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Tonal Hues in Debussy's “Etude pour les Quartes”

According to

***C. Riemann's Tonnetz in a Quartal Harmonic
System***

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April 14, 2008

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Abstract

This paper proposes a short harmonic analysis of Debussy's *Étude pour les Quartes* from the point of view of Riemann's *Tonnetz*.

Riemann's system can exhaustively describe a triadic music and can be useful for placing "tonal" regions in a up-down (*bright-dark*) scale as well as in showing symmetries and similarities.

However, the piece analyzed here constantly refuses any triadic interpretation and has a rather unique position not only in Debussy's work but is also radically different from Alexander Scriabin's late-style harmonic system even though it proceeds with fourths as well.

An attempt to create a chart similar to Riemann's but based on fourths and extracting the scales from the tonal regions in the piece will be the main topic.

Seeing the usage of those regions throughout the piece will shed a light on how Debussy conceived the piece. The *Étude* is organized as a succession of loosely related sections, each with its rather unique "atmosphere" and defies traditional analysis in terms of "exposition", "first theme", "second theme", "bridge" and so on.

It is as if Debussy have used the sound of the perfect-fourth interval as a unifying device throughout the piece and created sections with clearly defined "tonal hues" following a setup which goes up and down around it, often using foreign notes to enliven the sound-space and "painted" the music with these.

Chapter 1

Tonnetz in a Non-Triadic System

1.1 Riemann's Original *Tonnetz* and Attempts to Adapt it for a Non-Triadic Music



Figure 1.1: C. Riemann's original *Tonnetz* starting from C

This original mapping of the pitches is clearly inadequate for this piece. To be able to map the \acute{E} the chart may be modified in several ways. But, as it will be seen, some of the mappings will lead to dead-ends.

Possible mappings are:

1. Regions above and below C (the usual reference pitch) starting at steps of (perfect) fourths and continuing by fifths as in the original map. See figure:1.2.

2. Regions starting in steps of major thirds, as in the original, but continuing by fourths. See figure:1.3.

The last possibility is to make the layers by (major) thirds and moving by fourths. See figure:1.4.

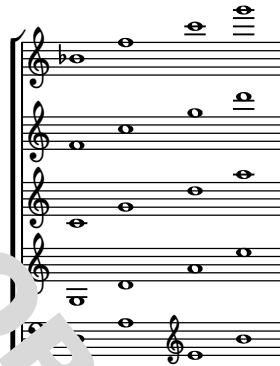


Figure 1.2: Modified *Tonnetz* layers by fourths and moving by fifths

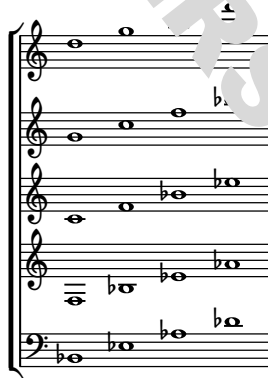


Figure 1.3: Modified *Tonnetz* layers by fifths and moving by fourths

It can be seen from the above examples that only the last mapping¹ can be useful for the analysis of this piece.

¹Figure: 1.4

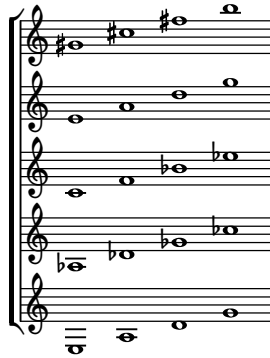


Figure 1.4: Modified *Tonnetz* layers by thirds and moving by fourths

1.2 Basic *Tonnetz* by Fourths to be Used in the Analysis

This last *Tonnetz* (layers by thirds and moving by fourths) shows only three useful “regions”:

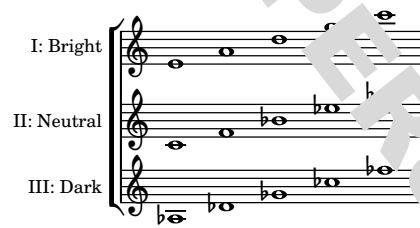


Figure 1.5: Basic *Tonnetz* to be used in the analysis

Interestingly this reference to **C** pitch-class as a center-pitch or “neutral” row is not arbitrary here. Pitch-class **C** is used throughout the piece, not as a *tonic* in the usual sense of it but rather as what can be described as a “reference point”. It occurs at the most important sectional points and it conclude the piece as well.

Also worth noting that the rows shows the *pentatonic* scales which will be used in the piece.

Chapter 2

Mapping the Tonal Regions in the Piece

2.1 Organization of the Composition

The piece shows sharply delimited sections. It seems almost to defy traditional thematic, development based analysis.

Except for an extending large scale *crescendo* on an *ostinato* bass (starting page 3) and the *Stretto* bars, one can only “find themes and their variations” if one proceeds *ad absurdum* by calling “theme” only a few notes long musical fragments.

Then the question of how that seemingly loosely organized piece can show such an unity arise.

I think the pieces structural integrity is from its harmonic language’s integrity. This language has tightly defined boundaries and it is used without any breaking exception throughout the whole piece. Through that unifying but also limiting harmonic vocabulary Debussy managed to create a piece of incredible diversity and richness.

That “variety inside the unity”, probably the most sought-after quality in a piece of music, is created by assigning thematic figures to “tonal color” regions and keyboard range regions as they will be shown below. Each “tonal color” region, as shown in the specially made “quartal” *Tonnetz* has its own pentatonic scale.

Also from the “quartal” *Tonnetz*, it is evident that there is a very limited range of available transpositions. So Debussy used not only static “color” assignments for sections and themes but managed to get interesting stacks of layers in a polymodal range.

2.1 Beginning

The first six bars already show a very interesting interplay of “tonal regions”.



Figure 2.1: Introductory bars already displaying subtle interplay of tonal “colors”

The piece starts at the “I: Bright” region of the “quartal” *Tonnetz*.



Figure 2.2: Region “bright” of the *Tonnetz* used in the first two bars

Then the “color” is already shifted towards the middle-zone.

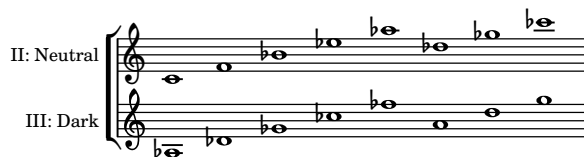


Figure 2.3: Regions II and III of the *Tonnetz* extended to cover the 3rd. and 4th. bars

Apart from the charming A-Dsharp-Fsharp-B chromatic passing-tone in a style similar to a *échappée* note in traditional harmony, a very interesting

play is between D flat and D natural at bar 3. This “game” extends to the “cadential” figures of bars 5 and 6 as Csharp and Dflat.

Bars 3 and 4 are harmonically quite complex. They seem to be indecisive and floating around the following scales:



Figure 2.4: Scales in the bars 3 and 4

To deduct the basic scale from the collected notes shown above we need to look at the time factor. How extended in time is any of those scales sound?

There is a tie between them to following pentatonic ones:



Figure 2.5: Predominant scale at bars 3 and 4

Now the most intriguing part of this opening measures: the cadential figures at bars 5 and 6:



Figure 2.6: Cadential figures at the end of the opening bars

First the central role of the pitch C is to be noted here. This pivotal role will be further stressed in many places in the composition.

After the initial “establishment” of C as “pivot-note” (this seems rather inappropriately than “tonic”) at the end of the introduction part, several structural divisions will be articulated “around C” and C again will be the “pivot-note” through the *coda*.

Below are some “cuts” displaying the strategical importance of C through the whole piece



Figure 2.7: The trill on C is of structural importance here. It connects important sectional parts.



Figure 2.8: The whole “III. Dark” region of the *Tonnes* played as a melody and accompaniment over a pedal tone of C (natural)



Figure 2.9: C as pivotal tone from the “II. Neutral” region used as a pedal-tone for a melody and accompaniment from the “III. Dark” zone

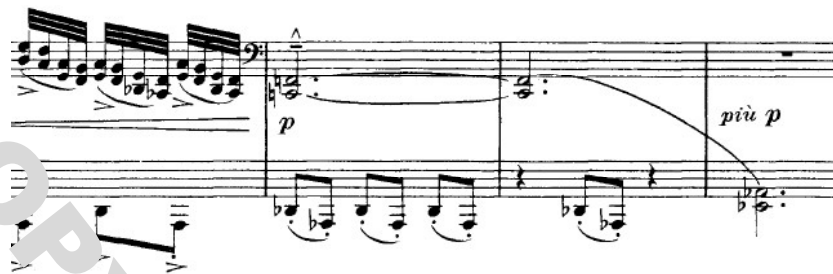


Figure 2.10: At the end of the ostinato crescendo, the central C-F chord with C in the bass will set here the “tone” for the remaining *coda*

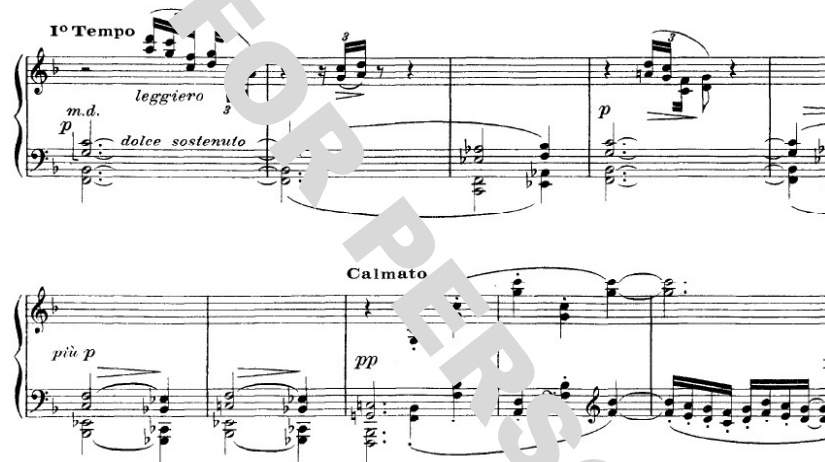


Figure 2.11: The C is from here more often heard as a super-pedal tone, its effect on the bass will be saved for the end.

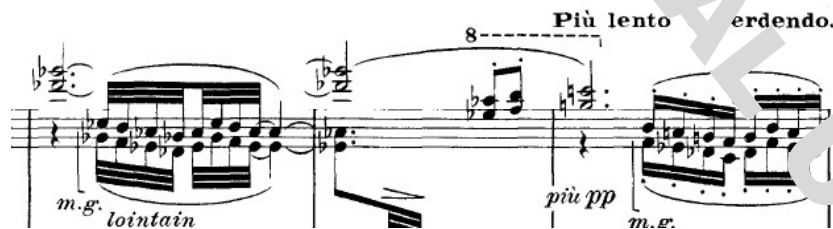


Figure 2.12: Still “pivot-C” at the top.

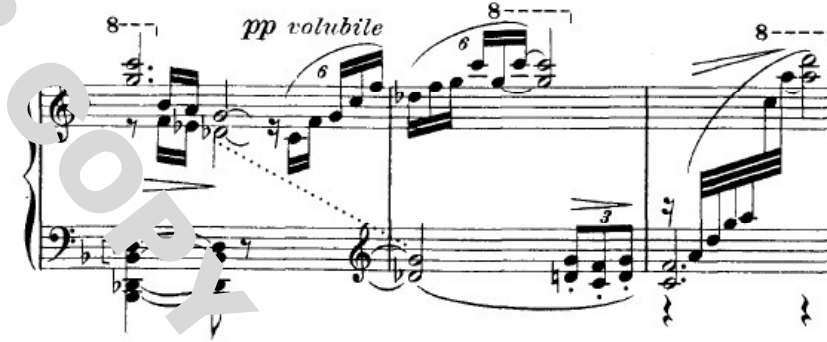


Figure 2.13: The C on top does not lead to the next D. Rather the D flat on the bottom acts like a leading tone down to C



Figure 2.14: The scale around which this part is articulated seems to be C-D-F-G-A. The E flat this time sounds like a leading tone to F

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