before we turn to the use of third and seconds in combination: thirds alone are rare for a reason in the source material. Highlighting Marenzio's "solo e pensoso" earlier is of interest here because he essentially breaks a classic rule of melodic writing that, at least since Fux, has been associated with Palestrina[4]: every leap greater than a second is countered with a stepwise movement that fills in the space created. Though it should be noted that this is not a trait that exists in Palestrina alone, it is a key aspect of the Gregorian tradition, which for Palestrina was no doubt key to his melodic intuition.

Naturally, there are always exceptions. Note here in this section of Beatus vir qui timet Domininum that the leaps of a third occur consecutively, and even then these leaps are not filled in until the end of the line.
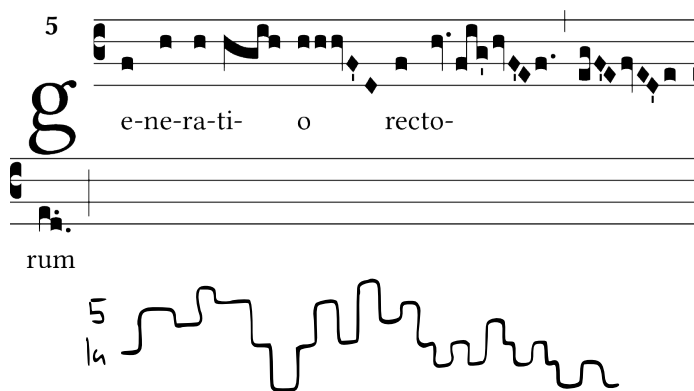

Ex. 19 Beatus vir qui timet Dominum, generatio rectorum, pg. 1137

The reason for the use of thirds as movement, without filling in the gap, lies in changes of structure altering melodic conception. The use of a leap of a third in modality implies the role of the mediant tone as something that exists within the points of polarity of the final and reciting tones. In the example above, the consecutive leaps are just that: the succession of tones is F-A-C, final-mediant-reciting. There is some sort of structural purpose for the rising of three thirds, but the rare, if never, occurrence of the descending of three thirds. Where they occur there may be a repercussed tone that descends a third, splitting the descent into two parts.

4 This is, of course, just a question of Fux highlighting this in Palestrina's practice. It is just as common in composers of the late medieval and early renaissance, but by the time Fux was writing many of these works were not commonly available due to being confined in manuscript sources instead of being circulated via printing press.
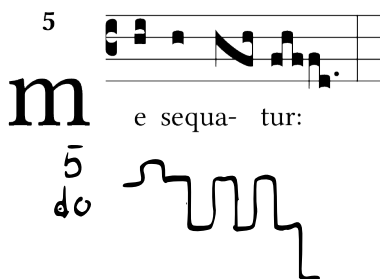
Ex. 20 Qui mihi ministrat..., me sequatur, pg. 1141

In a majority of situations where a descending third occurs, the gap is always filled out in some manner. For me this is less a question of "good practice," and more a question of structural polarity; i.e. the filling of the gap has to do less with the fact that the gap exists, and rather that any movement away from a pole will be answered with dragging it back to that point to resolve tension.
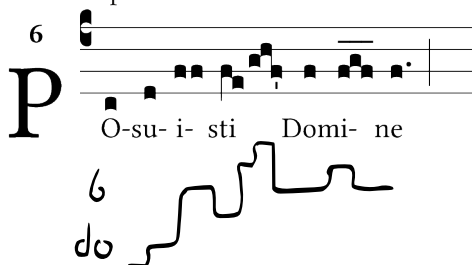
Ex. 21 Posuisti domine, pg. 1135

So, for any leap there will be a reaction to it in some way. In the third psalm tone, a leap of a third follows a stepwise motion in the intonation. This is later filled out in the mediant.
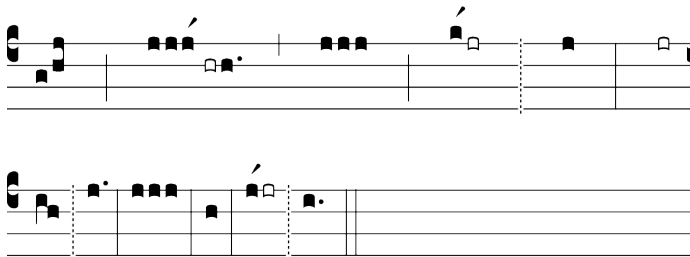
Ex. 22 Psalm tone, third tone, first termination, pg. 114

The sole psalm tone for the fifth tone provides another example of the rare third-third ascension, again according to a final-mediant-

reciting tone pattern. Like in the earlier example of this in Beatus vir, only the upper leap is filled out, in a way where a series of descending thirds hover around the point rather than fill it out with a set of stepwise descents.


Ex. 23 Psalm tone, fifth tone, sole termination pg.115

There are clearly some sort of structural reasons for these situations–and it is probably no coincidence that both of the examples that feature this are the fifth mode. In the middle of a piece the final tone might not necessarily be the resting position of a linear idea. In these situations, especially when the tones are authentic and not plagal, where the reciting tone is a fifth as opposed to a third from the final, the mediant might serve as a middle ground.

In a plagal tone because the reciting tone is generally closer to the final than in the related authentic tone, the leap of a third might not necessarily be filled out due to the gravity exerted by the final in the end of a line. For example, compare the line that begins Angelus Domini descendit de caelo with the line that occurs at de caelo.
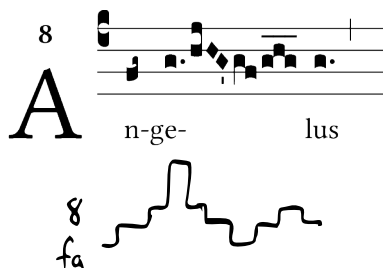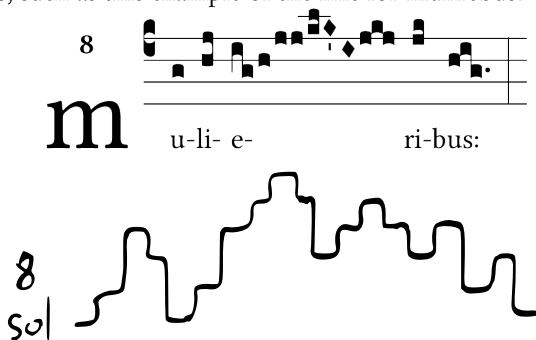

Ex. 24 Angelus Domini..., pg. 787
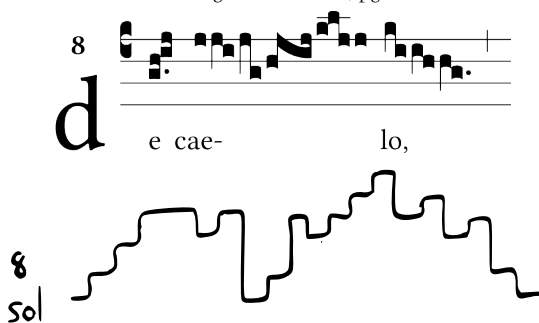
Ex. 25 Angelus Domini..., de caelo, pg. 787

The reason for the second example filling in the gap made has to do with two unique qualities: the length of the line and the position at which the line currently is in relation to the text–including very obvious aspects of word painting in melismatic writing–and the current position of tension, i.e. the position within the mode that the line current is resting.

This chant is a bit of a puzzle itself. In the situation where the leap is filled in at de caelo, the B is yet to appear until that moment, as if it were hinted as a point of tension by not being filled in; in fact, each line that follows that includes a leap of a third to C fills in the B afterwards, such as this example of the line for mulirebus:


Ex. 26 Angelus Domini..., mulirebus, pg. 787

So outside of this example where there might be a specific compositional conceit for not filling leaps of a third, it can be understood that not filling in the gap created may have more structural connotations in modality, rather than being a compositional decision or even simply not following the rules. This assumption could be as true in any other structural system, so the use of a series of thirds without filling in the gap with a stepwise movement occurs in the late Renaissance and early Baroque because the structural qualities of triads and new, more implicitly triadic tunings, are highlighted in doing so. Though the musical means remain the same on the surface, the structures behind that determine how music itself functions have changed.

So, dealing with these apparent distinctions, music that chooses to not fill out the third is not breaking the Palestrinian rules because it is working according to different axiomatic truths, and is rather affirming those. As far as I am concerned, the reasons are not quite as focused on the question of rules for their own sake, but rather according to the structures that guide the system. We will find in

further examples that the patterns and models of melodic line are more driven by the qualities of the structures at hand, rather than by arbitrary distinctions. Rules exist because they are implied by the methods in which we work, but those same methods also might lead us to break rules in other situations. What is important in studying musical line is understanding the contextual reasons for which the rules are acknowledged and then making sense of where they might be broken for reasons beyond "good taste." The question of whether or not something sounds good or not is not necessarily derived from the system itself, that is the decision of the composer, and their skill and trade is working within the system to create something meaningful.

That itself explains the basic idea of this section: in a purely modal framework, which is one we are focusing on in engaging with our source texts, so all leaps are to be filled in at some point or another, unless the leaps function according to a final-mediant-reciting tone pattern; therefore, the position in which the rule is broken is not arbitrary, but rather informed by the qualities of the musical structure.

With this understood, let us look at some more fundamental examples of how thirds are used. Naturally, Credo I is an excellent example of the alternation between thirds and seconds, as a descending third is always countered by a rising second.

Ex. 27 Credo I intonation
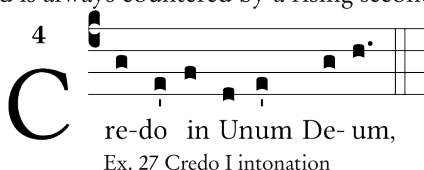
We can already start seeing, based upon the other examples, the reasons why this line might have been composed in this manner. We have here, as detailed in the earlier section, a standard neumatic setting, so the line follows a certain set of patterns as an intonation. In a more melismatic setting, most likely the rising third leading to deum might be countered with a descending second. But I also believe there might be another structural aspect playing a part here, which will be covered in the section on cadential formula

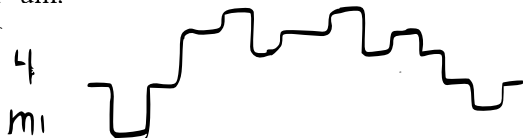This also occurs in the intonation of Creator alme siderum. The leap is later filled out by the remaining sections of the verses, but because the intonation exists to set up the reciting tone, we see this initial downward third not filled in, just as in the psalm tone examples.

Ex. 28 Creator alme siderum, pg. 325

And this simple pattern of a descending third into a rising second is found in more florid lines as a way of creating a space for smaller note values to fill in.

Ex. 28 Opening of Dufay's Flos Forum

Dufay's writing is exceptionally lovely. It is not simply a delightful pattern, but it feeds into itself by descending a third again, from which it must fill in the space again. The whole line is focused around a pole pitch, so the line, as well as those that follow, spiral around A.

Another way of dealing with filling in leaps in a more melismatic manner is to chain a series of third together.

Ex. 29 Angelus Domini..., Alleluia, pg. 788

Ex. 30 Domine, refugium..., a saeculo, pg. 1067

What this does is use the tension of the final-reciting relationship to pull the leap in a direction that will be filled out by another third that is being pulled in the other direction. In the alleluia the reciting tone, C, holds the line, and the attempt to return to the final, G, fuels the downward third that then moves stepwise; however, because the line is not yet ending, the reciting tone still acts as a point of polarity, so it leaps back up again, filling in the space made. Notice that in the following third that the same pattern occurs, an attempt to return to the final and a reaction from the reciting tone. This occurs in the saeculo setting as well, though of note here is the outstanding melisma where the thirds are denied resolution until the termination of the line. This is actually a really wonderful instance of word painting, as saeculum is referencing a time or era.

Thirds, when used properly, are wonderfully sweet, and, as we will see in coming sections, an indispensable tool In writing many varieties of lines.

Fourths and fifths are not too complicated at the basic level, as they are really just extensions of thirds in practice; however, there are some rules of thumb that I find useful to understand.

Fifths are usually, if not best, used for ascending lines. This is possibly due to the ease of singing a rising fifth combined with the opinion that descending fifths simply do not sound as good as seconds and thirds do. It is not a question of something being "natural," but there is a sense that descent by a fifth is certainly not the most pleasing option among others. A descending fifth is often flat or, worse, anticlimactic, because the tension that exists between a tone and its dominant is removed when directly approached.

This is not to say a descending fifth is never used, it exists in the opening examples I gave of Lassus and de Wert's writing, and Ockeghem's famous Missa Mi-Mi is named after the initial descending–then immediately ascending–fifth in the bass voice, but aside from it occurring at the beginning of each part of the mass, it does not really appear that frequently as a descending interval.

Ex. 31 The "mi-mi" motif of Missa Mi-Mi

Now of course, all of these occur at the very beginning of the music, so it cannot really be "anticlimactic," as I noted, because nothing has really been set up. This sort of pattern does occur in a few melismatic chants, such as one of the settings of Agnus Dei:
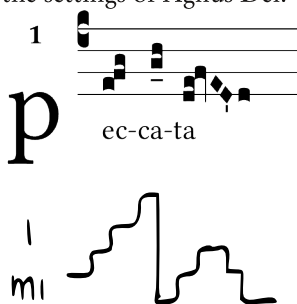
Ex. 32 Agnus Dei, peccata, pg. 21

Just as in thirds, jumps of this size are always meant to be filled in at some point afterwards, and in Credo I the jump of a fifth on saeculi is filled out with the Amen cadence.

Ex. 33 Credo I, saeculi. Amen., pg 66

The choice of using the fifth here before the cadential formula is most likely to set up the space for it. As in cadential formulas, the more melismatic a line is, the more likely it will exist to fill a gap made by a leap, and the point of the Amen cadence must be reached prior to the termination process. Note that generally a fifth is the distance for a cadence due to the relationship inherent to the final and reciting tone.

A simpler use of the rising fifth can be found in exsultavit cor meum in Domino.

Ex. 34 Magnificat, exsultavit cor meum, pg. 1612

In Kyrie fons bonitatis, a leap of a fifth occurs, but only one initial stepwise tone follows, with the line rising only to then fall and finally fill in the gap when it reaches the final.

Ex. 35 Kyria fons bonitatis, page 19

There is a certain trait I tend to see in leaps that occurs after more florid sections in other studies of music. According to my interpretation, there are two manners in which leaps of any interval are used. Generally we identify these as the first of the two: the basic assumption as a preparation of an ambitus–the space that is eventually filled in–yet, there also might be spaces in which an ambitus is predetermined by a previous section of music, and the leap that occurs after is not filled in because that sort of movement already occurred.

We have already seen sections where the leaps are not filled in immediately before, as in the melisma in the a saeculo setting, because delaying it creates tension at key points in the text-–often for symbolic purposes—so it should not be surprising that we see this in leaps of a fifth.

So what I think is plausible is that a leap might not be immediately filled in, but much later in the line, because the space has already been prepared. See, for example, this alleluia, where the leap of a fifth is followed not by any sort of filling in, but by a quite rare descending sixth, after which the gap is slowly filled in.

Ex. 36 Alleluia, The Circumcision of Our Lord, pg. 441

Note something about this though, in the section prior to it, the space of a fifth was already filled in. In each section where a leap occurs, it is not only filled in, but the leap of the fifth is also prepared ahead each time. The fifth might be said to be a possible result because the ambitus was already predefined.

Here, in Eripe me, Domine, we find a descending leap that is prepared ahead of time, and is filled in later in the phrase:

Ex. 37 Eripe me, Domine..., Acuerunt linguas suas, pg. 725

And another place this occurs, with a fourth, is in the opening section of Speciosus prae filis hominum:

Ex. 38 Speciosus forma prae filiis hominum, pg. 434

The reasons for these types of compositional decisions must be something along the lines of: if a leap might occur, and for whatever reason it is not filled in immediately, then the space before it must most likely have to prepare the leap to begin with. In the example provided earlier, the sections before the saceuli have an ambitus that outlines the space that laters occurs in the leap (Ex. 39).

These sorts of "both" side functions seem to occur more with fourths across the board, though such a distinction might just be more to do with the use of the fourth more often as a leap larger than a third. The fifth, and the "both" side functions, seem to occur very frequently in Alleluia settings, which is perhaps a trope used frequently in the composition of a text that is reused frequently in responsorials where the verses will change, but the core form requires Alleluia intonations, making the decision to determine certain intervallic patterns as core to the word a perhaps a time saving, thematic, or symbolic gesture.

Ex. 39 Credo I, Et exspecto..., pg. 66

Of course, that makes sense, the decisions that go into writing a line are not always those of inspiration or word painting. The value of these sorts of patterns is that they can allow for this type of work to be composed, and even improvised, without much effort. Certain aspects of composition are those points of intuition, inspiration, and genius; yet, a series of works cannot always be composed 100% from scratch, that is quite an endeavor, even for multiple people. We develop tools just for these situations: where we need to work with a new responsorial, we already can have part of it prepared on the spot.

This leaves us with a highly used, but rather peculiar interval in the fourth. This interval appears in antiphons, alleluia tones, communion hymns, special prayers such as the magnificat, and most florid chants at some point in time, but in a majority of the "ancient" tones–especially ordinary, recitation, psalm tones–barely appears aside from a very peculiar instance of the tonus peregrinus[5].

We already know that fifths rarely appear in these tones as well, with a majority of the line being stepwise and third movements. The development of larger leaps is perhaps not so much a question of age, but rather genre and purpose. A tone that is used for prayers, lessons, and lectionaries will make use of termination or cadential patterns that make use of a descending fifth or fourth.

[5] The tonus peregrinus is outside of the church modes and is thought to be much older than the other tones. Surface analysis of transcriptions of older music, such as that of the ancient greeks, reveals a certain taste for descending fourths, but there is not really much to make of this other than blind conjecture. I would not be shocked if the peregrinus was a holdover from older greek modal practices, knowing full well that there was, before the "gregorian reformation," a possible similarity in Eastern and Western chant practices in various parts of the Christian world; however, the modal system of the Byzantines, the octoechos, most likely has also been altered and reformed from the systems found in the late Roman empire, so there can be no connections made between the current systems.
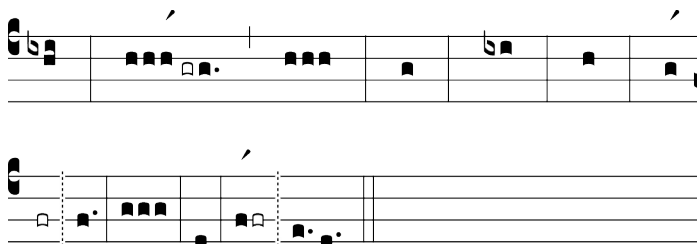
Ex. 40 Tonus Peregrinus, pg. 117

L Ecti- o   I-sa- i- ae prophe-tae.

Ex. 41 Tone for the Phrophecy, pg. 102

m e- a ma-xima culpa.
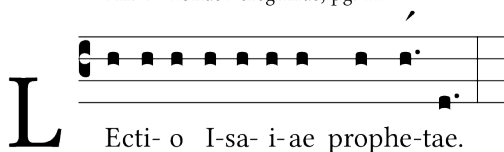
Ex.42 Tone for the "Confiteor" for Pontifical Masses, pg. 111

And these patterns for the plagal and perfect cadence in recitation are consistent among most of these tones, presenting a sort of "ancient" air around them.

The fourth moves, just like the fifth, both up and down; however, I do believe the fourth occurs more naturally as a downward leap than the fifth because the tension exerted by the fourth is stronger than the fifth, so the result is actually rather pleasing as opposed to being a bit bland.

Perfect cadences in the form of the fifth present us with much less tension than others due to the relationship between these two tones are structural points.

The fourth, as an inversion of the fifth, provides a more interesting cadence, and thus descending interval, because it works as a more unstable inversion of an otherwise stable harmony. So in many tonal progressions you might see the basic structure as I-V-IV because the leap up is more interesting at a fifth, and the leap down is more interesting at a fourth.

We have already seen several instances of the fourth in previous examples, but it is useful to look at some appearances of it at greater depth. A more extended example of its use can be found in Universi, qui te exspectant, where there are multiple uses of it both upwards

and downwards, as well as the use of the fifth in a larger context.

U - ni- ver- si qui te exspec-

tant, non confundentur, Domi- no.

Ex. 43 Universi si qui te exspectant, pg. 320

This is sort of a combination of the aspects of leaps we have seen so far. It begins with a series of thirds, a triadic style pattern, a fourth that is prepared ahead of time and is not really filled in until later in the line, and a fascinating series of thirds alternating with rising stepwise movement.

Populus Sion is a bit more standard of a linear concept, but what I think is of value here is noticing that the first leap is not necessarily fully filled in, and the rising line that follows the descending fifth serves to fill in both.

P O- pu-lus Si- on, ec- ce Do- mi-nus ve-

ni- et ad salvan-das gen- tes:

Ex. 44 Populus Sion, ecce Dominus veniet ad salvandas gentes , pg. 327

POINT AND LINE

Finally, in this setting of voluntatem tuam there is a very effective slow ramp up from repercussive to stepwise to third to fourth, and this leap is never filled in until the termination, partly because I believe the space has already been set up in the process, and the same could be said for the descending fourth that follows. It is technically filled in at the next section, and that also serves to set up a leap that must fill itself in. The last section is also wonderful, a rising fourth that is partially filled in to create a space for that gap to be covered by the apex of the termination.
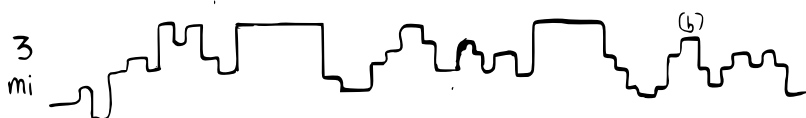
Ex. 45 Eripe me Domine..., voluntatem tuam, pg. 571

So it might be obvious how the fourth behaves, and there is not that much to discuss about the fourth that differs from the fifth in terms of practice. Both must be prepared and resolved in the same manner as as any other interval, it is simply that they should be used with a bit more discretion than thirds, which are a much freer tool in comparison.

With all of this understood, now we come to the question of cadence, and in it one of the greatest questions of line itself: though we know where we might begin, and where we are now and where we might be going, where is it we are going to end; moreover, in what ways do we separate ideas, what differentiates linear ideas from what another?

I wrote before of a certain quality of perception, that we understand that lines are not simply melismatic units—singular tones united by legato—but that lines are also combinations of tones, understood as being related to one another in some composite form. What determines a line, in any situation, is a series of distinctions that can come down to:

Structure — Cadence — Space

Where structure is a total idea, cadence is the finality of a structure, and space in what exists between structures; yet, it also be might conceptualized in another way:

Point — Line — Pause

Point is every aspect that is distinct that might be interpreted as being part of something larger. Line is every experience that is meant to be understood as a singular idea distinct from individual point. Pause is every experience that serves to break up sections to delineate the distinction between point and line.

However, pause can be point, even line can be point, depending on the context: a pause can simply exist, but that does not mean that it is a pause at all, because what meaning does a pause really possess without something to pause? Likewise, a line might be, but a line in itself cannot be fully understood until it is placed within a larger context. When I give you the examples in this text, I am giving you just that, lines that are extracted from their context; for, fragments are lines, but fragments are also just collections of points riddled with lacunae that remove context, and thus remove purpose.

A point has no purpose in itself, it cannot create rest, nor tension, nor cadence. All things are only given value when placed in the context of others, when juxtaposed against something else. Things come into existence because there is something that causes them to come into being, something that can provide the understanding that they are distinct in comparison to another. It is like the calligraphic maxim: the page is not empty until the first mark is made. Silence cannot exist without sound, and sound cannot exist without silence; silence is sound and sound is silence... what determines what either

actually is at any point in time are the contextual clues for them being understood in one way over the other.

You cannot identify space without having a contextual structure, but you cannot have a structure without delineating cadence; yet, you cannot delineate cadence without having a juxtaposition that requires cadence. Where you begin is not necessarily as important as what occurs after you begin, though where you begin always determines the level of tension, and where you begin always determines the level of desire for tension, and both of which, in combination, lead to the unbearable need for cadence.

Formal traits and structures are the results of things in conflict with one another, though it seems that we sometimes instead see formal ideas as guidelines or rubrics when they are really simply codified based upon tensions and resolutions that are observed at various levels.

When we approach pause, we are not simply approaching it as a space or a silence. Pause is not space, and it is not silent. Pause is as long, as loud, and as tense as the point in which it is placed in relationship to. So pauses are to be understood as intrinsic to cadences, that they too must induce this desire to return to a point of rest, and they themselves often reflect, and amplify, these levels of tension found in the points in which they are placed. Because the modal system tends to want to pull the line towards one of the points of polarity, ending at a tone closer to either one of the two points constitutes a state of varying levels of repose; thus, where we place a pause, we place it not to negate or void, but rather we place it to accentuate something.

The lengths of the pauses are important structurally, and in the case of setting words to music, the decisions one makes in determining the length of a pause are derived from the context of the text. A short breath pause, the small tick at the top of the staff, and the small bar are placed within phrases, the full bar occurs at commas or colons to represent the end of a statement, and the double bar at final cadences to represent the end of the current text.

This understanding of the function of pause is necessary because the types of cadences are determined by positions within the text, and are therefore somewhat related to the type of pause placed at a section. So, when we talk about cadences, we need to understand them in the context of three factors:

the position in the text — the position within the mode — the type of pause used

A full cadence, as seen in reciting tone formulae, always occurs with a

full pause–two bars. The two bar pause always signifies a space within the text where a complete section, perhaps a verse, is understood, and all of the music is confined within the context of this macrostructure. It might be understood as a line composed of smaller lines. Within these complete sections are phrases that possess generally incomplete cadences, which I would label "phrasal cadences."

The distinction between phrasal and full cadences is in both the final tone of the phrase as well as the manner in which it approaches said tone. A true full cadence tends to approach a final tone at either repercussive or stepwise intervals, whereas a phrasal cadence will approach any tone at any sort of interval. Take, for example, the antiphon Facies unctiones.

Ex. 46 Facies unctiones..., The Mass of the Holy Oils, pg.661

As a whole this chant is actually a very useful example on how tension between the final and reciting tones can be used to delay cadences and delay a sense of finality.

The intonation places us at the point of subtonic instability immediately, and then resolves it with the gravity of the final in the beginning of the chant proper. The intonation of a chant, as we have seen in Credo I, is meant to not simply prepare the reciting tone, but also create a sense of motion by working against the initial polarity of the final. Notice that it begins on the subtonic and is immediately drawn to the final, attempts to shift to the reciting tone, but is pulled back down. The following section, unctiones oleum, shifts the gravity to the reciting tone, but because the phrase ends with a comma, there needs to be a sense of finality because the punctuation determines the length and quality of the upcoming pause. Et filiis Israel dices returns to the reciting tone, and note that this section, perhaps due to some extra musical inspiration, takes on some formal aspects of a ordinary or reciting tone: et filiis is the intonation and Israel dices takes on a more elaborate version of the mediant fluctuation. It ends on the reciting tone because the tension of the phrase is a pause concerning what is about to be said.

At Hoc oleum the section before the pause ends on a descending third, which is not a true cadential step even though the final tone of that phrase is the final of the mode, D. Note that the second section, despite coming to a full stop, and descending to the tone stepwise, does not end on the final, but actually on the subtonic, C. The section of text is not complete, so it would not necessarily be correct to cadence here. There are a few other reasons why I believe this phrase lands on C. It is the subtonic, so the tension created by this relationship to the final means that the phrase is technically more "unstable," requiring a "consonant" resolution to it; however, it also creates a intervallic relationship of a fourth with the reciting tone in the next phrase. Even if there is a pause that separates these two tones, the memory of it makes it a leap for the listener, and this jump from a highly unstable position to the reciting tone, another point of tension, can be quite powerful. The last phrase provides a repercussive cadence, evoking the initial descending third of the section, but giving it a sense of finality in the process.

The psalm verse is simply a written out psalm tone with some ornamentation. You can break it into two parts: Gratias Domini in aeternum cantabo, and per omnes generationes annuntiabo fidelitatem tuam. Both of these correspond with the sections of a psalm tone, the first being intonation-tenor-flex and the second being mediant-tenor-cadence. Finally, the intonation returns and the chant

is sung da capo al P.S.

In general we can see that the structure of the antiphon is built around maximizing the tension between the final and reciting tone, using auxiliary tones below and above them to maximize the instability as to emphasize the state of rest found at both phrasal and full cadence.

Of course, this structure is tone 2, a plagal tone, so perhaps we should look at its authentic form. Take a look at the communion antiphon from the same mass, Praedicabant Apostoli.

Ex. 47 Praedicabant Apostoli..., pg. 664

We begin on the mediant, F, and it rises up to the reciting tone for just a moment, only to be pulled back down by the weight of the final. The subtonic again pulls against the final, creating tension around an auxiliary tone. Of note is that in this chant, the mediant tone becomes a major force in pulling the line back and forth between the reciting and final tones, and there is quite a lot of tension in the phrasal cadences: agerent ends on G, oleo ends on F, gros on C. Only two sections of the chant–the intonation and the closing phrase–possess a truly final cadence. This is, of course, because the chant is shorter than the previous example, so the whole of it is essentially one line built up from a set of composite phrases that exist to build tension for the cadence to resolve.

And this is also true of the early tonal music that develops from modal practice. Take, for example the opening sinfonia of Monteverdi's Il ritorno d'Ulisse in patria (Ex. 48). In six bars you see much of what the prior examples highlight: a melodic line is a composite of point, line, and pause, and the distinction between a

Ex. 48 Sinfonia, Prologo, Il Ritorno d'Ulisse in patria, SV 325

fully linear concept versus a phrase within it has to do with the position within the musical structure that the line approaches in cadence.

The final cadence of the line is a D major chord, and the line, though beginning with D minor, prepares this because the first phrase ends on A major, which sustains the point of tension between the tonic and dominant functions of the scale—D against A, a I-V relationship. Simply put, because A major becomes a point of tension, then the resolution must be D major due to the structural relationships of the scale.

This is no different than in the modal practice. In another chant, Domine quinque talenta tradidisti mihi, note that the final cadential point of the beginning, and the first "full stop" pause, is sum. All other sections, though they have shorter pauses, are not isolated units because they are providing a point of tension, and a line cannot be properly completed without resolving any sort of tension.

Ex. 49 Domine quinque talenta tradidisti mihi, pg. 1311

It is not just that lines are written according to sections of a text, so we can parse what will be a full cadence based on extramusical context. For some reason we are wired to understand that a full musical statement is one where tension is created and resolved. If tension is never resolved then we never really perceive a musical statement to ever reach a point of repose. Even if there is a grand pause, the music does not feel complete, we are left hanging because we expect the tension to resolve.

A piece of music can be any length, possess any sort of extramusical associations or structures, work within any system, as long as it works to resolve the tensions created by its structural makeup. If you work against that urge for resolution, then even if you identify the music as complete, the listener might not. Hadyn uses this in the final movement of one of his string quartets, Opus 33 No. 2, where the famous "joke" is his repeating of the opening phrase of the piece at the end, leaving what is otherwise only a section of a complete eight bar melody as the final statement.

Ex. 50 Final 3 bars, Finale, String Quartet in E-flat major, Op.33 No.2, Hob.III:38

The music ends on E major, but it does not quite have a cadential feel to it. It is akin to how a chant intonation is not a line in itself, but rather a scaffolding erected in order to build a line; by extension, a cadence occurs because a cadence is built up as to occur. Just as in a psalm tone: intonation–tenor–flex–tenor–mediant–termination. Intonation–termination would not create a true linear concept.

If we took that sinfonia and removed bars 2-4, what we would have would be akin to intonation–termination, and the result is not

Ex. 51 First 8 bars, Finale, String Quartet in E-flat major, Op.33 No.2, Hob.III:38

quite right; it feels as if it is a fragment. In the Sinfonia, the point of interest—the moment in which the wave crests and begins to descend—is the phrasal cadence at A major. It is this point that makes the return to D major feel like a total experience, and without this single bar the music is missing an essential element. Line requires these fluctuations that exist between intonation–termination in order to build the tension, because the opening idea is a means to tension, but not necessarily the tension in itself, as it is merely just point. As I wrote initially, line is a composite of point, it is many things being juxtaposed with one another, and in juxtaposing points, their distinct traits in relationship to each other are highlighted, and then this facilitates tension.

Tension, and by extension, expectation, is innate to any musical experience because each musical moment, when understood as a composite whole, either sets up a point of structural tension or responds to it. This is an intrinsic element of musical structures as it is a result of how structures are formed. So when one creates tension in the initial phrase, then one is expected to resolve it, not according to style or taste, but according to the system itself.

The natural extension of learning how to write line is to learn how to combine multiple well written lines into one sound; however, before really engaging with counterpoint, it is actually of use to understand harmonic relationships between intervals, because what is desired in consonance and dissonance in polyphony is implied in the musical structure itself—and, personally, I think that harmonic functions are an extrapolation of melodic conception for some reasons I will elaborate on later.

There are three general categories for harmonies:

Perfect consonances — fourth fifth octave

Imperfect consonances — third sixths

Dissonances — second seventh

Now there are multiple reasons for these rules, spanning from some questions of objective quality to others that are more about taste; yet, I think there is a very simple, and politically neutral, way to explain this: some motions simply sound better, as are more resonant harmonically than others; and—as you might guess from previous sections—this harmonic resonance is directly related to their relationships to the overall structure. Perfect consonances are the result of the tonic dominant relationship, with the fifth being obvious, and the fourth existing as a result of inverting the fifth—the distance between a tonic and dominant is five when rising, but four when descending. Imperfects are the result of the weaker mediant tone, and dissonances are the result of tones that are unrelated to these core intervals and are simply results of the construction of the musical structure.

As you might have noticed in the examples provided over the last sections, these intervals play a role in how melodies are formed, what patterns are used, and what situations possess the most tension. The seventh is generally a rare occurrence in many of our examples—the distance is simply just too far away from how the final and reciting tones interact in melodic conception—so it naturally comes to be one of the most dissonant tones, whereas the second is always used stepwise because this pattern of movement will always serve to resolve itself.

But this might raise a question: sevenths are dissonant via distance from the core structure, but seconds are listed with them as dissonances. This is, for me, somewhat of a misnomer that is caused by the development of triadic theory. Seconds are highly neutral because they are just passing tones: things not strongly rooted in the

structure, but that still occur within melodic lines via stepwise movement; in contrast, sevenths are rare, and when they might occur it may be more often in inversion, as in Predicament Apostoli (Ex. 47) where the tension of a line in the intonation tetters around the final, D, and the C underneath draws some attention. The "under second"—which is just the inverted seventh—might find more use in many melodic situations due to proximity, and the dissonance of the seventh is sort of mitigated in this inverted form because it simply becomes a passing tone, rather than one distant from the tonic and dominants.

This interaction between these tones leads to the unique harmonic quality of stepwise movement. It might not appear to be "dissonant" and avoided, but the very nature of stepwise movement is one of transience: it is always used in direction motion towards a point of structural significance, so the second degree of a mode or scale is given prominence only in two situations: as a passing tone away from the final, or as the final step in a cadential formula, wherein the latter it might become essential in being resolved by the final.

In a more tonal aspect that we might be familiar with, the nature of a suspended chord in the sus2—CDG instead of CEG—is that the unrooted, perpetually moving as to seek resolution, quality of the second destabilizes a chord as to remove any sense of relationship to the greater musical structure, which then desires to resolve to a point that is firmly set within that structure.

So, it should be better said that we need to understand the concept of consonance and dissonance in terms of stability and instability, rather than as one of "good" or "bad" sounding; that is, the understanding that a stable interval is one where the line is directed towards it, because of its role in the musical structure, and that our expressions of taste are informed by these structures as they become cultural and aesthetic pillars. The first and fifth degrees of a scale represent the points of greatest stability, and thus the places of greatest linear interest, due to how our musical system is formed; therefore, all other tones and intervals are then to be understood as gradual distances away from the core structure, and are then of less importance, which then means they will not draw the line towards their points within the mode or scale, but rather act as points of passing, of movement towards a location at either point A or point B; therefore, they, not being points of repose or of rest, become points of tension and of anxiety, and therefore become more "dissonant" in comparison to the major, "consonant," structural tones. Understand that lesser consonances and dissonances are not weaker or bad

according to questions of taste, but are rather just not meant to be points of interest; rather, they are hallways between rooms, where you pass through them only because it is necessary to do so to reach the intended destination.

This sort of understanding of music influences questions of taste, because what we tend to think is of importance, and also what we already have understood as of importance, then determines how we react to certain things. The distaste of, and affection for, certain patterns is one determined first by the musical structure we are embedded within, and then by what traits we decide to highlight afterwards.

So when you see thirds as a movement tool, they always reflect this sort of in between state with the final and reciting tone. Thirds are used to create melodic variety—and, as we have seen, some wonderfully exceptional movement—because they have some sense of structural and intervallic significance to them, being the mediant point between the two spaces, perhaps as if a kitchen or—and I do not mean this facetiously—a bathroom, if the tonic and dominant are main rooms.

Thirds can provide spaces where you can move between the tonic and dominant poles, but never really fall into either. What composers are doing when they write stretches of thirds that gradually shift in one direction, then another, then back, is that they are delaying our expectation of the piece of music coming to rest at one of the harmonic poles. See, you can set up a certain structure, and there is an implicit understanding where the music might go and where it should end; therefore chains of thirds always serve to prolong that process, as leaps are to be filled in according to some structural necessity. We can never fully move towards a point with the interval of a third, because it is understood that once we move that distance, there will be a harmonic reaction to it in filling the gap.

So perhaps you can understand that intervals themselves have a harmonic weight that influences everything, not merely harmonies. Writing melody itself is writing according to harmony: in every leap you write, you are making harmonic implications. Recall that opening line of the Beethoven mandolin sonatina provided in my introduction to the musical methodology. In that line all of the harmonic information necessary to understanding the context of the music is there, even without the keyboard's harmonization.

Ex. 52 Beethoven's Mandolin Sonatina in C WoO 44a

It begins with two C major chords in arpeggiation and ends with a descending C major scale. Between these two points it features perfect interval leaps to the tonic tone as the apex of the melodic line, tends to resolve a stepwise motion with a leap of a third, consequently turning a dissonant interval into a consonance, etc. Within just this one line there is far much more information about the musical structure than it necessarily appears at first glance, and when you listen to it, the line continually beats into your mind that you are in C major, so that when the piece later changes key, you will be able to identify the transition. The classical harmonic structure is one of creating the understanding of a key as to slowly destabilize it, modulate to the dominant to heighten that tension, and then resolve it at the original, tonic key. The wild roaming and near lack of key center we identify in Late-Romantic and early 20th century music occur after Wagner's extremely fluid harmonic language destroys the value of the musical key as intrinsic to the musical structure. In destabilizing the classical structure of tonality, this harmonic structure becomes further pulled apart to the point where the initial key might not necessarily be the identifier of a structure, but simply where it begins, and where it could end.

These situations of stability and instability also determine the types of patterns that occur. Recall that perfect leaps often never occur twice in the same direction in our examples, and it is not necessarily just a structural trait, but because it is often not necessarily as interesting harmonically, and melodically, to do so. The stability of a perfect interval means that it must be balanced with other intervals of less stability in order to create more interesting patterns. This is why leaps are meant to be filled in, and it is not quite a question of balancing or responding or an action, or just that the structure wants to pull music in one direction when it is resting at one pole, but rather that the movements that fill in the space created are generally going to be smaller intervals, and therefore will create more tension in the process.

The longer, more melismatic—and more likely to employ imperfect or dissonant intervals—a line is, the greater the tension will be created in the process; in contrast, the more syllabic a line is, the less time there is to spin in extra intervals outside of core tonic–mediant–dominant pitches, as there is only so much of the text to work with before one must reach any sort of phrasal or final cadence.

If we look at the highly florid section in the earlier example of Flos Florum, we might notice that the line at "fons" is not just word painting, or just a virtuosic spray of notes, but it also creates quite a

lot of tension around the expectation of what will be the cadential tone, A, in tandem with the harmonic background of the lower voices.

Ex. 53 opening of Flos Florum

Take note of the decisions Dufay makes in the melodic line, and how they imply certain harmonic relationships. The line begins on the mediant, C, and after being pulled in the direction of A, it ascends to its dominant, E. The following leaps are between perfect tones. This might seem strange, after all I noted that downward fifths are oft anticlimactic, but note it in the context of the harmony: the first tone of the bar is dissonant, a tritone relationship in DFB, but it resolves to DFA immediately as and then is pulled back towards the dominant; yet, the dominant of A is E, which is an incredibly dissonant tone against this same harmonic background, making the total harmony DFE. So what does Dufay do? Resolve it by descending a fifth to DFA, then using the requirement that one should fill out a leap by shifting a fourth to DFD. See, he cannot move stepwise, B, or a third, C, because these tones are dissonant against the background harmony, DFB being a tritone and DFC being a seventh in relation to the tenor's D. He can only leap to one

pitch to fill in this gap.

The double B when it descends is interesting because it prolongs the movement back down to A with a tritone again, but what is more interesting is the next section before the cadence. The line hovers around the dominant, and then following a series of thirds leaps to the under fourth, the same tone as the dominant, D, then jumps back to A for the cadential turn. The tension of the line is being held by the D at both ends of the octave, and it continually serves to deny any state of rest on the cadential tone, which then gives the line its spiraling qualities and takes a relatively stable and static harmonic fabric sitting beneath it, CEC and BbDG, and gives it much more motion and interest by dancing around tones that are dissonant in the context of the harmony. The final cadential harmony is an open fifth[6], AEA, which provides a sense of stability and finality to the whirling line.

The total harmonic language always resolves on a stable intervallic structure defined by the system of construction. Here in this modal piece, we see it as the interval of a perfect fifth. Note the total harmonic sketch of these first 6 bars:
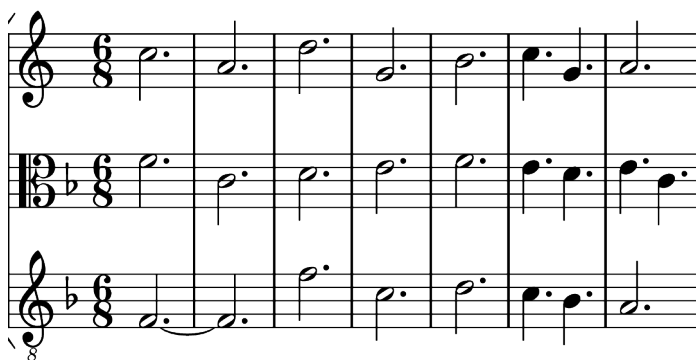
Ex. 54 Rough outline of harmonies in the beginning of Flos Florum

6 Called "open" in tonal theory because it lacks a third to create a definite triad. The strength it possesses is unambiguous in modal music, because the determining structure of the system is the relationship of a fifth; however, in tonal music the structure is determined by the triad, so an open fifth becomes an ambiguous harmony. This absence of proper harmonic functionality in the context of tonal theory is also the reason for the sus4 chord—CFG: where the sus2 is seeking resolution via the existence of the passing tone second, the sus4 is ambiguous in that it is fully stable, being built from perfect consonances; yet, it is not suitable to serve as a cadence, as the modal system is no longer the basis for music. Composers in the modal era did sometimes employ what we call a "Picardy third" in their final cadence at the end of a piece, which is understood as a precursor to tonality in the use of the major triad as a cadential texture in an otherwise modal piece of music, as opposed to seeing it as a gesture that the music is tonal despite the modality of it. Today it is harder to understand this, because we just assume a piece that is tonal at the very least functions according to triadic harmony in its rudimentary cadential forms; yet, in "common practice" tonality there really are no modal functions, as a piece of music is firmly rooted in tonality in every section, not simply the beginning or end of it.

It begins on a perfect relationship in FFC, then cycles through a series of imperfect relationships— FCA, FDD, CEG, DFB, CEC, BbDG—to end at AEA. Just as in the melodic line, where the totality of the line rests between the tonic-dominant relationship, so too does the harmony exist within the framework of perfect-imperfect; however, unlike line, harmony functions as a more ambiguous use of the structure. What matters in a musical piece is that you finish, and maybe begin, on the tonic pitch, but what occurs between it can be more fluid as long as the structural points of departure and arrival exist in a functional relationship to the overall musical structure.

Put simply: if the interval of a perfect fifth is intrinsic to the creation of your musical structure, then the stable harmonies you should always begin and end with are perfect fifths. The imperfect harmonies—triads, thirds, sixths—are passing tones in the same way that every pitch between the final and reciting tone in chant are, and they serve just as much as a force of tension as the content of the melodic line is, as melody implies harmony, and harmony implies melody.

Thus, everything at the core of a musical system extends to melodic and harmonic "rules," which really should be understood less as "rules" and more as what is understood as best practice with a basis in the musical structure itself, not a textbook.

Standard harmonic rules forbid consecutive and parallel fifths, and though it is perhaps obvious why consecutive fifths are not used from a melodic standpoint, what we have learned so far does not quite explain parallel fifths, as they do not exist in a monophonic environment .

Parallel fifths are, in most situations, going to sound to us to be very weak harmonically as opposed to parallel thirds. There are a few reasons for this that are complicated questions of taste mixed with craft; however, the reason I will give for this is that—as in melodic writing—the more stable a harmony, the stronger, but also less interesting it is. Harmony is rightly an extension of melodic conception: just as you cannot write anything with the tonic or dominant notes alone, but rather write according to both of them, so too must you use multiple types of harmonic relationships to give each meaning. Recall what I said of cadence: the value or quality of something cannot be formed in itself alone, bit in itself in relationship to others.

Tension in the relationship between imperfect and perfect harmonies creates interest, and certain movements are more or less stable than others as well. Parallel movement is stable because you are shifting two pitches in the same direction at the same time, whereas

contrary motion is unstable because they are shifting in opposite directions. Stability and tension are informed by notions of similarity, when we recognize that the actions differ from one another, we understand them to not be the same and are thus at odds with one another.

When unstable harmonies are employed, they can move in a stable manner because their instability is still causing tension, thus the parallel movement carries interest where it would not with stable harmonies. When unstable harmonies move in an unstable way, they create double the tension, as in the case of thirds moving contrary and becoming sixths

Likewise, stable harmonies, when they move in an unstable way, form strong, consonant poles out of the tension. Consonance is rendered sweeter by dissonance, and stable harmonies are given a greater power by forming from an unstable motion.

This same notion is how dissonances are used in suspensions to take a harmony, make it pungently dissonant, and then resolve that dissonance into a powerful consonance. There is, naturally, a parallel in melodic writing: the stepwise motion might become a form of suspension, sustaining the tension of the line as it moves between the tonic and dominant poles. If you only work with consonances—leaps—then you are missing a key tool in developing tension, and without tension, the cadence is not as sweet.

All of these aspects can be found in the example provided earlier from Zefiro torna:

Ex. 55 (Ex. 13) Zefirno torna..., "note temprando amor"

Ex. 56 Zefirno torna..., "Piu puro argento..."

parallel harmonies in thirds, a perfect harmonies in contrary motion, oblique motion—one voice moving while another sustains—allowing for consonance and dissonance in passing tones, so the mild dissonance of the second can be resolved with a third that then leads to a unison cadence in contrary motion.

And for good measure, see another example from the piece (Ex. 56). The chains of harmonies are as so: a sixth, a contrary third; then, after the rest, the harmonies are reinstated with a unison, a parallel third, a second resolving to a unison, which then moves to a third via oblique motion with a second, a parallel third, finishing the section at a contrary unison. The final section begins with a fourth, a parallel third, oblique motion via a second, which resolves at what we recognize as the unison despite the top voice resting. The series of harmonies that begins after the rest finally allows for a longer series of oblique motions: it beings at a fourth, then a parallel third where the top is sustained and the bottom line moves against it in a third,

second, then a contrary fourth leads to something peculiar, a parallel fourth that is resolved with a parallel third, and then the section is finished with an oblique fifth.

It is the work of a master in the sense that it betrays itself in its simplicity. See, the harmonies are very easy to work with, all the rules are easy to follow; yet, in every situation the harmonies are the result of something else: the melody! In polyphony, harmony is useless in itself, it is not, and should never be, the primary goal of the music, but rather it is a consequence of how wonderful the melody is!

Polyphony, and harmony in general, is many voices in one, so one must understand all of these voices not as harmonic relations, but as lines that simply coincide with one another, and are placed in such a way they act in concordance with one another. In the harmonic sketch derived from the Dufay example (Ex. 54) we can understand that the lower voices which provide the harmonic background move in a manner not dissimilar to how a melodic line would, where there are leaps the space is filled in. When you learn voice leading in tonal music, you should be able to identify linear patterns in how chord progressions function, and these are, naturally, determined by the musical structure that allows for them to exist, as well as by the construction and qualities of the instrument that you learn to navigate tonality upon.

As far as I am concerned, the danger of not teaching someone melody before counterpoint is that it might lead to them thinking of polyphony—and beyond that, harmony—as painting by numbers, as filling in the music as is necessary for the total experience, rather than understanding each aspect of the music as individuals coming together to create something greater than what it appears to be on the surface.

It does not matter the role of a line within the greater musical fabric, all aspects of music, whether melody or harmony, function in the same manner, according to the same axioms, and the only difference in their roles is according to the lengths of their note values.

It always must come back to the axiomatic truth of the musical structure, and no matter how you choose to organize musical expression, the truth of it comes back down to its essence; as if a Platonic form, all that comes from the source merely mirrors it, and though the qualities might differ, a line is always a line, just as a square is always a square.

CLOSING THOUGHTS

Though by no means exhaustive, it is my hope that in working alongside this text—or at the very least in reading with some attentiveness—that you have developed, at the minimum, a strong idea of the basics of linear thought. I only write this because I think it is simply too difficult to really teach or explain the topic definitively, because in learning music it is less about raw data and more about how it might be applied, and that is certainly not something I can do here, nor is it really something anyone can do outside of a more hands on approach. Line is a simple task, but it is one with deep implications, so I hope that this text, though rather short, is of value in spurring you into identifying, thinking about, and more importantly, engaging with it at a level beyond the simply superficial. Though this work deals with one system, and one structural aspect of melodic writing, the methods and ideas that allow us to understand melody can be understood to apply to any musical system, as I did sporadically with the few tonal examples. The core of what I believe matters in understanding line, this "linear hermeneutics" as I deem it, is that you understand the musical system that guides the line, the overall line itself, the inner workings of the line, and the approach of the composer in creating the line.

I have tried my best to express those aspects of line in this work; yet, for me, at the most basic level, what you have read—and hopefully, practiced—here is universal, because it is the essence of the human voice. When discussing it in terms of specific structures, the most important thing to remember is that everything we deal with is an implication of the methods in which we formulate our music, not only in our musical systems, but in our approaches to making music in the first place.

Remember that when we began, I wanted to frame this as not a cerebral practice, but rather as one more humanistic, one that is understood to come from simple things, yet have much greater implications. We began with the voice, with speaking, identifying how the sounds we make might relate more to our musical experience than we first expect. These sounds we make might determine our musical structure, and the musical structure in combination with social and cultural influences might determine a musical practice, which then might develop into a musical tradition. When you begin learning music according to a tradition, practice, system, or structure, you are engaging with music according to some basic principles, and it is the essential truth of a method that determines the result, because it is impossible to properly compose anything exterior to a system if you fully align with that system, because the way of thinking and acting according to a system is intertwined with deeply held

philosophical and aesthetic notions.

There is a story Chou Wen-Chung would tell where, when he first came to Boston, he was sent to Bohuslav Martinu to study. With him he brought strict Bachian fugues written with Chinese melodies. When Martinu played the music, he turned to him and asked, "why?"

You cannot overcome the differences between two musical practices, two musical systems, two musical philosophies, because they are always, without question, incompatible at the basic level. For Wen-Chung, this was a confirmation that he should not see his path as a Chinese composer trying to write according to a western mindset, but rather that he should accept his own tradition and find the music from what he wanted to express, instead of formatting it according to what he expected was proper for the world he was engaging with.

You cannot create anything that is disconnected from yourself, you are as intrinsic to your music as your musical structure is, because your practice is tied to your musical structure. And when you deal with this issue of what your core musical self is, you have to identify your practice, your tradition, and all that baggage, because the person you choose to become is related to that world in which you inhabit. You are allowed to decide your path, but, as Antoine Beuger told me once: you cannot say "yes" to something without first saying "no" to something else; you have to determine the place you wish to come to, and then understand that in order to get there you first have to deny that place you are in now.

There can be no decisions that are correct or incorrect in life, only decisions that are consistent with your first principles. We tend to judge others according to our own axioms, but we cannot bind a man with chains that do not exist to him; for, he is bound to his own truth, and though he might be bound by birth, wealth, class, intelligence, education, or location, these are merely factors for him to determine his truth against, not the factors that determine truth itself.

The unique quality of the Second Viennese School lies in the fact that each composer came from a different world, a different tradition, and they wove those aspects into their interpretations of Schoenberg's method. For the master himself, it was a late romantic, expressionist world combined with a very overt Austro-Germanic classicism; for Berg it was a lyrical, hyper romantic lieder distilled into a very strict form that Schoenberg thought he lacked; for Webern, it was this same late romanticism, striped bare to essentials most likely informed by his studies of Heinrich Isaac and other early baroque german music, leaving tight polyphonic, and often canonic, forms of music.

CLOSING THOUGHTS

Judge what you will of the results, as with anything you are welcome to come to your own conclusions in the end, but each comes to their means of composition with an understanding of their tradition, their methods, and their goals. What makes a man is not his work in isolation, but rather what he does, filtered through what he wishes to do, and the means through which he does it; the work simply stands as a testament of his will. "Art," as we deem it, is the byproduct of a man who cannot do otherwise, we simply choose to praise it or throw it in the trash. One must always be consumed by not what others expect, but rather by what must be done, and often those ends might differ according to what is "good" or "bad;" yet, that should never be on the mind of the artist, for If he is truly successful, then he is truly successful to himself. The question of success in life is neither that of money or fame, but rather if what one does works in the end according to one's own first principles. Those who composed these melodic lines we have seen in this work, does it matter whether or not they were paid handsomely, or if they were even to be remembered? Not necessarily, because the purpose of the work itself is its use, that it serves its purpose, according to its own internal rules. A piece of music is always driven by its own internal logic, not by that of anything exterior that dares to judge it according to its own standards, and I hope that I might have been honest here, that I might have approached this music honestly, on its own terms.

I am not perfect, and my analysis is not all encompassing; yet, it also should not be, because to do that alone is to kill the music. I cannot analyze this music, I can only attempt to make sense of how beautiful it really is, because even now, even for one who has a strong knowledge of the system that gives it being, I cannot say I know anything of it. There is far too much more to know of it, of its origins, its original performance practice, of its place within the greater context of its time; yet, all of that ends up being nothing, a mystery lost to time. All I can do is wonder at what it might be, and enjoy it for what I know it is. The great romantic aspect of these things is that we can never know them for what they are, but for what we understand them to be.

There is a certain conundrum around classicism and neoclassicism as we start to understand what Hellenic statues were really meant to appear as, brightly painted with gaudy colors as opposed to the cool, refined white we envision. The question is, does this matter? For the sake of history, yes, it does; but, for aesthetic enjoyment? No. If we are so removed from the culture, then how can we shift our aesthetics to fit theirs? We should indeed attempt to engage with these things as what they might have been, but we still should also enjoy them for

what they are now, as we experience them, for that experience of the thing as it is now, not as it was, is what inspires us to understand our own aesthetic and artistic interests. The enjoyment of anything should never require anything exterior to it itself, for as long as it is well proportioned to its own internal logic at the most basic level, then it is good, and understanding that is the key for us to understand and work with our own forms and methods.

So I return to the personal question of why I wanted to write this. It is true that it was initially spurred on by a question my teacher, Frank La Rocca, asked me, but it is also a bit more than that. Everything I have written, words and music, has been for no other cause than furthering my own knowledge and experience, the effect it has on any other aspect of my life means little to me. In this case, I wanted to write this work for a very long time because the work meant to be a part of dealing with my own inadequacies as a musical thinker, which were sown the day I chose to question the academic musical establishment and quit studying music from the book, so to speak.

I dropped out of my academic musical studies for a few reasons, but the most overt was because I did not want to be trapped in teaching standard tonal theory after discovering the work of Harry Partch; however, it was not that I disliked tonality, but rather it was that I disliked what I thought was an excess of meaningless rules and theoretical constructs that were determined afterwards. In Partch I found the opposite of a grand theory, of a unifying system of somewhat arbitrary rules, but rather a call for investigation, investigation, investigation. He offered no commandments to follow, but rather detailed his own creative world as a means to inspire others.

Naturally, I despised these rules—and I still do—because they said nothing about what you can do, based on the natural qualities of the musical structure, but instead what you cannot do. So, for me, rules are codified aesthetics; yet, music cannot truly be those aesthetics, because aesthetics are not content, but rather surface. To attempt to say something with aesthetics merely proposes that the emperor wears no clothes.

The reason why I quit, and why I abstained from this musical world in general, was not because I hated tonality—I think it is obvious in my love for Monteverdi that it would be silly to assume that—but that I hated "tonal theory," as "tonal theory," in the manner in which we choose to teach it, is useless! It does not engage with music at the most essential, local terms that relate to its core creation, rather serves to fabricate some greater narrative about a cohesive

musical lineage that, as you look at it closer and closer, is rather not as cohesive as it first appears.

Never forget that which Lou Harrison thought paramount: music is part of life, it is not anything but life, because it is an affirmation and expression of life. What has prevented me from ending up as jaded as Partch, despite the lack of success, and a possibility of never really attaining it without access to the benefits of being associated with academic musical life, is because I took seriously the musical outlook and attitude of Harrison, and at some point in my life it became more important for me to come to terms with changing my attitude about what really mattered in a life in music. When I slammed virtuosity a few years ago, I was jaded about a musical industry that distanced people from the act of music making by means of the stage, what Partch deemed the "coat and tails" mentality of professional musicianship; yet, I did not mean virtuosity in the sense of being a musician in itself, which was a flaw in my wording—and perhaps my conception—at the time, as I was attempting to distill the Ruskinian maxims of work, craft, and beauty into a musical framework.

Musicianship is not merely one's skill and craft in performance, it is much more importantly discretion; what one chooses not to play, rather than what one attempts to. This is rather like life, is it not? Life is filled with paradoxes about the people we should be, the paths we should follow, and so on; yet, life to me, now more than ever, does not seem to be so. Antoine, of course, was correct: it is not what you choose to do in life, what you say "yes" to, but what you decide to abstain from, those things that you choose to deny. Truth follows practice, and practice emerges from truth. There can be no other way: one who acts according to one's own truth will be acting consistently according to their principles, and from that truth one better understands one's principles.

The core rules are followed in all great works, but too much in music is too idiosyncratic to really follow the bullshit peddled by Schenkerians, Neo-Riemanns, and other musicologists fascinated by grand fantasies. The essentials existing does not explain the eccentricities that still abound, and the recovery of Biber and Zelenka should have been the first sign that, even within the "Germanic" conception—that began in with Hans Leo Hassler and found its apotheosis in Bach—which formed the basis of all Anglo-American education, there was less homogeneity than first believed, and perhaps we should rethink our "rules" more as consequences of our systems, rather than as God-given commandments. Even Schoenberg, my first among equals, fails in the sense that he identifies music

around a world that is far too focused within its own myths, on its Germanicity, rather than on the core quality of the music itself when it is not tied to seemingly monolithic traditions.

Because, musical tradition and practice is not monolithic; it is always localized to the place that practices it, even if it be one village, parish, house, or person. Universal standards cannot exist, for these things change naturally over time, and we are merely objects in relation. Before the Gregorian reformation the chants were all quite different all over Europe, Africa, and the Middle East. Even in times where the Vatican held absolute power, politically and religiously, Ambrosian chant was still practiced in parishes in northern Italy. "Truth," as charlatans peddle it, is not as pure as it seems, because in order to make it so, one must choose to say no to something else, to omit from the record that which denies it.

The danger of "music theory" as it is is the danger of trying to create rules, standards, and measurements of quality where they really should not exist. The mark of quality is whether or not the result lives up to its conception, not that of others exterior to it.

I complained about "analysis" of masterworks often as someone determining a thesis before ever opening the score. I imagine some theses are written like this, where one determines their argument and then studies the music, which creates a sort of confirmation bias in the process. When I set out to work on this, as any other work, I had to always question myself: "how might X function?" I can support anything with anecdotes I am aware of, or, if I can identify them, structural truths of the system, but I must first find it in the music before I can move anywhere else. Nothing matters more than the truth of the thing in itself, all else comes after.

Of course, the problem with analysis is that the music we see on the page is much more banal than we expect it to be. You can analyze Webern and really only get the rows from it, so you have to weave some more conceptual aspects to it, because part of the rhetoric of analysis is this artistic rhetoric that we fabricate in the process, even if it is not what the composer really intended in the end. After all, in the act of analyzing music, and publishing said analysis, we naturally codify it as great; so, if we choose to ignore it, then it must not be worth that much. Part of the problem with our societal values, and perhaps with those in the past as well, is that we must identify a work of music as "good," purely because it is categorically "good," according to aesthetics, political engagement, or emotional content, etc.

Yet, this does not really present to others the point of analysis: understanding as to better enjoy it. The simplest answer, the raw data

itself, is the most essential: the composer chose x because y, and often that reasoning is much more simple than it seems. In attempting to explain some of these melodic lines I felt like that I was trying to make more of something that really is just a leap of a fifth; yet, when I listened to it in practice, understanding some of these rather inconsequential things often made the experience of listening more enjoyable, because I could understand at a greater capacity what I was hearing.

I cannot stand to listen to anyone discuss the music of Gesualdo because all they do is wheeze on and on about things that do not apply to the music itself. Exterior aspects exist, but the music is not totally freely composed, it is composed according to systems and structures intrinsic to modality, and then these qualities are heightened by the composition decisions he made; however, these are not unique to him then, they are identified with other composers around him and even in those that came before him, because they all approached the modal structure from this artistic and intellectual point of view, and used that, along with their skill, to create very powerful music.

The content of the music, that which makes it of interest, is not the surface experience, the anecdotes, the background. All of that is garbage. If we did not know Hildegard von Bingen was a woman, the music would be just as good. The rest is bullshit.

So what I am aiming at is that if you compose according to a musical structure's inherent qualities, then you are composing according to the rules without ever referencing the rules. Good music is beholden only to itself, and when it is understood, it betrays itself; for, riches are always laid bare from simple things, and often people are fooled to believe that what glitters might be gold.

I have been a bit interested in Lachenmann recently, and here I find this sentiment as well: an absolute consistency in conception, method, and result, only because the music is determined by a set of first principles that then shape the result. In order to work as an artist, you must be able to, within the structure of the system, create something expressive; and, within this system of twelve notes we are left with a rather small amount of sonic material. How then are we to make the best with what scraps we have?

The content of good music is not the apparent surface perfection, but what one can do within the clear constraints of the system. Slaves to rules are slaves to style, and slaves to style are slaves to surface. Composers are trapped by mistaking the surfaces of music, and aesthetic decisions, as the content of music, when the surface is rather the result of the conceptual framework; yet, the surface of the music

is not important. It does not matter if you are a conservative or a radical; it matters more that you are honest and forthright. You learn music not to create what you think is expected of you, but rather to express what matters to you. Whether or not you are successful is not anyone's concern but your own.

It is not really for me to tell you how to approach anything. I am certainly not perfect, nor a genius, nor successful. I am—and have always been—more likely to sabotage myself, to divert my attention to follies and useless matters, than to ever succeed in any enterprise I find myself attached to. I at some point in my life said "no" as to say "yes"—though as I grow older I wonder if the world I said "yes" to exists; yet, I was given an opportunity to decide my path in life, and I accept the consequences of it. I live not by the terms of others, but on my own terms, as one must always work on one's own terms while also understanding those of their time, so they can offer something in response to the problem of the insurmountable barrier between the two.

Part of being a fully functional human is being able to make your own decisions about what you believe, and who you want to be in your exceptionally short life. What comes of those decisions is your cross to bear; yet, whatever happens, you cannot look back in despair, but instead find ways to make something of it. Perhaps life can be, at times, full of despair; though, for me, it is not the valley that determines us, but rather what we do to deal with it. People far poorer, and far weaker, than us have been dealt hands that seem unplayable, so if we have decided to opt in, then we might as well attempt to make do with what we have been allotted. This is not to say to accept a status quo where anything else might be possible, but rather that there are, and always will be, things that you cannot change, only work around.

I write of this because composition, just as the lives we live, is about working within the parameters that have been set, the world, tradition, and practice that you have been born into, and finding something of value within them, though never can it be viewing those parameters as the music itself. It is what occurs within those parameters, and how they interact with one another, that determines the music. Music is more than a single note just as much as life is more than only you. It is you within something else, just as your music is within something else. We are not islands, but rather archipelagos that alter the currents of the sea between the shallows of one another. As anything, it is just as much about context as it is the notes. It is not whether or not the decisions we made are "correct," but rather whether or not they are the decisions we should make, and

whether or not the results of our actions are honest according to who we are and what we wish to be. Things happen, but whether or not we should do them is up for us to decide. When we compose, it is not according to rules etched in stone, but rather interacting with each point so that they all are in harmony with one another when the total line is understood. In the process one might find different answers to situations, and we then must use our discretion to come to the best answer for ourselves in the context of the overall musical experience, not according to what is technically sound and logical. It is not choosing to break rules if they do not fit, but rather to not think about these things in the context of exterior rules and taste, and more about the rules and logic of what we are working with.

The world of music is intrinsically linked to life, for it comes from something as simple as a tone, a syllable, a breath. Each time we choose to act, we are given a chance to act again, and again, and again, to create something. What you choose is your decision, and the world you wish to create can appear from that decision, but only if you possess the discretion, craftsmanship, and proper attitude to fully realize it.

The masters of the past came to this dilemma, and whether or not with great trepidation or with great ease, gave us the most sublime breezes of melodic writing. These things come from a life engrossed, obsessed, entangled with, engulfed within, a musical tradition so deep that they, when they decided to write, could not write anything that meant nothing, because everything within them was to be woven into the music, that what they desired to express was not totally a conscious decision, but more deeply rooted in who they were, what they believed, and in what ways they acted. Music is not simply a craft, it is an indication of your character, it expresses who you are—your personality, your values, your beliefs, and so on—without you ever needing to make any extra-musical comment. When you work with music, your musicality is directly tied to you, and musicianship is never in the notes themselves, but always within how you choose to take on the burden of expressing them. A pianist never needs to perform complex, dense Liszt etudes to be a great musician, he could spend his life with the interior, miniature world of Mompou and find a world just as complex and emotionally satisfying. As I wrote in my study of Partch, *there is more water in a glass than in all of the ocean*.

If we were to separate the sheep from the goats, so to speak, then the essential trait of every good musician, and, in extension, composer, is one who makes conscious, informed decisions according to his own vision; whether or not he is successful is not a question of

technique, but rather intention and attitude. Craft serves merely to facilitate; for, the essence of music for a musician such as this has been totally absorbed, and it serves to highlight the kind of person they are. As Paul said, there is but one law, *For the entire law is fulfilled in keeping this one command: "Love your neighbor as yourself."*[7] To keep this law is not to memorize rules and act like a copy of some mystical saint, but to absorb the message of Christ into oneself and allow it to highlight the person you are in the process.

The entire law in music is fulfilled in understanding the forms, purposes, and reasons for which one's musical system exists. Nothing comes from nothing. All rules are extrapolations of first principles. Though there might be thousands of rules, the only one that matters is the core axiom, for if you follow that, then you follow all of the rules that flow from it. What is important is not the rules, the commandments, the arcane aspects of it, but rather the core things that allow for it to exist in the first place, those first principles. In the Gospel of John, he retroactively outlines this and allies himself with Paul's statement: "for God so loved the world..." is not a statement about God himself, but more a statement about what the act of Christ is; in fulfilling the law of love, then one affirms the first act of love, and one thus affirms the prime axiom of the faith itself.

Perhaps you might find that what I wrote is nothing of value, but then another might find that what I wrote allowed for them to investigate their musical world further than they would otherwise. If both happen, I would be content, for I imagine both the result of Partch's work itself. Nothing can be totally accepted, the purpose of our work is to inspire, and that is where I hope this work might matter.

What can really be said to be of value anyway? The only reason we value something is because we choose to ascribe it value beyond what it objectively is, because it provides something for us beyond what it is intrinsically, whether that be emotional, psychological, historical, etc. I cannot even say that the only person who receives anything from this is me, because what do I really get out of writing anything? It is not as if I was required to write it for the sake of credentials or to fill a portfolio.

When I wrote my first text, the *Prolegomena*, it began as nothing but an explanation of things I was studying and attempting to apply to my musical studies. I only appreciated the importance of the actual content of my studies when my teacher commented that I essentially did the work of a dissertation in the process by conducting individual, original research on a topic; yet, I never viewed it in such a

7 Galatians 5:14

way, as if I were an intellectual who was estranged from academia and wanted to "prove myself," because at the end I concluded with something non-academic in calling for a more Ruskinian view of music as an expression of the wonder of nature, not simply as an intellectual pursuit or entertainment, expressing that I did not necessarily think that my way was absolute, but rather another way of engaging with what exists in nature.

I think Ruskin's maxims are just as important now, if not more. The purpose of life, the pursuit of it, is in living life. In observation. In investigation. In experimentation. Everything else is useless, and perhaps even detrimental, to life. When I first heard the work of James Tenney about a decade ago, specifically *Diapason* and *Critical Band*, it was an earth-shattering revelation. These two works made me extremely grateful that I was born, if only just for that one moment. The power of the work is not in any aesthetic or formal factors as we expect of music, but rather the obsession with providing us with the opportunity to experience pure sound, to live life to the furthest edges our perception allows. The love of such harmony is the love of the wealth of life, that we are given an opportunity to exist as to experience. The love of harmony is the love of melody and the love of melody is the love of line and the love of line is the love of life.

All I wanted to do then, and still now, is investigate and attempt to convey the results to others, and I would rather everyone receives from this something much more than I do in the end.

So, I have written quite a bit about what I said "no" to; yet, I never have honestly expressed what "yes" really is in words. My life has been so deeply affected by the work of others who provided me with outlets for questioning, investigating, knowing, and enjoying. For me, that is life itself. Not pleasure, not wealth, not fame, not success, but knowing and enjoying. On another's terms I spoiled my momentum in life and threw away my future; yet, I cannot say that I regret anything, because what I said "yes" to has so greatly enriched my life I could not imagine ever doing anything else, I simply would lack the motivation to endeavor towards anything else!

So that "yes?" It is my "know thyself," my "there is no wealth but life" in that phrase, *non musica sed vita*—not music but life. It is the Partchian position of searching for melody and harmony in those things we did not otherwise see anything of importance at all. Once you listen, you find that there is more music in life than there is in music as we generally engage with it, and what I said "yes" to is coming to understand and know it as to enjoy it better. As all of my work, I wrote this for myself, for the sake of investigation and

understanding, of attempting to put my thoughts and meditations into words as to convey and express that joy; yet, I also wrote it for you, because what I chose to say "yes" to also implies that what is more important for me is not this in itself, whether it be the writings, music, or anything else I strive for in my life, but what it might mean for you.

Just as in line, the mark of value someone has is not determined by it itself, but in its relationship to everything else. Discretion in music is knowing when, where, and with what something will have the most value, not simply for the sake of itself, but for everything that came before and will come after. Discretion in life seems to me not so different.