

# Fundamental Line(s)

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The fundamental structure of Schenker's theory is a cadence — both melodic/contrapuntal and harmonic. Schenker himself notes that “in order to gain insight into cadences in free composition it is important to recognize that there the closure is no longer based on the horizontal line alone but rather (and to a larger degree), on the harmony of the vertical [dimension], or, more precisely, on the succession from scale degree V to I”.<sup>1</sup> The bass arpeggiation, in other words, is not merely a contrapuntal line: it denotes harmonic degrees, full chords, symbolized by the Roman numerals. The fundamental structure itself, therefore, cannot be viewed merely a two-part counterpoint: it also is shorthand for a full harmony, subjected to the usual rules of voice leading. A fully spelled out fundamental structure from  $\hat{3}$  may look like the one in figure 1. This presentation is that of the *clausula formalis*, the “formal cadence” of traditional counterpoint theory. Each of the four parts has its name: the bass arpeggiation is the *clausula bassizans*, the descending fundamental line is the *clausula tenorizans*; the additional lines, implied but not formally present in the two-part fundamental structure, are the *clausulae altizans* and *cantizans*.<sup>2</sup> These lines *must* be present, in one form or another, in any fundamental structure, because they are inherent in the harmonic degrees I–V–I. Schenker himself hints at this fact when he writes that “in  $\hat{2}$  both leading tones in the upper and inner voices are united, and the bass brings in the root of the V. In this way alone is the complete triad achieved, as required by the arrangement for closing in three-part strict counterpoint”.<sup>3</sup>

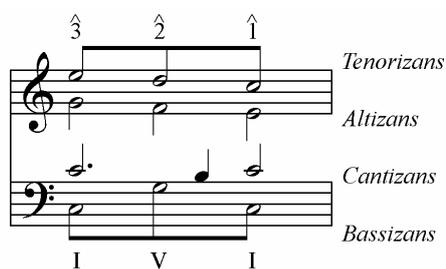


Figure 1

One might argue that Schenker himself objects to the presentation of the fundamental structure as a cadence, when he discusses “the difference between the forms of the fundamental structure and cadences of conventional harmony”.<sup>4</sup> His criticism, however, is directed not so much against the idea of the cadence than against the “conventional theory of harmony” that reduces it to a mere succession of harmonies. The subsequent discussion of this point in § 28 of *Free Composition* stresses the importance of the fundamental line, which “knows only the descending direction” and “is the source of all the voice-leading transformations, a role that the upper voice in the cadences of

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<sup>1</sup> *Counterpoint*, translated by J. Rothgeb and J. Thym, New York, Schirmer, 1987, vol. I, p. 105.

<sup>2</sup> For the terms *bassizans*, *tenorizans*, *altizans* and *cantizans*, see Bernard MEIER, *Die Tonarten der klassischen Vokal-polyphonie*, Utrecht, 1974, p. 77 ss.; *The Modes of Classical Polyphony*, New York, Broude Brothers, 1988, p. 89 ss. As can be seen in figure 1, these terms do not specify positions in the polyphonic fabric, but characteristic melodic motions: the tenorizans line is here shown in the treble, the cantizans one in the tenor.

<sup>3</sup> *Free Composition*, translated by J. Oster, New York and London, Longman, 1979, p. 16, § 23. The contrapuntally spelled fundamental structure minimally counts three voices; but a correct voice leading usually requires four voices if the fundamental structure also counts three harmonic degrees.

<sup>4</sup> *Free Composition*, p. 17, § 28.

customary harmonic theory never plays”. And the criticism leads Schenker to formally mention that the fundamental structure consists in more than two voices: “Finally, in the cadences of harmonic theory the voices are led mechanically, according to the rule that common tones are to be retained. Since this rule is no longer valid even in thoroughbass, how much less must it apply to a fundamental structure where *the inner voices* are subordinate to the outer voices, that is, to the fundamental line and the bass arpeggiation”.<sup>5</sup> My paper will suggest reasons why it is the tenorizans line that Schenker chooses as the fundamental line, and in what sense the inner voices, cantizans and altizans, are “subordinate” to it. My claim will be that the relation of the subordinate lines to the fundamental one is of the order of the unfolding. I will further discuss this on the basis of two examples, one each for the altizans and for the cantizans lines, in which the inner voices evidence a level of insubordination that may lead (and that actually led) to some confusion in the analysis.

### ***The tenorizans line as fundamental line***

William Pastille writes that “the *Ursatz* is something of an enigma. In order to feel comfortable working with it, we academic Schenkerians have done our best to demystify it. [...] But when one reads *Free Composition*, one cannot escape the sense of mystery that surrounds the concept [...]”<sup>6</sup>. One of the most puzzling aspects of the *Ursatz* is Schenker’s late decision (not earlier than around 1925, the date of the first volume of *Das Meisterwerk in der Musik*) that the fundamental line should be descending. In view of the contrapuntal complex described in figure 1 above, however, this appears the logical decision, among others for the following reasons:<sup>7</sup>

- The altizans line does not lead to the tonic ( $\hat{1}$ ) and therefore does not convey the idea of tonal closure.
- The cantizans line (in the tenor of figure 1), in this particular neighbor-note configuration at least, merely returns to its starting point and therefore fails to convey the idea of tonal movement and of tonal space.
- The tenorizans line expresses both tonal closure by its ending on the tonic and melodic movement through the passing note; so doing, it opens the path, as Schenker himself says, to further harmonic and melodic prolongations.
- The tenorizans line, in addition, is the least subject to variation from one composition to another. It is the most likely to be found more or less conspicuously present, in any composition, in the form illustrated in figure 1. If Schenker wanted the fundamental structure to form an “archetype”, as William Pastille terms it, if he wanted it to offer the most compact and the most general description of a variety of situations, then the choice of the tenorizans line was the most reasonable one.<sup>8</sup>

Such an explanation, however, fails to justify the organic nature of the fundamental line and to explain in what sense it “is the source of all the voice-leading transformations”. In this respect, it is interesting to note that the three upper voices of figure 1 could be unfolded to form one single melodic line, as in figure 2. This figure suggests several interesting conclusions, further discussed in the following sections of this paper:

- The cantizans line, when it takes the neighboring shape indicated here, usually is integrated into the fundamental line as an unfolding. Such a reading confirms the hypothesis that the fundamental structure is more than a two-part structure: Schenker eliminates the unfolded  $\hat{8}-\hat{7}-\hat{8}$  by relegating it to an inner voice.

<sup>5</sup> *Ibid.*, my italics. Schenker at times referred to the *Ursatz* as an *Aussatz*, “a set of outer voices”, which of course implies inner voices. See “Fortsetzung der Urlinie-Betrachtungen”, *Das Meisterwerk in der Musik* I (1925), p. 188.

<sup>6</sup> William PASTILLE, “The development of the *Ursatz* in Schenker’s published works”, *Trends in Schenkerian Research*, A. Cadwallader ed., New York, Schirmer, 1990, p. 71.

<sup>7</sup> I develop here points already made in my paper « La direction de la ligne fondamentale schenkérienne », *Revue belge de musicologie* LII (1998), p. 311-320.

<sup>8</sup> The reason why the line must be descending is inherent in the diatonic system and in the structure of the triad, as further discussed below in the section devoted to the cantizans line: see footnote 13.

— Any fundamental line from  $\hat{5}$  somehow seems a concatenation of an altizans and a tenorizans lines, which is another way to state that a line from  $\hat{5}$  may be articulated on  $\hat{3}$ , as Schenker noted<sup>9</sup>. In a sense, the  $\hat{3}$  could be considered the “tenorizans note”, the  $\hat{5}$  the “altizans note”. This may cause some uncertainty in the analysis, as it may be difficult to determine the true head note and to ascertain whether the  $\hat{5}$ – $\hat{3}$  span belongs to the fundamental line itself, or links by unfolding to a line from  $\hat{3}$ .



Figure 2

In most cases, such situations are easily untangled and the correct analysis is straightforward. In the examples discussed below, however, the intertwining of the cadential lines is such that it becomes difficult to say which line is the directing one, and to decide which analysis is the “correct” one.

### The altizans line

If a line from  $\hat{5}$  can be considered a concatenation of an altizans and a tenorizans lines, the question arises whether the true head note is  $\hat{5}$  or  $\hat{3}$ . The first movement of Mozart’s Sonata in C major, KV 545, presents an interesting case in point. The first four measures perform an initial arpeggiation from  $\hat{1}$  to  $\hat{3}$  in which  $\hat{3}$  is reached through an *Übergreifzug* from  $\hat{5}$ , the initial  $\hat{1}$  being prolonged by a cantizans line; the fundamental line is interrupted on  $\hat{2}$  in measure 12. This all reduces to a complex intertwining of cadential lines, of which the tenorizans one,  $\hat{3}$ – $\hat{2}$ , may be the least conspicuous, as shown in figure 3. There is no apparent reason, in such a case, to decide that  $\hat{3}$ , rather than  $\hat{5}$ , is the head note.

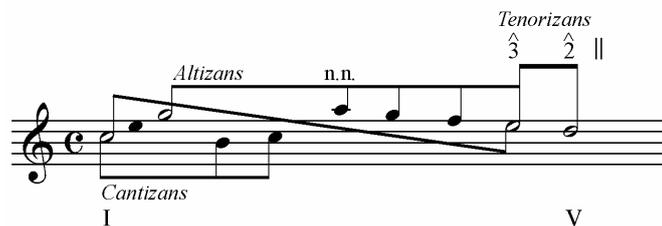


Figure 3

Schenker, who chooses for the line from  $\hat{3}$ , provides a probable explanation in figure 124.5a of *Free Composition*, which may be redrawn as my figure 4 below. He writes: “A third-arpeggiation is formed by the boundary tones of the diminution in measures 1–4. The high  $a^2$  in measure 3 has been prepared by the  $g^2$  in measure 1. The  $a^2$  in measure 5 begins the descending motion to  $a^2$  and ultimately evokes also the  $g^2$  at the end of the example”<sup>10</sup>. The descending motion from  $a^2$  is but a line to an inner voice (which turns out to be the fundamental line), linking the altizans line to the head note of the tenorizans one. The return of  $g^2$  at the end of the first theme (measures 11–12) indicates that the altizans line did not really leave  $\hat{5}$ .

<sup>9</sup> This point is discussed in §§ 36 and 38 (among others) of *Free Composition*.

<sup>10</sup> *Free Composition*, op. cit., vol. I, p. 104. The somewhat unusual notation of the registers in this quotation will be used throughout the present paper:  $a^2$ , which is a transliteration of the German (and British)  $a''$  (*zweigestrichenes a*) corresponds to the American A4.



unfolding, as we saw in figure 2. A true cantizans *Zug* is not unconceivable, however; it would have to raise and fill the space from  $\hat{5}$  (or possibly  $\hat{3}$ ) to  $\hat{1}$ . Such a line is rare, if only because it involves an inherent false relation<sup>12</sup>, a tritone, resulting from two major thirds in conjunct succession (a situation already mentioned in some of the earliest Renaissance counterpoint treatises), as illustrated in figure 6, which also evidences that the ascending cantizans line necessarily requires an additional degree (II or IV) supporting the  $\hat{6}$ <sup>13</sup>. The satisfactory realization of such a line certainly requires a lot of elaboration.

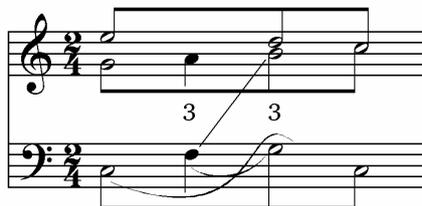


Figure 6

J. S. Bach's Little Prelude in C major, BWV 924, is a case in point, in which Schenker himself was mistaken by the close intertwining of the cantizans and tenorizans lines. Schenker's graph for that Prelude that comes closest to a true fundamental structure is shown in figure 7.<sup>14</sup> The Prelude counts 18 measures, the structural dominant being reached as early as m. 7. The cantizans line therefore fails to describe more than half the work; it fails also to mark the  $V^7$  of m. 9-10 as the climax of the work. There is a general agreement today to consider that the fundamental line for this Prelude is descending from  $\hat{3}$ , with a first order neighbor note  $\hat{4}$  in m. 9-10, resolving on the dominant through a  $\hat{6}_4$  and a chromatic passing  $e$ ,<sup>15</sup>. A graph of this version of the fundamental structure might take the form shown in figure 8, which in turn fails to convey the growing tension of m. 1-8.

In order to give a complete account of the piece, the graphs of figure 7 and 8 should be united as in figure 9, which stresses both the tenorizans and the cantizans lines and shows how closely intertwined they are, indicating also how Bach managed to solve the problem of an ascending cantizans line. The parallelism between the bass and the inner part, with the tonicisation of IV, includes the conjunct major thirds in a sequence that hides the false relation. The register transfers, from  $\hat{5}$  to  $\hat{6}$  in the inner part and from  $\hat{2}$  to  $\hat{2}$  in the fundamental line, concur with the unfoldings  $\sharp b^1-f^1$  in m. 7-9 and  $d^1-b^1$  in m. 16-17 to entangle the two lines. The cantizans line appears as an *Untergreifzug* from  $\hat{3}$  to  $\hat{1}$ . This is a complex version of the unfolding illustrated in figure 2. Each note of the ascending line is prepared by an upper neighbor note (forming a series of *Übergreifzüge*), allowing for the tonicisation of  $F$  by which Bach veils the false relation  $f^1-\sharp b^1$ .

<sup>12</sup> This point was made by William Drabkin during the oral presentation of my paper "La direction de la ligne fondamentale schenkerienne", quoted in note 7, for the Society for Music Analysis in London on 21 March 1998.

<sup>13</sup> Degree  $\hat{6}$  is the only note of the diatonic scale that belongs neither to the I nor to the V degree. Both the formal cadence of figure 1 and the unfolded line of figure 2 avoid it. That is to say that, for reasons inherent in the structure of the diatonic scale and of triads, a line passing through  $\hat{6}$  is incompatible with the simple case illustrated in figure 1. If the fundamental line is to represent the most general case, it must reach  $\hat{1}$  without passing through  $\hat{6}$  — i.e. it must reach  $\hat{1}$  through a descending motion.

<sup>14</sup> Heinrich SCHENKER, "J. S. Bach: Zwölf kleine Präludien Nr. 1", *Der Tonwille* IV (1923), p. 3-6. While Schenker's background graph shown here as figure 7 describes the *cantizans* line as  $\hat{5}$ -8, his annexed *Urlinie-Tafel* shows it as  $(\hat{3}-\hat{4})-\hat{5}-\hat{6}-\hat{7}-\hat{8}$ .

<sup>15</sup> See for instance Allen FORTE and Steven E. GILBERT, *Introduction to Schenkerian Analysis*, New York, London, Norton, 1982, p. 199, and *Instructor's Manual For Introduction to Schenkerian Analysis*, New York, London, Norton, 1982, p. 93



Figure 7

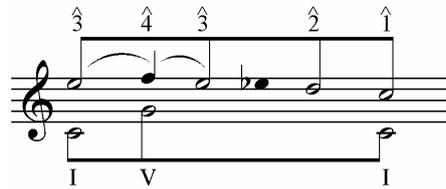


Figure 8

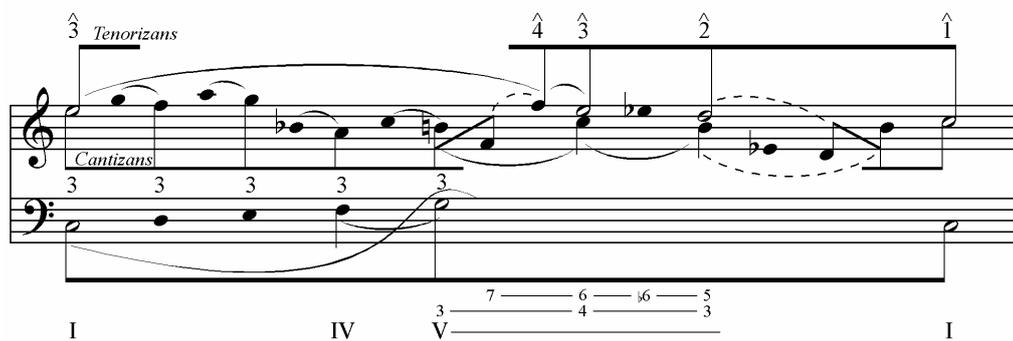


Figure 9

Another of J. S. Bach's Little Preludes in C major, BWV 939, which Schenker analyzes in *Der Tonwille* immediately after BWV 924<sup>16</sup>, shows in the first four measures a situation that compares almost exactly to the one discussed above. Schenker's graph for these measures is paraphrased in figure 10 below. He comments it as follows: "In mm. 1-4, a neighboring motion of the third of the tonic harmony is effected. As is usually the case, this neighboring motion accompanies the composing-out of the fourth-space. (Because of the lower register of the bass, the third appears first as e1 in m. 1.) While the neighboring motion merely embellishes the 3 of the fundamental line, the fourth-line expresses the basic idea, which, in addition, presents strict motivic repetitions that conform to the intervallic succession of the fourth-line."<sup>17</sup> Contrarily to what he had done for BWV 924, Schenker correctly establishes here the respective roles of the ascending cantizans line ("the basic idea") and "mere" embellishment of the tenorizans head note by the neighbor note of first order.<sup>18</sup>

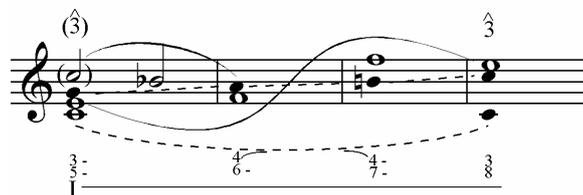


Figure 10

<sup>16</sup> "J. S. Bach: Zwölf kleine Präludien Nr. 2", *Der Tonwille* IV (1923), p. 7.

<sup>17</sup> Translation by Norman Douglas ANDERSON, *The Development of the Concept of 'Line' in the Writings of Heinrich Schenker*, Thesis for the Master degree of Music, University of Texas at Austin, Appendix 4, <http://bama.ua.edu/~danderso/thesis/th-ap4.htm> (last consulted on 30 April 2006).

<sup>18</sup> It will be remembered that Schenker had not yet decided, in 1923, that the fundamental line ought to be descending — that is that, in such cases of competing contrapuntal lines, it is the tenorizans one that must be recognized as the structural line.

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In a majority of cases, the implicit inner lines of the fundamental structure do not deserve particular consideration at the deep middleground level. The fundamental line and the arpeggiation of the bass are sufficient to reveal the structure of the work. The cases illustrated above, however, arbitrarily chosen examples of situations that would deserve further study, shew that accounting for the inner lines may at time contribute to a more detailed and more exact analysis. A polyphonic conception of the fundamental structure also helps demystifying the fundamental line, which needs not be thought of “as a ‘theoretical construct’, or as a ‘hypothetical substructure’, or as an ‘axiom’”<sup>19</sup>, but merely as a compact representation accounting for a contrapuntal complex of lines, much as the bass arpeggiation stands for a series of harmonic degrees.

<sup>19</sup> William PASTILLE, *op. cit.*, p. 71.