1974

The Evolution of Whole-Tone Sound in Liszt's Original Piano Works.

Harold Adams Thompson
Louisiana State University and Agricultural & Mechanical College

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The Louisiana State University and Agricultural
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THE EVOLUTION OF WHOLE-TONE SOUND
IN LISZT'S ORIGINAL
PIANO WORKS

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The School of Music

by
Harold Adams Thompson
B.S.A., University of Georgia, 1947
B.F.A., University of Georgia, 1949
M. Mus., University of Michigan, 1952
December, 1974
To

Margaret
Scores of friends have assisted me in various ways in the preparation of this study. I shall enumerate only a few of them. A special note of gratitude goes to Dr. Kenneth B. Klaus, Chairman of my Supervisory Committee. Without his constant, unfailing support, this study would have never been written at all. If I had not attended his classes, it would never have emerged in its present form. But this is not to hold him altogether responsible for the ideas appearing in the study. Besides projecting penetrating insights of his own, he possesses a unique ability to inspire independent thinking; therefore, while he may or may not agree with some of the ideas brought forth in this study, they would not have emerged if I had never known him.

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ABSTRACT

This study projects the evolution of Liszt's whole-tone idea as a continuous experience by blending analysis with a musicological approach. With one exception, all of the illustrative material appears in Liszt's original piano works. The study clarifies Liszt's creative approach to the extent that is possible within the limitations imposed by the definition of a single idea. The whole-tone idea serves as an appropriate vehicle for comparing the outer limits of Liszt's compositional experience because the majority of the whole-tone passages appear during two experimental periods: 1) 1846-1851 and 2) 1877-1885.

The study first focuses upon chains of triads that progress by thirds in the works of Beethoven, Schubert, and Liszt, the goal being to show Liszt adapting a tradition to create something new and different—rotating mediants. This is George Rochberg's term for equal-third (either major or minor) progressions. The root-position major triad, more often than not, articulates Liszt's rotating mediants. The rotating-mediant idea looks both to the past and to the future. On the one hand, it links Liszt with his immediate predecessors; on the other, it links with his whole-tone experiment. This happens in the Dante Sonata (1849). Several evolutionary steps lead up to this linkage, the first occurring in 1838. The whole-tone idea becomes a coequal partner with the rotating-mediant idea in the Dante Sonata, each of the ideas being an integral part of the complete field of equidistant associations. Articulated by major triads, the progression fans out from the center of
the tonic octave (a-flat) in a rising sequence in which the segments are four measures in length. Upon reaching the tonic, it descends by whole-tones. The following abstract of the progression represents twenty-six measures, each pitch representing the root of a major triad:

![Diagram of musical notes]

Tritone centricity, as this example illustrates, underlies the construction of basic shapes in the Dante Sonata. From the major triad, Liszt moves to equidistant chordal formations to articulate whole-tone progressions. Consecutive chords no longer appear in whole-tone passages following 1862.

An interpolative chapter defines Metabolons, a built-in principle of transformation based upon the variable tetrachord. The following example illustrates how it transforms the basic set in Csárdás obstiné (1884):

![Diagram of musical notes]

![Diagram of musical notes]
Whole-tone activity hovers around the same set of pitches in most of the examples in the last phase of the evolution, namely: b, c, d, e, f, and a. Curiously, g is sometimes absent. These pitches, through the use of Metabolons, assume many shapes. The following example shows the basic set in Unstern (c. 1884):

\[
\begin{array}{cccccccc}
\text{f} & \text{e} & \text{d} & \text{c} & \text{b} & \text{c} & \text{d} & \text{e} \\
\end{array}
\]

By continuing the mirroring through the g-sharp octave, a complete set emerges in both the upper and lower parts, each being at once an inversion as well as a retrograde of the other. This symmetrical construction permeates Unstern's structure. Rotating mediant reduce to a basic cell—the third—in Liszt's late works. The third expands in Unstern and thereby creates whole-tone sound. A similar expansion occurs in Bagatelle sans tonalité (1885). The basic chord in Bagatelle is the selfsame chord as the principal chord in the Dante Sonata, the startling difference being that it constitutes the basic material on which Liszt builds the entire piece. It governs the course of events in the Dante Sonata. Among other things, it articulates sequences and guides rotating mediant. In the late pieces, Liszt confines the sequence to the basic cell; the segments progress by semitones and fill it in chromatically. The cumulative evidence in this study demonstrates that Liszt's last style, as strikingly different from his early style as it may appear, results not from a radical change in the sense that he pursues totally different directions, but rather from a gradual process of abstraction and reduction.
CHAPTER I

INTRODUCTION

Liszt's Creative Approach

Liszt in the Mainstream

Liszt died on July 31, 1886, two months before his seventy-fifth birthday, without ever receiving recognition that is commensurable with his significance as a thoughtful, creative composer. Instead, he remained at the center of a raging controversy that dates from the time of his decision to discontinue his spectacular career as a pianist in order to devote his time to composing. Although this was a long and, at times, tormenting struggle for Liszt in a personal sense, the forty-year span, in a historical sense, fits into the mainstream as a significant period in the evolution of a new music that finally culminated in the twentieth century.

The methods that evolved to accommodate the structural requirements of the new music gradually replaced the diatonic process. Thus, the evolution brought about first the disintegration of diatonic functionality and finally, the end of tonal organization altogether. Boulez describes the final phase of the evolution as a "period of destructive experiments that abolished the tonal world and regular metric."\(^1\) Oriented to the beginning phase, this study, a documented presentation of

the evolution of whole-tone sound in Liszt's original piano works, unfolds an important experiment that contributed to the dissolution of the diatonic process.

History of This Study

The view of the whole-tone experiment that this study projects emerged out of a thoroughgoing search for progressive procedures in all of Liszt's original piano works known to exist, including, in addition to all of the readily available published works, many out-of-print pieces and manuscripts of unpublished works. The selection of whole-tone sound as the main topic as well as the method of presenting it awaited the outcome of the preliminary search. A general topic, "Advanced Compositional Techniques in Liszt's Original Piano Works," guided the investigation. In the exploratory stages, these works appeared to be just as Ravel describes them, a "magnificent chaos of musical matter." But after a year of playing (for study purposes, not concert performances) and analyzing them, what had appeared as chaos yielded to order in the form of a vast outline supported by hundreds of examples all chronologically arranged to illustrate the progressive side of Liszt's tonal thinking.

Among other things, the outline reveals Liszt's compulsion to renew his ideas continually once they settle into the bedrock of his creative process. His magnificent mass of musical matter gradually divides into a veritable maze of intervolving ideas, each evolving on its own and ultimately becoming one of the variegated facets of his final style. This view of Liszt's creative approach eludes the impatient explorer because the evidence for it exists in ever-changing shapes spreading.

\[\text{Infra, n. 27, p. 16.}\]
over a long time-span. With no reference to a time-span, self-contained analyses of Liszt's individual pieces reveal nothing more than the success or failure to evoke a particular image or mood. Even this result depends upon an understanding of a music that is freely speculative. In any case, this approach cannot reveal the continuity that brings new worlds into existence. Unfortunately, because of the complexity of Liszt's true image, this approach leads all too often to conclusions that bring to mind the famous parable of the six blind men whose descriptions of an elephant varied according to the part of the animal they happened to examine by sense of touch.

Aesthetical Background of Liszt's Creative Approach

Renewal, by extension, evolution, comes as a result of Liszt's penchant for selecting a different set of building stones for each composition, each set creating its own affinities. To meet the requirements of continually changing affinities, his ideas undergo many transformations as they adapt to different environments, each adaptation being a solution. While many solutions, as represented by peaks of achievement, mark Liszt's path of discovery, he considers no solution as final. Instead, one solution generates another as he moves ever forward. While this approach leads to increasingly radical changes, Liszt never solves his problem in the sense of arrival or final fulfillment. Because his compulsion for continual renewal remains with him to the end, his last works, like his first, stand upon the threshold of something new and different. And because the compulsion is evident from the beginning, we must seek the aesthetical basis for his creative bent by turning to his formative years in Paris, particularly to his association with the leaders of the French Romantic movement.
Victor Hugo "sounds the war cry of this movement in a great manifesto, the Preface to his *Cromwell* (1827)." The following excerpt containing the main import of the Preface becomes a veritable *credo* for the dazzling group that led the movement:

There are neither rules nor models; or rather there are no other rules than the general laws of nature which encompass the whole art, and the special laws which for every composition result from the conditions of existence peculiar to each subject; the former are eternal, internal and remain; the latter variable, external, and serve only once.

Liszt's works furnish overwhelming proof of his heeding Hugo's cry for expansion and renewal. In an overall sense, his response to the war cry sets him apart from the other composers of his era, including Wagner, despite the frequently encountered hyphen linking the two as an inseparable entity. While the others, upon reaching the height of their development, continue by perfecting their mature style, Liszt "summoned new worlds into existence, only to destroy them again."

**General Theoretical Boundaries of Liszt's Approach**

From a theoretical standpoint, the Music of the Future had to circumvent the diatonic process. While not mentioning Liszt or any other nineteenth-century composer by name, Stravinsky establishes Liszt's era as the beginning of the period in which musical materials no longer fulfill the arbitrary functions that the classic system imposes. His succinct statement on the end of the classic system provides an unequivocal

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basis for designating Liszt's compositional experience as the beginning of something new and different. It appears in one of the Charles Eliot Norton Lectures that he delivered at Harvard University in 1939–40.

The "superannuated system of classic tonality," he affirms:

... had the authority of law among musicians for only a short period of time—a period much shorter than is usually imagined, extending only from the middle of the seventeenth century to the middle of the nineteenth. From the moment chords no longer fulfill merely the functions assigned to them by the interplay of tones but, instead, throw off all constraint to become new entities free of all ties—from that moment on one may say that the process is completed: the diatonic system has lived out its life cycle.6

Stravinsky forewarns us here that the disintegration of functionality does not necessarily sound "modern," that it may result from the manipulation of simple diatonic materials. The mistaken notion that such materials must behave according to the rules of the system remains, to this day, a principal deterrent to an understanding of Liszt's method. In any event, labeling his music with elaborate Roman numeral analyses often obscures more than it clarifies. But all of this deflects us from the main point which is to delineate Liszt's historical position as it relates to the dissolution of the diatonic process.

Stravinsky's assurance that "the music of [his generation] no longer abides by the [diatonic system]"7 infers that the dissolution phase—the disintegration of functionality—has some years before 1939 run its course. This assurance, coupled with his earlier statement, helps delineate the outer limits of Liszt's experience. For present purposes, his earlier statement clarifies the beginning sufficiently,

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7Loc. cit.
but Liszt's continual thwarting of the diatonic process inevitably leads to something else. Since he links with the final phase in the evolution of the new music, a few comments upon how matters stood at the beginning of this phase will clarify, in general terms, where Liszt's experiment led.

The disintegration of functionality leads to the total "dissolution of tonal attractions" beginning in the atonal works of Schoenberg and his followers; "then," to summarize subsequent steps, "functional ultrathematization, which could only lead to the discovery of the series; then the series exploited in differing ways by Schoenberg, Berg, and Webern." On the other hand, Stravinsky, at the time of his Norton Lectures, does not subscribe to this approach. He thinks of atonality as an "abusive term." It is confusing to him and totally unacceptable, and he explains why:

> If it were said that my music is atonal, that would be tantamount to saying that I had become deaf to tonality. Now it may well be that I remain for a considerable time within the bounds of the strict order of tonality, even though I may quite consciously break up this order for the purpose of establishing a new one. In that case I am not atonal, but antitonal.

The documentary evidence in the main body of this study will show that Liszt foreshadows serial procedures, but "atonality" will not appear in the analytical discussions. Stravinsky's term, "antitonal," on the other hand, relates to Liszt's methods because he invents a myriad of procedures that hold the diatonic process in abeyance. Whole tones, or for that matter, any of the equal divisions of the octave (and Liszt uses all of them), preclude the use of unequal intervals, the

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8 Boulez, "Directions in Recent Music," p. 224.
9 Poetics of Music, p. 40.
10 Ibid., p. 41.
lifeblood of diatonicism. Stravinsky's explanation of his term alerts us to watch for situations in which Liszt obliterates tonal functions with whole-tone sound in order to proceed to a new tonal setting. But, to be sure, this is only one use of the device.

As of the moment, we see that Liszt links with two of the principal directions in the evolution of twentieth-century music. Later on, we shall have occasion to cite authorities who corroborate this linkage. In addition, they will indicate that the variegated facets of Liszt's creative process splintered in many directions. When the occasion arises, additional explanations will show why the linkage does not occur as a single juncture between his last works and what follows. All of this comes, not to prove Liszt's influence, but by way of isolating a factor that is essential to the orientation of this study. And this is Liszt's method or his creative approach.

Whole-Tone Sound—An Illustrative Idea

Thorough searches of Liszt's music, and there are not many, tend to conclude with strikingly similar comments about his creative approach. After all is said and done, this is the factor that looms forth as the most significant of all. For example, Christopher Headington, at the end of his brief study of Liszt's songs, finds the "principal achievement [in this medium] to be a method of handling materials: a method of infinite structural flexibility." He goes on to cite several twentieth-century composers upon whom the method exerts influence, the inference being that Liszt's legacy, his masterpieces notwithstanding, lies in his

The chief aim of this presentation is to clarify Liszt's method to the extent that is possible within the limitations imposed by the definition of a single idea. While the definition of the idea itself is complete, the clarification of the method as a whole is not definitive; it emerges by way of illustration. Whole-tone sound serves as the illustrative idea mainly because its evolution is virtually complete in the original piano works. In this respect, it is unique. A complete definition of any other idea would require exploring Liszt's compositions in other media. But the desire to limit the investigation to his piano works is not the only reason for selecting it to serve as the main topic of the study.

Liszt's whole-tone idea, of all his ideas, adapts especially well for illustrative purposes. First of all, it evokes an unmistakable sound in whatever guise. Moreover, one can depend upon an almost universal acceptance of the sound as an illustrative vehicle, perhaps because most music-lovers have an a priori concept of the sound. Or perhaps it raises fewer questions as a vehicle because Liszt's use of it sets him apart from other Romantic composers and stands as his most obvious link with the twentieth century. And because it provides a path that meets with little resistance, it is perhaps the best vehicle of all for entering the complexities of Liszt's creative world. But most important of all, it offers an advantage without which it could not serve as the main topic for a study of this kind. Besides lending itself readily to a step-by-step presentation that spans Liszt's entire compositional experience, the relatively few examples of the idea, no small advantage in itself, occur at crucial points in the evolution of Liszt's creative
process. Indeed, they play a vital role in these crucial developments.

Emphasis throughout the study centers not so much upon Liszt's creations as his creative bent. While his materials as well as his method of handling them emanate from the selfsame aesthetic principles, it is his unique manipulations that give his materials their shape as well as their meaning. And this holds for all of his works, the first as well as the last. His whole-tone experiment clearly illustrates this duality. As to shape, his manipulations spawn the idea, bring it to maturity as an independent compositional device, and finally, reduce it to its bare essentials. As to meaning, his masterful handling of material integrates the ever-changing shapes with ever-changing environments.

As to how this duality applies to the study as a whole, the shapes alone project the evolution of the whole-tone idea per se. The discussions relating to shapes graphically illustrate Liszt's penchant for continual renewal—how an idea, while retaining its identity, submits to increasingly radical changes and varies according to the exigencies that prevail in each new environment. This part of the dual approach is the thread of continuity for the analytical discussions as well as the principal cohesive agent for the entire discourse.

On the other hand, the shapes are surface manifestations of deeper penetrations into sub-structures. In this sense, they plot a path of discovery. The exploration of this path reveals hitherto unnoted consistencies in Liszt's creative thinking. The documentary evidence that accumulates as we travel its course clearly demonstrates that his last style, as strikingly different from the style of his earlier works as it may appear, results not from a radical change in the sense that he pursues totally different directions in his last period, but rather from
a gradual process of abstraction and reduction of his ideas.

Liszt scholars, in their anxiety to connect him with the twentieth century, frequently focus upon his late works, slighting his earlier works or simply ignoring them altogether. This oversight alone points up a need for additional clarification of his creative approach. If Liszt created a music founded upon non-functional relationships, we must first know how he achieves his goal before we can determine the extent of his influence. In short, we must first understand Liszt himself. To this end, this discourse orients to his past, not to his future. But such an orientation does more than provide a convenient tool for assessing his impact upon other composers' thinking; it clearly delineates a step-by-step move away from a diatonic context that finally ends in a style founded upon non-functional relationships, the affinities with the twentieth-century becoming ever more obvious as the style evolves. And herein lies a pitfall that can ensnare the unwary historian. The affinities, while obvious, cannot be the result of a direct linkage with Liszt's last works. An explanation of this point must come before we begin the discussions in the main body of the text.

Expanding upon this point along with certain other points raised in the foregoing statement of the problem delays launching into the unfolding of Liszt's whole-tone experiment. The delay continues through Chapter II, "Mediant Relationships," which establishes an explicit theoretical beginning point for Liszt's compositional experience, this discussion being necessary to place Liszt in the mainstream. The present discussion continues with a summary of critical evaluations of Liszt's creative approach by three prominent twentieth-century composers, all friends of Liszt. We shall have occasion to hear from a powerful Liszt
detractor in the person of Sir Donald Tovey in Chapter II. The summary of critical evaluations leads into a discussion of Liszt's original piano works that shows how they serve as the source for the study's illustrative material. Among other things, this discussion focuses upon the relationship of Liszt's early and late works, the relationship that the unfolding of the whole-tone experiment reveals. Finally, the chapter concludes with a laying out of the study's organizational plan.

Ordinarily, a study of this kind could launch directly into the subject following a succinct statement of the problem. In Liszt's case, a succinct statement is not sufficient. The necessity for additional explanations arise with Liszt because of the curious historical fact that he remains a controversial composer—this, in spite of the recognition of his genius by numerous prominent musicians. A similar necessity arises with hardly any other composer because the profile of no other composer divides into such a variegated array of parts which, in the face of a dearth of Liszt research, appear so contradictory.

Critical Evaluations of Liszt's Creative Approach

Objective appraisal of Liszt's innovative genius—how it either anticipates or influences twentieth-century procedures—became possible only after the passage of sufficient time to permit the kaleidoscopic situation in the early 1900's to come into proper focus. Objectivity in the search for antecedents of twentieth-century procedures appears to be directly proportional to the clarity with which critics discern and evaluate the principles of construction that survived the period of experimentation following the turn of the century. In any event, Liszt's relation to the new music becomes clearer in each successive stage of
its development. We shall see in the upcoming summary of critical evaluations that as the critics become more aware of Liszt's role as an impetus, the importance of Brahms and Wagner in this role diminishes. Moreover, we shall see that the shifts in emphasis jeopardize the genius of these great composers not in the slightest.

For a summary of Liszt's position, we turn to critical evaluations of his contribution by Bartók, Ravel and Searle. Repetition of certain points come in the summary as a result of the close parallels in the opinions of the three composers. In this instance, repetitions do not belabor the points, they reinforce them. In addition, they appear in differing sets of circumstances. The summary spans the present century and reveals, among other things, the universality of Liszt's influence.

Bartók leads the way in appealing for the general acceptance of Liszt's music. His appeal is all the more remarkable because it comes in the midst of a ground swell of reaction to the Romantic era. While his own reactions to the nineteenth century tinge his critical evaluations of Liszt, they do not preclude objectivity. After all, he studied and later taught piano at the Franz Liszt Musical Academy in Budapest, the only institution of its kind having a strong, continuing Liszt tradition. But this observation implies no suggestion that Liszt's ties with Hungary tinge Bartók's evaluation of his music, only that he approaches it without prejudice.

Bartók's account of his having performed Liszt's Piano Sonata over a period of years before reaching a satisfactory understanding of
the work reveals an irreproachable honesty that eliminates the slightest suspicion that chauvinism enters in his evaluation of Liszt. The account, a gentle warning that understanding (liking) Liszt's music comes neither quickly nor easily, foreshadows an assertion made by Cecil Gray, the English musicologist, that "the music of Liszt constitutes one of the most searching tests of critical acumen that the art presents." To no one's surprise, Bartók focuses attention upon Liszt's innovative genius as the principal part of his legacy. He makes the point clear enough in his first article in 1911; however, his dwelling upon weaknesses in a forthright effort to deal with the usual anti-Liszt criticisms dilutes its impact. "Side by side with triviality," he points out, "[Liszt] displayed almost everywhere amazing boldness, either in form or in invention," boldness being "really a fanatical striving towards something rare and new." While making no claim in this article that Liszt provides an impetus for further developments, he claims that Liszt's works contain "more things that are in advance of his time than those of many other composers whom the average public esteems more." Brahms, who he claims "never wrote beyond his time," is the only composer that he singles out in this connection, adding that Brahms could "not accept what was new and defiant in Liszt."
Bartók leaves no doubt about what he admires in Liszt's works in his first article, but he is apparently not ready in 1911 to assess his position in the mainstream. Fortunately, he resumes his discussion in a lecture in 1936. With complete assurance, he elevates Liszt to the top ranks, both as a composer and as an impetus for further developments, his use of Romantic cliches notwithstanding. The music-lover, he insists, must seek the "essence of [Liszt's greater works] in the new ideas, to which [he] was the first to give expression, and in the bold pointing towards the future."\(^{18}\) These are the things, he asserts, that "raise Liszt as a composer to the ranks of the great, and for their sake we love his works as they are, weaknesses and all."\(^{19}\)

While pointing out that Liszt's daring innovations appear in his "most valuable [works] which are so amazingly in advance of their time,"\(^{20}\) Bartók, unfortunately, does not favor us with explicit descriptions of them. He dismisses the "bold harmonic turns, the innumerable modulatory digressions, such as . . . the juxtaposition without any transition at all, of the two keys most distant from each other" as "mere details."

What is more important [in his opinion] is the absolutely new imaginative conception that manifests itself in the chief works (the Piano Sonata, and the two outer movements of the Faust Symphony, for instance), by reason of which these works rank among the outstanding creations of the nineteenth century.\(^{21}\)

While Bartók's opinion of Liszt's role as an impetus is clear in his previous statements, he pursues the point in considerably more detail in his 1936 lecture. At the outset, he assures us that his elevating


\(^{19}\) Loc. cit. \(^{20}\) Ibid., 200. \(^{21}\) Ibid., 202.
Liszt over Wagner in this role does not "necessarily mean that Liszt is a greater composer . . . . And yet," he continues:

Liszt's works had a more fertilizing influence on the following generations than Wagner's. Let no one be misled by the host of Wagner's imitators. Wagner solved his whole problem, and every detail of it, so perfectly that only a servile imitation of him was possible for his successors; it was almost impossible to derive from him any impulse for further developments, and any kind of imitation was barren, dead from the outset. Liszt on the other hand touched upon so many new possibilities in his works, without being able to exhaust them utterly that he provided an incomparably greater stimulus than Wagner.22

Richard Strauss enters the lecture as the first of several examples illustrating the extent of Liszt's influence. While not altogether dismissing Wagner as an influence upon Strauss, Bartók considers Liszt the principal impetus for a "new forward impulse that began to show itself" when Strauss "began almost suddenly to write symphonic poems."23 He cites several specific works by way of illustrating Liszt's influence upon Ravel and Debussy. It is his "conviction that without Liszt's 'Jeux d'eau de la Villa d'Esté' [from Troisième Années de Pèlerinage (1877)] and related works, the works of similar atmosphere and expression by these two French composers would be unimaginable."24 He refers to the related works somewhat generally as "single pieces from Années de Pèlerinage [including, beyond doubt, the first sets as well as the third], and the Harmonies poétiques et religieuses."25

Note the absence of works postdating 1877 in Bartók's evaluative comments. He could not have known the works that Liszt composed after this time because, as Searle points out, "most [of them] were only

23-25 Loc. cit.
published late in [Bartók's] lifetime." The earlier works, then furnish the new possibilities to which he refers in his statement on Liszt's position as an impetus. This point returns in the forthcoming discussion of the problem that stems from the unique set of circumstances surrounding Liszt's early and late works.

Besides Bartók, Ravel is virtually the only other progressive composer at the turn of the century who publicly professes his admiration of Liszt. His appeal for objectivity parallels Bartók's opinions, concurring that Liszt inspired subsequent composers, and insisting, as Bartók finally insists, that his faults must not preclude the appreciation of his fine qualities. He conveys his admiration in the following questions:

Of Liszt's entire output, what faults in this work matter to us? Aren't there virtues enough in this tumultuous, seething, vast, and magnificent chaos of musical matter from which several generations of composers drew?

Not all composers who are indebted to Liszt chose to be as candid about it as Ravel and Bartók. Some remained silent while others attempted to conceal their indebtedness with hostility. Ravel, one of the great orchestrators of this century, cites an example of this somewhat inverted attitude and remarks upon the irony of it in his reference to:

[Liszt's] dazzling orchestra, of a sonority at once powerful and light—what a considerable influence it exercised on the most openly avowed of Liszt's adversaries!

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One can't resist a bit of irony when one considers that the majority of the latter are pupils of Franck, who, of all contemporaries, owes most to Liszt.28

The passage of sixty years enables the present observer to see that Ravel alludes here to one of the most perplexing problems in Liszt research. His observations give some insight into how the currents of the mainstream get crossed so that the unwary historian ultimately designates other composers as the progenitors of some of Liszt's innovations. We shall have occasion to deal with this problem later in the study.

The passage of almost a century since Liszt's death enables Searle, a composer of serial music, to evaluate Liszt's innovative genius with perspicacity. His book, The Music of Liszt, while only a brief survey, reveals the depth of his search into Liszt's creative approach. An equally intimate knowledge of twentieth-century methods eminently qualifies him to evaluate Liszt's contribution from many standpoints. His linking Liszt with serial procedures will be of special interest.

Searle's placing Liszt over Wagner as an influence puts him in a somewhat unique position among the avowed followers of Schoenberg. He concurs with the opinion, not uncommon among this group, that the extension of chromaticism by Max Reger (1873-1916) and other composers "paved the way for the atonal music of Schoenberg and his followers."29 But it is not specifically Wagner's chromaticism that Reger carries forward; curiously, Searle omits him in his brief résumé of the chromatic

28 Loc. cit.

lineage, beginning instead with Liszt.  

Searle, of course, thoroughly understands the role that Wagner's chromaticism played in the destruction of the tonal world, so his omission poses no threat of contradiction. He simply amends the lineage that one encounters countless times in innumerable sources. With the inclusion of the "considerable influence that Bach's own chromatic harmonies" exerted upon Liszt in the late '40's and early '50's, the chromatic lineage properly becomes: Bach-Liszt-Wagner-Reger, and so on to Schoenberg.

Searle's designation of Liszt as the beginning of what he terms "sliding chromaticism" becomes in the face of his evidence, an incontrovertible fact for the simple and obvious reason that his use of this kind of chromaticism in such works as BACÜ Prelude and Fugue (1855) antedates Wagner's intensely chromatic essays. Historians, even wary ones, rarely note this vital link in the chromatic lineage. But what happens to Liszt at this juncture in the evolution of his creative process is more important than any further pursuit of the question of lineage. As Wagner begins assimilating sliding chromaticism into his creative process, Liszt begins his efforts to control it.

As a matter of, not fact, but reasonably safe speculation, Wagner's Tristan und Isolde, a work, incidentally, that Liszt never ceased admiring ("Tristan" was his last, dying word), could well be the determining factor leading to his decision to strive for the control of this kind of chromaticism. In any event, Liszt's creative process,

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always evolving, begins to take on more radical changes after 1860. The changes, ever more radical from this time onward, ultimately lead to what Searle describes as a "style in which every note is of importance and nothing is wasted or put in merely for effect."\(^{34}\) He points out, moreover, that it is a style "which a large number of composers have adopted today."\(^{35}\) Searle clearly suggests here that Liszt's last works foreshadow serial procedures. But it is not only in the last works that he sees this kinship. In one of his references to the works of Liszt's Weimar period in general and to the Faust Symphony and the Piano Sonata in particular, he points out that "the serial technique of Schoenberg . . . uses precisely the methods of Liszt's thematic transformation within the framework of an entirely different language."\(^{36}\)

Linking Liszt with Schoenberg's procedures, while not discredit­ing the Reger generation for whatever influence it exerted upon the founders of the serial approach, opens up a relatively unexplored avenue. Searle, dismissing sliding chromaticism as a factor, elevates Liszt to the top ranks as an impetus because of his unique approach to the handling of his materials. Of Brahms and Wagner, he says, "both these roads turned out in the end to be culs-de-sac."\(^{37}\) Of Liszt:

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\ldots \text{there is no doubt that in [his] last period he did become the prophet of the music of later generations, not so much through his harmonic innovations alone as through his general approach to music.}\(^{38}\)
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Continuing in the same vein, he moves on to the last sentence in his book which serves appropriately as the final statement of this summary:

\(^{34}\text{Searle, The Music of Liszt, p. 122.}\) \(^{35}\text{Loc. cit.}\) \(^{36}\text{Ibid., p. 61.}\) \(^{37}\text{Ibid., p. 122.}\) \(^{38}\text{Ibid., p. 121.}\)
of Liszt's significance:

No doubt [Liszt] will always remain a controversial figure . . . but we must salute him for his unique contribution to the music of his time, and must also reflect that without that contribution the music of our time would be very different.\(^\text{39}\)

Searle's evaluation of Liszt's contribution has the advantage of his having lived to see the wide acceptance of serial procedures among progressive composers following World War II; his knowledge of Liszt's last works is an additional advantage. But these are advantages only insofar as they relate to time. In spite of their speaking from different vantage points, it would seem that Bartók and Ravel would wholeheartedly agree with the succinct summary of Liszt's contribution with which Searle concludes his study. They would, however, be disappointed to learn that Liszt has not yet received the general acceptance for which they first made public appeals more than fifty years ago.

While all three of these composers agree upon Liszt's significance, it is noteworthy that different facets of his thinking attracted each of them according to his own time and according to his own interests. The stimulus that Liszt gave to these very different musical personalities, not to mention the stimuli that they claim he gave to others, clearly demonstrates that Liszt's linkage with various currents in the mainstream does not occur as a single juncture between his last works and what follows but as many junctures following his Weimar period. This rather unusual set of circumstances alludes to the probability of a constant factor that attracts all the composers for whom Liszt furnishes a forward impulse, when they receive it and how it manifests itself in their works notwithstanding. If there is such a factor, it is Liszt's

\(^\text{39}\text{Ibid.}, \ p. \ 123.\)
creative approach, more specifically, his dual approach to the creative act, an approach in which his materials and his methods of handling them enmesh so as to be practically inseparable. The isolation of this factor, a principal concern all along, now intensifies and reaches its completion by focusing upon the source material. A general résumé of the continuity of Liszt's compositional experience as represented in his piano works will answer several general questions that are essential to the unfolding of the whole-tone experiment. Chief among these is the relationship of the early and late works, the specific relationship that the main body of the text documents. The résumé begins with an abridgement of the experience which then expands for additional explanation. It concludes with a definition of two points of reference.

Liszt's Creative Approach in His Original Piano Works

The piano works accommodate the principal aim of this presentation for the obvious reason that the piano is the only medium for which Liszt composed throughout his entire compositional experience. Less obviously and equally as essential to the aim, it served as Liszt's principal exploratory medium. The early works and their subsequent revisions, almost altogether for piano, spawn and bring to maturity many of his ideas that were to remain with him to the end, the whole-tone idea among them. This period, ending in the early '50's, leads to the full flowering of his mature style during the Weimar decade. Around 1860, he begins to dismantle his Weimar edifice by reducing it to its bare essentials. The reductions spread in many directions which, while defying complete systematization, explain the universality of his appeal as an impetus. His final experiments, again almost altogether for piano,
do not lead to another period of fulfillment that is comparable to his Weimar years. The consummation of these experiments manifests itself in the proliferation of -isms that characterizes the musical situation at the turn of the century.

A retrospective period was an absolute necessity for Liszt following his years of transcendental execution. His decision to become a composer abruptly ended these turbulent years in 1847. Vast revisions of his earlier works, most of which dated from the '30's, occupied him for five years or so following this time. Upon completing the revisions, he declared them to be the only authentic editions. Moreover, as an additional evidence of his new-found confidence, he allowed most of them to stand thereafter as the final versions.

He leaves no doubt about his wishes in this matter in a letter in 1855 to Alfred Dörffel, "custodian of the town library of Leipzig," who had written to Liszt asking him for information that he needed to up-date his "Thematic Catalogue of Liszt's Compositions." In the letter to Dörffel, Liszt emphatically disavows the earlier editions of his Transcendental Etudes, Hungarian Rhapsodies, Années de Pèlerinage—Suisse et Italie, and the Paganini Etudes. Moreover, he enumerates the rather strenuous measures that he had taken to prevent any further publication of them. The illustrative examples in the main body of this study, in compliance with Liszt's wishes in the matter, come from the final, authentic versions of his works.

41 Loc. cit.
The more succinct expression in the final versions of the revised works results from Liszt's continual efforts to refurbish, refine, and thereby, clarify the basic ideas in his previous essays. Clarification, in some instances, required lengthening rather inchoate statements. On the other hand, it entailed clearing away extraneous material. In either case, Liszt's imaginative manipulations, while clarifying his earlier statements, generate new and different ideas. Intervolving ideas, new and old, generate basic concepts. In short, Liszt becomes a mature composer during his period of retrospection. He "had arrived at last at that point where the style [was] adequate to the thought," as he expresses it in a letter in 1852 to his old teacher and friend, Carl Czerny.

Liszt, now a completely assured, mature composer, confidently continued his creative work which brought forth some compositions that "rank among the outstanding creations of the nineteenth century." But the towering achievement of his Weimar years did not satisfy his creative urge; he was again ready to move on. And he did so by continuing the selfsame creative approach that had brought the isolation, clarification, and finally, the maturation of his ideas in the Weimar decade. The process of abstraction and reduction, while continuing as before, begins to manifest itself in seemingly more radical changes around 1860. But the changes simply signify the inevitable, final stages of Liszt's unceasing efforts to refine his ideas. Whereas before this time, his approach led to a clear, full expression of his ideas, it now reduces them to their bare essentials. These reductions, increasingly more

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42 Ibid., p. 131. 43 Supra, n. 21, p. 14.
radical from 1860 onward, appear most prominently in works dating from the last decade of his life.

These exploratory works, the great majority of them for piano, appear to have been a private concern. Even Liszt's closest friends seem to have been unaware of their existence. To cite one interesting example showing how closely he kept these pieces, he did not include any of them among the works he played for Debussy when they met in Rome in November of '85. While it appears that Liszt discussed some of his progressive ideas with Debussy, he would not share any of his exploratory works with him. Moreover, he made no effort to publish them. The reasons for his unshakable reticence in regard to these pieces probably tie in with his struggle to survive as a composer in the face of an ever-present, hostile press. As to why he should have composed them at all in view of the circumstances surrounding them, Liszt confesses in numerous letters to friends during his last years that he composed "in cases of urgency and from inner necessity."

Liszt became increasingly wary lest he expose himself unnecessarily to "unpleasant dispositions and interpretations," or, more to the point, to the "idle and impudent chatter of many leaders of the press." This does not mean that he became embittered; nor does it mean that he discontinued his efforts to promote certain of his works, mainly, his large choral works. But he proceeded with caution. For example, prior to seeking publication for one of these works, he

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stipulated that the work first be "performed and heard, not en passant, but seriously and several times."48 Before allowing such performances, he had to sense a certain support. If he did not sense it, he steadfastly refused to grant permission for a performance, even to his closest friends who, thoroughly cognizant of the risks involved, persisted in their entreaties. If there were to be risks, Liszt, while quite willing to take them himself, would not permit his friends to take them on his behalf; he felt it his "duty not to let [them] be injured by [prevailing criticism]."49

The situation in regard to the published piano works was another matter. Liszt's friends, the most notable being Hans von Bülow, continued playing these works, and they continued reaping denunciations from the press. Vienna's Eduard Hanslick who, in 1857, denounced Liszt's "purely original piano works" as representing a "mixture of trivialities and oddities,"50 never changed his mind, as witness his chatter about a Bülow performance in 1881:

This [a performance of Beethoven's last five Piano Sonatas] was not the last of Bülow's adventures. He topped it with a three-hour Liszt recital. He is obviously not content with little things or with things done before. He played fifteen pieces by Liszt, one after the other, and repeated four or five. The outward success was extremely brilliant, although I prefer, for the sake of Vienna's reputation as a musical community, to believe that the greater part of the applause was directed at the virtuoso. And for Bülow's sake, I prefer to believe that it was the human being rather than the musician in him that prompted [him] to such an enthusiastic exertion.51

While Hanslick's somewhat begrudging admission of "outward success" may lead one to suspect that Liszt suffered no particular injury as a result

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48 Loc. cit. 49 Ibid., p. 304.
of Bülow's performance, his review nonetheless typifies the prevailing criticism of the piano works, or for that matter, all of Liszt's works.

Permitting Liszt's music an existence of its own in the sense of allowing each of his compositions the freedom to generate its own exigencies, to create its own harmonic universe through the unhampered interplay of these exigencies, lay outside the realm of nineteenth-century critics' understanding. The discomfort resulting from their inability to understand Liszt's innovative genius unleashed their pens in vituperative onslaughts protesting the audacious intrusion of this new and strange Hydra that threatened the very existence of music as they understood it.

They could cite no authorities to justify Liszt's unique procedures; they did not exist. They dared not seek antecedents for his tonal thinking; this was sacrilege. They could not tolerate the splintering asunder of tried and true forms; this was anarchy. They could not permit Liszt into the realm of musical possibility; this was unthinkable. Denunciation was their only weapon. Liszt's music was impossible; it was Unmusik. It was, in truth, ahead of its time.

If the critics could neither understand nor accept Liszt's published works, there was not the slightest possibility that they could accept his more radical, exploratory piano works. Liszt quietly accepted this as a fact, but the fact in itself does not satisfactorily explain his keeping these pieces a private concern. The pieces were too far ahead of their time, and he knew it. He was having enough trouble promoting his works as matters stood with the press without introducing a deathknell. And beyond any doubt, these pieces would have had this effect. In any case, releasing them to public view would have placed
his promotional efforts in great jeopardy. Besides, he was tired, too tired and too old to wage a fight. He had no choice but to wait for the release of these pieces, and waiting meant keeping them in manuscript until the time was right. The time never came.

Unique Circumstances Surrounding the Late Works

If, as Searle claims, Liszt "in his last period became the prophet of the music of later generations," he was a silent prophet, and silent prophets stir no agitation for new directions. But they may anticipate them. Liszt’s last works, because they remained in manuscript until the directions of the new music became clear, exerted no direct influence. They are as it were silent soliloquies contemplating the paths of the future. Their affinities with future developments, remarkably close as they are, must not preclude our looking to the past to explain them. Their connections with twentieth-century procedures, while more obvious than the connections of his earlier works, cannot possibly be as direct.

In a sense, Liszt "influences" himself. His compulsion for continual renewal drives him ever forward to the final abstractions of his Weimar edifice. His own final works, to continue in the same vein, represent one set of derivations from the wellspring of his influence. Twentieth-century procedures, the ones bearing striking relationships with his final abstractions, represent yet another set of derivations from the wellspring. The affinities between the two sets are too numerous, the parallels too close to be dismissed as remarkable coincidences. Even though the kinship cannot possibly be the result of a direct linkage

52 Supra, n. 38, p. 19.
between the sets, it is an absolutely indispensable factor that must enter into any explanation of Liszt's influence.

If Liszt had not written his last works, this whole question would be infinitely more problematical. As it is, we may speculate with a reasonable degree of certainty that his final abstractions stand as the most convincing proof of his influence, not because of their obvious relationships with twentieth-century procedures, but because these relationships trace back to the selfsame source. This somewhat speculative conclusion implies a vast multi-pronged problem that we are not to pursue in its entirety. The present exploration deals only with the part of the problem that entails showing that Liszt's final abstractions trace back to his own earlier works, or conversely, that they culminate a self-contained, ever-evolving experience. Explicit definitions of two points of reference, one from an early work, the other from a late work, set the outer limits for the forthcoming exploration.

The Study Plan

Two Reference Points

On either side of 1860, the chronological axis of Liszt's compositional experience, we are to find symmetrical equidistant constructions involving all of the equal divisions of the octave. The earlier constructions show the whole-tone idea coming of age in short passages that integrate with massive structures, the later ones show the idea as an integral part of a complete field of equidistant associations, the field itself being the structural determinant. Thus, while showing the outer limits of the whole-tone experience, the constructions also project the outer limits of Liszt's concept of equidistance.
The constructions appear in conjunction with progressions employing simple diatonic materials first, in Hungarian Rhapsody IX (1848), then a year later in *Après une lecture du Dante, Fantasia quasi Sonata* (sketched 1837, rev. 1849). These works mark the earlier point of reference. In each instance, triads, all major, all in root position, articulate the equal divisions of the octave. Chromaticism enters the progressions only as an indispensable device helping to connect the points of articulation. It does so rather ingeniously so as not to obviate the characteristic sounds created by whole-tone or equal-third root movement. One illustrative example from the earlier period suffices for the purpose of defining it as a point of reference. The example, representing twenty-three measures, illustrates in abstract form the construction that appears in the Dante Sonata by showing the points of articulation, each pitch being the root of a major triad.

Example 1. Liszt, Dante Sonata: (rev. 1849); abstract of measures 213-36.

![Example 1](image)

Fanning out from a-flat, the center of the tonic octave, the progression moves first in a rising sequence by minor thirds, each segment of the sequence being four measures long. Upon reaching the tonic,

53 Unless otherwise noted, the source for all the dates of Liszt's compositions throughout the study is: Searle, "Catalogue of Works," *The Music of Liszt*, pp. 163-69.

54 No. 7. *Années de Pèlerinage. Deuxième Année; Italie*, hereinafter referred to as Dante Sonata.
d, a descent by whole tones traverses the octave, but the lower d is not the desired goal. In order to get back to a-flat and complete the cycle, the whole-tone descent continues past the lower d and fills in the tritone, thus completing the symmetry of the construction. Note once again that the progression fills in the tritone first by ascending minor thirds then by descending whole-tones. Tritone centricity returns in the definition of the later period as an irrevocable evidence of the relationship between the two points of reference.

From the beginning, the diminished seventh is not so much a chord in Liszt's thinking as a malleable musical substance. His fascination with the infinite number of possibilities implied by its two tritones pervades the entire structure of the Dante Sonata. In fact, it determines the structure. The center of the octave comes to the fore as a pivotal point for various constructions throughout the piece. Thus it happens that the construction shown in the foregoing example owes its shape to a determinant that exists outside itself. It is a result as well as an evidence of the integrative process that unifies the entire structure.

At the end of Liszt's experience, in Unstern (from his last years) and Bagatelle sans tonalité (1885), we are to see the construction itself as the principal determinant for overall structures. Moreover, we are to find form and content practically inseparable mainly because the intervallic distances contained in the construction permeate textures throughout entire structures. In the path that we are to follow, these pieces show the farthest limit to which Liszt carries the

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55 The source for this date is István Szélényi's edition of the work (Budapest: Zeneműkiadó Vállalat, 1956).
disintegration of functionality. Present purposes, of course, do not permit explaining how this happens. This comes later. For the moment, a single illustrative example suffices to complete our frame of reference.

At the risk of over-extending boundaries and thus implying twentieth-century concepts that do not exist in Unstern, the source for the upcoming example, we shall call its symmetrical construction a basic set. In abstract form, it contains the diminished seventh and the augmented triad. The superimposition of these chords builds in its capability to change shapes. Its ability to assume many shapes makes it a highly flexible, dual-purpose mechanism; it can determine events and control them as well. Whereas its now-ancient prototype in the Dante Sonata is a resultant, the Unstern set (Ex. 2) is a variable containing a complete field of equidistant associations and, moreover, having the capacity to bring them into play. It is thereby an abstraction that determines Unstern's shape as well as its meaning. In a broader sense, it is an abstraction of a basic concept in which the center of the octave comes to the fore. Tritone centricity lies at the heart of the concept, as evidenced by its prominence in both the prototype and the Unstern set.

Example 2. Liszt, Unstern, basic set.

![Example 2. Liszt, Unstern, basic set.](image-url)
The *Unstern* set fans out from the center of the octave, g-sharp.

By continuing the mirroring through the g-sharp octave as shown in the example, a complete set emerges in both the upper and lower parts, each being at once an inversion as well as a retrograde of the other. A similar situation ensues if the set fans out from d. Or, viewed in another way, reading in opposite directions from either d or g-sharp, the set becomes an intervallic palindrome. But, to end a seemingly endless game of symmetrical puzzles, the set reduces to a common denominator, namely, a tritone filled in with a major and a minor third. And herein lies the variable. The third, now major now minor, triggers the dual-purpose mechanism. We shall see in the main body of the text that *Bagatelle sans tonalité* employs the same mechanism.

**Rotating Mediants**

The mutable thirds trace back to the equal-third root movement described in the definition of the earlier point of reference. In the earlier period, major triads and other common chords as well, articulate progressions or sequences by equal thirds, now major now minor. During the almost forty-year interim that separates the reference points, constructions involving equal thirds shed diatonic encumbrances and finally evolve into the flexible mechanism that we are to see operating in *Unstern* and *Bagatelle sans tonalité*. We are not to observe this evolutionary process in its entirety because the whole-tone idea, our principal concern, is the only complete link between the two points. Because of the significant role that equal third relationships play in framing the outer limits of Liszt's whole-tone experiment, a rather complete definition of these relationships becomes a crucial issue in this
presentation.

George Rochberg, in his yet-to-be-published study of Webern's music, refers to equal-third relationships as rotating mediants. Hereinafter, we adopt his term. Rochberg, working backward in time from early Webern, does not trace the rotating- mediant idea to its source. This is not an oversight; his purposes do not require it. While many of the nineteenth-century composers found the idea useful (Wagner's Tristan, to mention one notable example, would be unthinkable without it), Liszt, apparently, is the first composer to use it in a radical way. In fact, a comparison of dates of the appearance of the idea in various composers' works would seem to indicate that it originates, along with whole-tone sound, in Liszt's early works as an integral part of his concept of equidistance. The crucial point is not its origin but rather its significance, and on this point Rochberg's study contains the following statement:

[Rotating mediants] have through a process of abstraction and "reduction, preserved themselves into the 20th century in a rich variety of ways and appear to provide a clear theoretical jumping off point for understanding much of what is going on in the music of Mahler, Bruckner, Scriabin, Bartók, Stravinsky, and others.57

The far-reaching significance of the rotating- mediant idea would be justification enough in itself to include a supplementary chapter on mediant relationships in this study. The inclusion of such a chapter fills several voids and thus broadens the scope of the earlier point of reference. The chapter is supplemental only in the sense that it

57 Ibid.
precedes the unfolding of the whole-tone experiment. It occupies this position so as not to disrupt the unfolding of the whole-tone experiment once it begins. But this is not the only reason for placing it at the beginning. It furnishes an explicit beginning point for the whole-tone experiment. And this necessitates linking Liszt with the past. The search for a link narrows to mediants. The path thus narrowed leads to Beethoven and Schubert, Liszt's immediate predecessors who had already upset the balance of the eighteenth-century status quo with an extensive use of mediant relationships.

A dearth of authoritative evidence linking Liszt with Beethoven and Schubert couples with uncertainties resulting from a wide divergence of opinion regarding theoretical matters to make it necessary to build a foundation for the presentation of the musical evidence supporting the link that we are to establish. It is a curious fact that historians rarely note at all Schubert's influence upon the romanticists. Even if we take into account their coverage of his supremacy in the art song, the question of his influence remains, on the whole, unexplored. The search for this study brought forth no commentaries upon the far-reaching influence that he exerted upon Liszt, this, in spite of the fact that the Schubertian image continues to crop up in Liszt's works for a much longer time than one might expect. As to Beethoven, unanimity in the opinion that he exerted a profound and long-lasting influence upon composers of the Romantic era assures no unanimity as to how it manifests itself. While one may find commentaries connecting Liszt with Beethoven, they are too general to be of any value in the present context. The chapter on mediants establishes a specific link between the two composers.
The chapter works toward a definition of Liszt's rotating-median idea as it appears in conjunction with whole-tone sound in his early works. From a rather broadly-based beginning, the focus of the discussions gradually narrows to details, specifically, illustrative examples showing chains of common chords (major triads) progressing by thirds. While insufficient to prove a linkage in a broad sense, this approach facilitates setting up comparisons that will bring to light similarities that affirm Liszt's connections with his immediate predecessors. The comparisons also bring forth differences which, in an overall sense, project a rather circumscribed view of the transition from mediant relationships that behave according to the rules of the diatonic system to mediant relationships that circumvent the diatonic process. A summary of these differences enters as a part of the definition of Liszt's rotating-median idea which concludes the chapter.

Laying the foundation consists mainly of aligning some of Liszt's attitudes with similar attitudes in Beethoven's works. The alignment of attitudes necessarily includes the thematic process. Heavy emphasis upon Beethoven's methods in the alignment of attitudes infers no slighting of Schubert. A similar emphasis upon Schubert's methods would become needlessly repetitious. While his affinities with Beethoven do not show on the surface, he followed essentially the same principles as the older master regarding key-relations. It is in the handling of his materials that he appears as a link foreshadowing certain externalizations in Liszt's style. The excerpts from his works project evidence in support of this point.
Liszt's Whole-Tone Experiment

From a standpoint of chronology, the definition of rotating mediants at the end of Chapter II juts past the beginning of the whole-tone experiment. Consequently, we drop back in time when the discussions of the whole-tone experiment begin, the definition having established a rather explicit frame of reference for its nascent phase. While rotating mediants have the edge over whole-tone sound from a standpoint of usage before they come together in Hungarian Rhapsody IX (1848) and the Dante Sonata (1849), this meeting marks the maturation point for each of the ideas. Encounters between them continue through Liszt's period of retrospection after which each idea goes more or less its separate way. Therefore, from this time onward we are to catch only fleeting glimpses of rotating mediants until we reach the final statements.

The final phase in the evolution of the whole-tone idea, already defined as a point of reference, delimits most of the discussions in the study, the overriding consideration being to show how Liszt moves inexorably toward the final integration of equidistant associations. The ever-changing shapes of the whole-tone idea themselves reveal the inexorable move away from diatonicism. The shapes, coupled with their accompanying environmental changes, determine the overall organization of the study as enunciated in the abstract of the whole-tone experience which follows.

Nascent whole-tone sound appears first in Grand Galop chromatique (1838) in conjunction with a sequence of major-minor sevenths. This passage, typical of the environment that characterizes Liszt's earliest works, would be of little consequence were it not for subsequent developments. While we are to meet with sequential sevenths again in the
Hungarian Rhapsody VII (1847) whole-tone passage, and while this passage appears to be an abstraction of the idea as it appears in the Galop, this procedure does not establish the main path that we are to follow. Consecutive chromatic chords or intervals, a procedure in common currency at the outset of Liszt's experience, appear to establish a path of entry for the other equal divisions of the octave.

Thus, Heroldscher Marsch in ungarischem Styl (1840) marks the real beginning point for our exploration. This piece illustrates the first joint appearance of rotating mediants and whole-tone sound, not in intricate intervolutions as they appear later, but one after the other with rotating mediants leading the way. While each of them follows the path of entry established by chromaticism—common chords moving by equal interval—the unrelenting use of mediants throughout the piece appears to be an impetus for the whole-tone succession of major triads in the improvisatory passage that concludes the piece. If chords—major triads—may progress in endless successions of thirds, why may they not progress in whole-tones? Whole-tone implications of the numerous repetitions of the progression, $I - bVII - bVI - V$ which becomes $I - bVII - bVI - V$ when Liszt deflects to the major mode in the final section, also must enter as a factor explaining the whole-tone succession in the final measures of the piece. The reappearance of both the progression and rotating mediants in the whole-tone passage in Hungarian Rhapsody IX (1848) leaves no doubt as to their implications in the earlier piece.

Equidistant formations, specifically, and in this order, the diminished seventh and the augmented triad, replace the major triad in whole-tone passages following the Dante Sonata (rev. 1849), thus
eliminating the possible intrusion of diatonic associations that it may suggest. Equidistant formations moving by whole tones totally suspend the diatonic process. This change moves a step closer to the final abstractions. The last appearance of whole-tone sound in conjunction with augmented triads in the Variations on a motive by Bach, Weinen, Klagen, Sorgen, Zagen (1862) concludes the first phase in the evolution of the whole-tone idea. But the shedding of chordal encumbrances that signifies the beginning of the second phase has already taken place in Der traurige Mönch (1860), thus, the first and second phases overlap.

Der traurige Mönch, not an original piano work but a dramatic monologue with piano accompaniment, appears as an illustrative example mainly because it is the first use of a single-line whole-tone scale in Liszt's works. Other valid reasons that justify going outside the principal source of illustrative material become clear at the appropriate time. The whole-tone formations following this rather sudden and dramatic change, not always a single line or, if a single line, not always a complete whole-tone scale, clearly signal the coming of the formations in the final statements. In fact, several of the formations appearing in the interim, 1860-84, polarize around the selfsame pitches and behave in much the same manner that we are to find them in Unstern and Bagatelle sans tonalité.

Analytical discussions intensify to show the culmination of the second phase by means of rather complete analyses of entire pieces. These analyses counterbalance the equally heavy theoretical concentration upon the beginning of the experience to frame the outer limits of Liszt's whole-tone experiment. In comparison with the discussions that frame the outer limits of the experience, the interim discussions
are more fragmentary, the overriding consideration, as already pointed out, being to show how Liszt moves inexorably toward the final integration of equidistant associations.

The analytical discussions of the phases in the foregoing abstract of Liszt's whole-tone experiment appear under the following headings in the study: Phase I. Whole-Tone Sound in a Diatonic Context: Nascency to Maturity; and Phase II. The Whole-Tone Scale as an Independent Compositional Device: Integration of Equidistant Associations. In the overall plan, Phase I becomes Chapter III; Phase II becomes Chapter V. Chapter IV, Metabolons, an interpolative chapter, shows how Liszt's fascination with the Greek greater perfect system affects his thematic process. This is a two-pronged explanation showing how the system influences the building of his scalar materials and how it affects his alteration process. Chapter VI, "General Summary and Conclusion," completes the study.

This introductory chapter presents much essential background material that would be somewhat disruptive to the general flow if it were scattered here and there in the main body of the study. The definitions of reference points, while foretelling the analytical approach rather explicitly, demonstrate the necessity for looking both forward and backward in the analyses. Perhaps they demonstrate more. The essence of Liszt's inspired creations remains obscure to the textbook theorist who feels compelled to label every chord to make it fit into the context of classical tonal functions just as it remains obscure to the analyst who consistently imposes analytical procedures dictated by the new methodology. The path of discovery lies somewhere between these extremes.
Liszt's penchant for mischievous functions dictates a free analytical approach that cannot remain blindly loyal to any analytical method. In this study, loyalty is to Liszt himself, or rather to his creative mind and its fascinating discoveries. Projecting a view of these discoveries as a continuous experience requires an integrated presentation that blends analysis with a musicological approach. This blend carries with it a stipulation that the definition of Liszt's whole-tone experiment adhere to musical matters.

Inasmuch as harmonic facts assume different meanings in different contexts, especially in Liszt's unrestricted play of functions, a certain amount of speculation enters in explanations of his music. But the speculations in this study, while perhaps impinging upon other matters, do not venture into distracting discussions of them. They are psychological to the extent that they attempt to follow Liszt's volition, but they resist philosophical explorations despite compelling impulses that veer one in this direction in any conscientious effort to report what happens in his music. Such explorations may come at a later time in another study, and they should come. The essential task for the present project is to demonstrate that Liszt's music can be explained in purely musical terms. Reporting the success or failure to evoke images suggested by titles, and most of Liszt's works have titles, is not relevant to the present aim.
CHAPTER II

MEDIANT RELATIONSHIPS

Beethoven—The Forest-King

Liszt's attitudes determine the course of events in this dis­
cussion of Beethoven's mediant relationships. Moreover, sonatas that he
continued to play for over fifty years furnish most of the illustrative
material for the discussion. Various theoretical viewpoints enter by
way of making more explicit the points to which he alludes in his intro­
ductive comments on the master and his works. This alignment of atti­
tudes does not lead directly into the presentation of the central issue.
A skeletal résumé of key-relations in Beethoven's piano sonatas provides
the immediate backdrop for the central issue. The résumé shows mediant
relations operating at all levels in the sonatas. From a broad archi­
tectonic level, it moves quickly to a summary of key-relations within
the separate movements. Only after laying this solid foundation are we
ready to move on to the central issue which is, simply stated, a chrono­
logical survey of various uses of chains of triads, tonicized more often
than not, that progress by thirds. The discussion orients to the idea
that these chains are prototypes of Liszt's rotating mediants, thus the
necessity for isolating and explaining them. The breadth and scope of
the explanations set up an explicit frame of reference for the presen­
tation of the illustrative examples from the works of Schubert and
Liszt.
Some of Liszt's comments, while rather general, reveal his profound respect for Beethoven and show, moreover, that the older master was a continual source of inspiration for his creative efforts. The entire discussion of Beethoven orients to the general import of the more or less random presentation of the comments that follows. One of them, an anecdote, explains the selection of "Beethoven--The Forest-King" as the heading for the discussion. In a letter of gratitude to Frau Benfey-Schuppe in 1880, presumably for her efforts to complete an article started by her first husband who left it unfinished at the time of his death, Liszt compares himself with Beethoven as follows:

I frankly confess that the title of the pamphlet 'Beethoven and Liszt,' at first frightened me. It called to my mind a reminiscence of my childhood. Nearly fifty years ago, at the Jardin des Plantes in Paris, I used often to notice a harmless poodle keeping company in the same cage with a majestic lion, who seemed to be kindly disposed towards the little chamberlain. I have exactly the same feeling towards Beethoven as the poodle towards the forest-king.58

In 1852, Liszt demurs at the division of Beethoven's works into three styles or periods. He would "divide them, instead, into two categories:

the first, that in which traditional and recognized form contains and governs the thought of the master; and the second, that in which the thought stretches, breaks, and recreates, and fashions the form and style according to its own needs and inspirations.59

The foregoing statement came as no spur-of-the-moment reaction. Liszt alludes to the two categories in a different way eleven years earlier, this time, in connection with a specific work, Septet, Opus 20:

... this work marks the summit of perfection of the classical style (an extremely arbitrary designation, in my opinion) among the non-symphonic instrumental compositions. Beethoven—as well as many great geniuses in the history of Art—is like the ancient

Janus; one of his two faces is turned to the past, the other towards the future. The Septet to a certain extent marks the point of intersection, and is thus unreservedly admired both by the devotees of the past and the believers in the future.\textsuperscript{60}

In 1863, while preparing to make his piano arrangements of Beethoven's symphonies, Liszt wrote in a letter to Breitkopf and Härtel: "The more intimately acquainted one becomes with Beethoven the more one clings to certain singularities and finds that even insignificant details are not without their value."\textsuperscript{61} Finally, Liszt himself tells us that he found in Beethoven's works a "perpetual commandment, an infallible revelation."\textsuperscript{62}

What Liszt says about Beethoven couples with what he does in his works to nourish the proposal that he understood the master's works as complete entities, not as separate, self-contained movements. This is to say that he understood the subtle, all-pervasive unifying devices in individual works that bring all of the movements together to create massive, cohesive structures. While we cannot be specific about the revelations that came as a result of his continual association with Beethoven's works, we may cite comments from two twentieth-century composer-theorists who are specific about unifying devices, the intended inference being that Liszt, had he been more specific in his comments on Beethoven, would have probably cited some of the same factors. Rudolph Réti, the source of the first citation, echoes one of Liszt's comments when he observes "that in Beethoven's music hardly any element can be discovered, no matter how inconspicuous and casual it may at first appear, which may not later be elevated to a real structural

\textsuperscript{60}\textit{Ibid.}, Vol. II, p. 492. \textsuperscript{61}\textit{Ibid.}, p. 43.

We shall have occasion at a later time to examine in detail some of Réti's theories, particularly the ones relating to the thematic process.

Roger Sessions, the source of the second citation, looks beyond the thematic process and cites additional unifying elements. His statement does not lend itself to reduction without losing much of its meaning, thus the rather long excerpt as follows:

I could cite many examples where the most essential musical ideas, the elements that give music its real character, consist not in motifs at all, but in chords, in sonorities, in rhythmic figures, or even in single notes of a particular striking context. Sometimes—and this occurs more often though not always in works of composers of great maturity, in 'late works,' as we call them—one of the most important musical ideas, in a fundamental and motivating sense, may be not even a thematic fragment at all but some feature of the large design, such as a recurring relationship between two harmonies or keys, or even a linear relationship embodied in different aspects of the music at different times.

If one doubts the necessity for aligning Liszt's attitudes with progressive twentieth-century theoretical approaches, one has only to turn to Sir Donald Tovey who would have reacted to the foregoing statements with forceful repudiations. Tovey's analytical approach, impeccable as far as it goes, cannot accommodate Liszt for the same reasons that it cannot fully accommodate Beethoven. A comment on his approach is relevant not so much because of what he understands and clarifies, which is plenteous, but rather because of what he does not understand. Thus, his approach enters as a somewhat indirect aid in the alignment of attitudes. It also enters for historical reasons. No admirer of


Liszt, Tovey stood as a powerful deterrent to the general acceptance of his music. Although he died in 1940, his powerful pen continues to be a deterrent.

A brilliant musician and an eloquent writer on musical subjects, Tovey, somewhat incredibly, in view of his intellectual equipment, locked himself into a rather narrow analytical concept involving only certain aspects of tonal and thematic relationships. "The most fundamental rule for operations in large-scale tonality," he says, "is that key-relation is a function of form." True enough, but Tovey's preoccupation with this rule appears to blind him to other form-building elements. Even in regard to key-relation, some situations appear troublesome to him. For instance, some of the relationships that occur within individual movements, in his opinion, have only tenuous connections with the home key. In his references to such situations, he repeats often, in one way or another, that the "episodes and purple patches [his term for remote regions that do not fit into his tonal kaleidoscope] must be referred to the key of the division not to that of the whole."  

Tovey evidently felt that his concept of key-relations went unchallenged as there are no scathing remarks in his writings aimed at anyone who might disagree with it. On the other hand, he repeatedly snipes at theme-finders who claim motivic relationships that do not coincide with his concept of the thematic process. He is especially scornful of claims for motivic relationships between separate movements of

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66 Loc cit.
multi-movement works. "When people see more than is there they will be very unlikely to see all that is there," or, more to the point, he asserts, "the separate movements of a sonata lose their own momentum and achieve but a flaccid and precarious unity if they try to live by taking in each other's thematic washing."67 He repeats often one of his favorite jabs at theme-finders: "But the student who, thinking that sonatas are built by thematic wit, begins by imputing it wherever he can see that there is a 'b' in 'both,' will never understand anything at all."68

A variation, one of many, of his clever 'b' theme appears as follows in connection with the last bars of the Introduction of Beethoven's Opus 111: "Some commentators have seen in these bars an anticipation of the Second Group of the Allegro con brio. There is a B in Both, and also in Bonnet."69

There is also a B in Beethoven that Tovey never saw, but this is not to question the validity of the flawless descriptions of what he did see. The fallacy in his thinking lies in his inability to entertain the possibility of the existence of an inner principle that can permeate an entire structure and generate affinities that have not much to do with thematic derivation as he understood the process. His rather shortsighted concept partially explains why he could not accept Liszt's music as one of the currents in the mainstream.

In fact, Liszt's music or rather what Tovey thought of as his insidious influence was one of the principal targets of Tovey's jabs at theme-finders. In one of his comments about this, he first frets over


68 Ibid., p. 3. 69 Ibid., p. 272.
"advice so constantly given nowadays to orthodox young composers 'to stick to the main theme and not waste energy on a multitude of new ones,'" and then proceeds to lash out directly at his target:

Schiibert is commonly cited as the awful example of such dissipation which is supposed to lead to the bottomless pit of Liszt's symphonic poems. But these nefarious works are, in point of fact, fanatical efforts to evolve a new kind of music out of transformations of a single musical germ. And the first and greatest of symphonic poems on Liszt's principles happens to be Schubert's Wanderer-Phantasie, a masterpiece of independent form which the Lisztianer were desperately anxious to explain away.70

Liszt "explained it away" by transcribing it for piano and orchestra and thereby turning it into one of the most popular of the nineteenth-century warhorses! Moreover, he demonstrated his continuing interest in the piece, the original version, not the transcription, by including it among the Schubert piano works that he edited in '68, the edition itself being the "result of many years of most delightful communion with . . . Schubert's pianoforte compositions."71

In point of fact, Liszt did work inexorably toward evolving a new kind of music in which a single germ permeates an entire structure. Late pieces such as Unstern and Bagatelle sans tonalité show the extent of his efforts in the pursuit of this direction. Despite Tovey's protest to the contrary, Schubert, who did not live to write late works, provided an impetus for this direction in his Wanderer-Phantasie that Liszt obviously welcomed. Beethoven, who did live to write late works, provided another. Tovey could not align Liszt's creative approach with either one of the masters' works because he did not see in them what


Liszt saw. His term, "transformations," betrays a viewpoint that precludes any such alignment. In the context of his analytical approach, his use of the term can refer only to surface manifestations of something that lies totally outside the realm of his concept of the thematic process.

Réti's view of the thematic process, as compared with Tovey's is antipodal. Whereas Tovey thinks of themes and motives in his analyses, Réti thinks of specific intervals that assume various shapes that become characteristic of a given sonata. Whereas Tovey frequently encounters "new" material and, what is more, defies anyone to explain it otherwise, Réti encounters no new material. It all relates through the use of what he terms prime cells or motivic intervals.

The analyses in Réti's book, Thematic Patterns in Sonatas of Beethoven, are the end-result of a four-year study of Beethoven's works. The study, incidentally, began in 1944, four years after Tovey's death. Jean Réti-Forbes summarizes his analytical approach in the Preface of his book as follows:

In these analyses [of Beethoven's works], Réti set forth some principles of composition: motivic permeation, the transformation of themes, the thematic relationship of all themes in all movements; above all, he demonstrated that in each work Beethoven established a thematic pattern, which served as an over-all architectural plan governing not only the themes themselves, but the bridges, figurations, harmonies, modulations, and even to some extent, the rhythm.72

In all fairness to Tovey, it would seem that he sees some things that Réti does not see. Harmonic details mean nothing to Tovey unless they relate to a time-span. Réti often seems to ignore the time-span.

72Réti, Thematic Patterns in Sonatas of Beethoven, p. 7.
Even a blend of the two approaches would seem not to include some of the factors that Sessions cites as essential elements that give music its real character. But this begins to impinge upon other matters! All of this dwelling upon analytical principles is for the purpose of aligning attitudes in preparation for the analytical discussions that are to follow the upcoming résumé of Beethoven's key-relations.

C. F. Weitzmann, Liszt's close friend and a fellow-member in the Union of the New German School, provides an appropriate introduction to the discussion of Beethoven's key-relations by pinpointing our principal area of concentration as follows:

Familiar with all the rules of ancient counterpoint, [Beethoven] quickly recognized the enduring laws, as well as what was untenable, in the same. He ventured upon bolder progressions and modulations, and thus became the efficient reformer of the science of modulation practiced until then. For it was he who exhibited in his practical works that the affinity of keys is not to be determined according to degrees (e.g., C major—G major—D major, or C major—F major—B-flat major) but must be sought in the connection of the tones of their fundamental chords; thus the key of C major, for instance, is connected through the Third not only with a minor and e minor, but also with A major and E major, and likewise, through mediation of the like-named key of c minor, with A-flat and E-flat.73


The Schirmer edition of this work is from the second augmented and revised German edition by Dr. Theodore Baker. In the "Biographical Sketch of the Author" that precedes the "Author's Preface and Introduction," Otto Lessmann explains the early history of this work as follows:

In 1863 was issued, as Part III of the Lebert-Stark Pianoforte School, the 'History of Clavier-playing and Clavier-Literature,' published later as a separate work, in a second edition augmented by a 'History of the Pianoforte.'

This second edition would be Baker's. It is also the second edition that Liszt mentions as "having perused with great pleasure" in a letter in 1879 (cf. Letters, Vol. II, p. 358).
Beethoven did not replace traditional polarities with mediant relationships, as Weitzmann appears to imply; he expanded the tonal spectrum to include them. He relates keys by thirds and/or fifths in a variety of ways. Thus, in his system, mediant relationships operate in an expansive coexistence with traditional relationships by fifths. Beethoven had before him numerous antecedents suggesting such an expansion, but it was he, as Weitzmann claims, who developed it into a workable system. A brief explanation of his system of keys, despite the inevitable pitfalls in brief explanations of complicated matters, will pave the way for a better understanding of the résumé of key-relations in his piano sonatas that will soon follow.

Beethoven's expanded tonal spectrum includes, as Weitzmann implies but never states, the related keys of both major and minor keys built on the same tonic. Tovey explains this point in his inimitable style as follows:

The first basis . . . of wider key-relation is that major and minor keys on the same tonic are identical. The fact that the so-called 'relative major' is a convenient point of backward reference . . . has nothing to do with the matter; it is an accident that has misled the tonic-sol-fa-ists, but has misled nobody else. Not A minor, but C minor is the minor mode of C.74

In the example illustrating this point (Ex. 3), C is the home tonic. The descending scale, C minor with a flatted second degree, mirrors the ascending scale, C major. The Roman numerals designate keys as they relate to the home tonic. They may, of course, also designate triads. Calculating from any given tonic, keys built on ten pitches become available in Beethoven's system, all of which may change mode.

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As a general rule, keys built on the sharped fourth and natural seventh
degrees do not come in for practical usage as keys in a macrotonal sense,
i.e., keys for principal sections in the various forms. While available,
♭VII appears infrequently. Although not among the closely related keys
in either the major or minor mode, ♭II appears frequently. The résumé
summarizes the other frequently used keys.

Triads on both the major and minor sides (Ex. 3) may function in
the home key or they may become tonics of related keys. The mention of
the term, "related," raises a question of terminology. If the home key
is major in a given composition, the textbooks, most of them, refer to
triads that deflect to the minor mode as "borrowed chords," the analo­
gous keys as "remote." Practical usage from Beethoven onward would
seem to indicate that some adjustment in terminology is in order. Term­
inology notwithstanding, Beethoven brought the closely related keys of
both the major and minor modes into a workable relationship. The text­
book terms do not appear in this discussion because they seem to betray
a basic misunderstanding of Beethoven's system of keys. The following
example shows the keys that relate to the home tonic, c:

Example 3. Beethoven's system of keys.

Beethoven's choice of keys for the contrasting movements of his
piano sonatas illustrates the practical application of his system of
keys on a broad architectonic level. Half of the sonatas retain the
same tonic for all movements. Of these eleven change mode in the
contrasting movement; five do not. Six of the sonatas turn to the sub-
dominant for the key of the contrasting movement. Nine of them turn to
a tonic built on the natural or flatted sixth degree, the preference
being for the latter.

Of the forty-six sonata-form movements in the piano sonatas,
sixteen are minor, thirty are major. Only six of the minor movements
move to the so-called "relative major" for the second group. This is,
by the way, Tovey's term that he uses to refer to the second principal
key-area in sonata form. The third movement of Opus 106 is in f-sharp,
the enharmonic equivalent of g-flat which is bvi in relation to the home
tonic, B-flat. Beethoven turns to D for the second group in this move-
ment. D is bVI in relation to the key of the movement, III in relation
to the home tonic. The first movement of Opus 111 moves from c, the
home tonic, to its bVI, A-flat, for the second group. Beethoven pre-
fers the traditional move to the dominant key for the second group in
sonata-form movements in major keys. Twenty-six of the thirty move-
ments in major keys follow this tradition. This includes Opus 2/2 in
which the dominant is first minor then major. Both Opera 31/1 and 53
move to III for the second group in the first movement. Opus 78 moves
from F-sharp to D-sharp (VI) in the second movement. Opus 106, first
movement, also turns to VI for the second group.

Of the sixteen rondo-form movements in Beethoven's piano sonatas,
fifteen are major, one is minor. The Rondo in Opus 13 moves from c, the
home tonic, to bIII for the first episode, to bVI for the second episode.
The rondo movements in major keys, with few exceptions, turn to the dom-
inant for the first episode. The second episodes, sometimes developments
or quasi-developments, favor mediant relationships. Almost all of the
exceptions regarding second episodes are in the subdominant key.

Beethoven's da capo movements follow more or less the same general pattern of key-relations that we find in the sonata- and rondo-form movements. Only three of the trios turn to the so-called "relative minor;" the rest of them either remain in the same key, with or without a change of mode, or turn to the sixth degree (VI or bVI). Again the preference is for the flatted sixth. Opera 2/2, 101, and 110 turn to the sixth degree in the first principal section of their da capo movements, these movements being exceptions to the more common practice of remaining in the home key for the first section.

Beethoven casts roughly two-thirds of his piano sonatas in major keys, twenty-three, to be exact. Whereas the sonatas in minor keys adhere rather strictly to the closely related keys of the minor mode, the sonatas in major keys frequently deflect to the minor side of the tonal spectrum for keys to serve in principal sections of the various forms. We see these deflections in the foregoing summary in the change of mode for contrasting movements, in the trios of the da capo movements, and in the second episodes of the rondo movements. The flatted sixth degree figures prominently in the deflections. Sonata-form movements in major keys, while adhering rather strictly to the traditional practice of turning to the dominant for the second group, turn in exceptional cases to III and VI, there being two instances of each. Rather strict compliance with the traditional key-scheme in expositions does not preclude deflections to the minor mode elsewhere, as in the first-movement development of the Sonata in D, Opus 10/3, which we shall have occasion to observe in more detail later on. While the sonatas in which the home key is minor adhere rather strictly to the closely related keys of the
minor mode there are changes of mode, as in the c-sharp minor Sonata, Opus 27/2 in which the middle movement turns to D-flat, this key being the enharmonic equivalent of C-sharp. The f minor Sonata, Opus 2/1, to mention another example, turns to the major mode for the second movement and again for the trio of the da capo movement. More significant is the move to the subdominant major in the recapitulation of the first movement of the c minor Sonata, Opus 10/1. A different matter is the situation in which a sonata begins in minor and ends in major as in the late Sonatas, Opera 90 and 111. Both Schubert and Liszt grew fond of this procedure.

A discussion of polarities involving mediant relationships will lead to the isolation of smaller tonal groupings involving mediants in local situations. The discussion concerns itself mainly with the question of what happens to traditional polarities when Beethoven moves from the home tonic to either III or VI.

As we already know, the contrasting movement in the C major Sonata, Opus 2/3, moves to E (III). Following the move to III, the episodes in this rondo movement align with the traditional sonata-form key-scheme. The second episode, in C, is a recapitulation of the material that is in G in the first episode. This sonata illustrates the coexistence of mediants with traditional polarities in an early work.

A later C major Sonata, Opus 53, stretches traditional relationships considerably beyond what we find in Opus 2/3. The dominant key, conspicuously absent in this work, yields to mediants in the construction of its tonal framework. The subdominant key, on the other hand, appears frequently. A move to A (VI) in the recapitulation of the first movement counterbalances the move to E (III) for the second group in the
exposition. In the first episode of the Rondo, Beethoven turns to a (vi) instead of the dominant, his more usual choice for first episodes in major keys. The subdominant, sometimes minor, enters often, as in the development of the first movement, in the Introduzione to the Rondo, in the concluding bars of the first episode in the Rondo, as iv in the second episode which turns to the tonic minor, and in the final Prestissimo.

While the move to III in the first movement of Opus 31/1 parallels a similar move in the first movement of Opus 53, the two sonatas, if compared in their entirety, are quite different in regard to the use of the traditional tonal pillars. The dominant key, absent in Opus 53, appears in the first episode of the final movement of Opus 31/1. Both of the sonatas make generous use of the subdominant key in different ways for different reasons. The somewhat imposing number of subdominant entries in Opus 53 must not suggest an overemphasis of that key. Beethoven's infallible sense of tonal balance, as much as any other factor, explains his rejection of the Andante favori in F, the first-written and originally-intended second movement of this sonata. His final choice, a much shorter Introduzione, does not throw overall tonal relationships out of kilter. The middle movement of Opus 31/1, a lengthy ABA structure in the subdominant key, is a different situation because, among other factors, a move to the dominant in the final movement tends to counterbalance the preceding statement in the subdominant.

The foregoing discussion of the tonal framework in Opus 31/1 and 53 shows that a move to III brings about many adjustments in the concept of the tonic as a centripetal center between the traditional tonal pillars. Somewhat similar balances and counterbalances appear in Opera
78 and 106 in which the move is to VI for the second group. As in the previous examples, this move usurps the dominant. The usurpation takes place in the second movement of Opus 78 and in the first movement of Opus 106. In the case of the latter sonata, mediant relationships abound in all of the other movements, and this explains why the dominant as a key is so little evident in this sonata. In this regard, if no other, Opera 53 and 106 are similar. The absence of the dominant key in both sonatas traces to an extensive use of mediant relationships. Both sonatas also make generous use of the subdominant key, but there is an important difference. Opus 53 touches upon the minor subdominant only slightly. Opus 106 turns to this key for a principal section in the Fugue. Opus 106 looks ever-forward to the future. Opus 78 looks both forward and backward. While its last movement turns to mediant relationships, the dominant assumes its traditional role as the key of the second group in its first movement.

On the one hand, Beethoven makes extensive preparations for the coming of a mediant key in a principal section. On the other hand, an abrupt turn to a mediant key, sometimes a dramatic irruption, is also a characteristic procedure in his works. The striking contrasts that these abrupt turns produce account for some of his most dramatic moments. While they may occur in many different situations, he makes especially effective use of them in his developments and second episodes. This kind of abrupt turn of events occurs in these places in the first and fourth movements of the D major Sonata, Opus 10/3. In each passage, the irruption is to $\text{VI}$. The first outburst follows a deflection to the minor mode. In the Rondo, $\text{VI}$ bursts forth in a deceptive resolution.
The progression in each passage is basically the same, namely bVI - iv - bII (examples 8 and 9). We shall observe at the proper time important differences in the progressions. Formal exigencies dictate a return of the home key following bII in each of the progressions. The route to the home key in the first-movement passage is rather direct; bII progresses to V and then to i in d on the way to reaching the desired goal, a dominant preparation for the return of D in the recapitulation. The route is more circuitous in the Rondo. A raised root converts the Neapolitan into a diminished formation by way of tonicizing F (bIII), but we do not know this until we pass the fermata. One deceptive turn leads to another in this movement. In this instance, F is the dominant of bVI. The move to bVI leads to another fermata and another diminished chord, this time the one that tonicizes the home key, but again, we do not know this until further forward movement prepares for the return of the principal theme in D. Our main point of interest in all of this is the progression from bVI downward by thirds to bII as it is a prototype for Liszt's rotating mediants.

The unifying powers that the recurrence of this progression lends to this sonata as a whole are rather self-evident in the illustrative examples. What is not evident in the examples is that the shape of the progression relates to the opening theme of the movement in which it occurs. It will be helpful to examine the opening themes and determine certain relationships before turning to the progressions themselves. Réti extracts "two prime cells from the opening theme [of the first movement],"75 a fourth and a fifth. These motivic intervals

75 All of the citations pertaining to the D major Sonata, this one and the ones that are to follow, appear in "Transformations in the D major Sonata, Opus 10, No. 3," in Thematic Patterns, pp. 190-91.
assume two different shapes in the theme, the one being filled in step-wise, the other being broken into thirds or, in the case of the fourth, a major third plus a minor second. He designates the fourth as (a) and the fifth as (b) as follows:

Example 4. Beethoven, Sonata in D major, Opus 10, No. 3, opening theme.

He then points out that the "opening of the Finale [is] a counterpoint of (a) and (b) in inversion:

Example 5. Beethoven, Sonata in D major, Opus 10, No. 3, opening theme of the Finale.

The arpeggiation of the principal chords in the progressions (examples 8 and 9) relate to (b). The shape that (b) assumes in the opening themes determines the direction of the arpeggiation, upward in the first movement and downward in the Rondo. The opening themes of the
inner movements also relate to the opening theme of the first movement. A foreknowledge of this relationship will enhance the understanding of the overall structural significance of the progressions when we come to them. Réti shows the relationships as follows:


Example 7. Beethoven, Sonata in D major, Opus 10, No. 3, opening theme of the Menuetto.

The relationship of the Menuetto theme to the opening theme of the first movement is perhaps more open to question than that of the Largo e mesto theme. Réti explains the Menuetto theme "as a variant of the same feature [the fourth in the opening theme of the first movement] with an ascending sixth (inversion of the basic third) as an Auftakt; and this Auftakt is already announced in the second Allegro theme [from the first movement]."

While one may disagree with specific points in Réti's analyses, something along the lines that he proposes happens in Beethoven's music.
What is more, it happens in his early works as well as in the late ones. Réti's attempt to show a thematic relationship of all themes in all movements points up cogent evidence of a unity that is anything but "flaccid and precarious." In the light of his discoveries, controversial though they may be, Tovey's insistence that the separate movements of a sonata cannot "live by taking in each other's thematic washing" must fall by the wayside. In the present instance, Réti aids in establishing the structural significance of the progression that concerns us at the moment. The motivic relationships that he cites, while not exactly peripheral to the present discussion, will become increasingly relevant to future discussions, most particularly to the ones relating to the symmetrical constructions in Liszt's Unstern and Bagatelle sans tonalité.

Example 8. Beethoven, Sonata in D major, Opus 10, No. 3, first movement (Presto), measures 141-63.
The progression in the first movement (Ex. 8) appears in a sequence in which each segment is eight measures in length. The first four measures in each segment emphasize the principal chords in the progression. The last four measures of each segment emphasize the dominant seventh of the beginning chord in the segment immediately following. The principal chords, in root position at the beginning of each segment, rise in the l.h. on an arpeggiated theme that traces to (b) in the opening theme of the movement. Melodic interest shifts to the r.h. in the last half of each segment. The r.h., following a leap of an octave, descends scalewise over the dominant of the principal chord that follows. The dominant finally attains root-position status in the last half of the bar immediately preceding the principal chord. All of this creates a recurring pattern of an energetic arpeggiated rise on the principal chord followed by a stepwise descent on the tonicizing chord. The last segment breaks the sequence by turning to the dominant of the home key.

Melodic interest remains in the r.h. in the progression when it appears in the second episode of the Rondo (Ex. 9). In this passage (mm. 33-38), the sequence reduces to three two-measure segments that move abruptly from one to the next without benefit of tonicizing chords as in the development section of the first movement. The passage contains dominants, but they follow rather than precede the principal chords. Placing the dominant after the principal chords creates an effect of "tumbling down the stairs." For a fleeting moment the listener may perceive that the dominant is to resolve to its tonic. This is but one of many clever deceptions in this movement. What one may perceive
momentarily as the root of a chord of resolution at the beginning of each segment becomes the third of the next principal chord in the progression. Following an octave leap, which is itself yet another tie-in with the progression as it appears in the first movement, the principal chords, arpeggiated as in the first movement, descend over an Alberti bass that assures root-position status throughout the descent. The arpeggiation, as well as its descending direction, relates back to (b) in the opening theme of the movement (Ex. 5). No auxiliary notes appear in the arpeggiations as in the first movement. The dominant seventh chord ascends in the r.h. in broken-octave arpeggiation in the last bar of each segment. It never attains root-position status.

Considered as an entity, the progression, \( b\text{VI} - b\text{iv} - b\text{II} \), comprises a tonal region that Beethoven brings into his tonal spectrum in a variety of ways. Occurring naturally in the minor mode, the region appears frequently in the major mode. It is a part of the face that turns to the future, to recall once more Liszt's comparison of Beethoven with the ancient Janus. What is more, it is already clearly discernible before the end of the eighteenth century. The Opus 10/3 sonata, published in 1798, represents the first use of the \( b\text{II} - b\text{VI} \) region as a basis for a principal section in his piano sonatas. His explorations of the region in this sonata demonstrate an assurance that is not present in earlier works. In fact, they appear to represent a moment of decision. A look backward will show some of the steps leading up to the decision. A look forward will show later explorations of the region as it appears in the development section of the first movement of the \( f \) minor Sonata, Opus 57. The look forward continues with a discussion of certain features in the A-flat Sonata, Opus 110, particularly the development section of its first movement and its relation to the rest of the sonata. The discussion of Beethoven's mediant relationships concludes with a brief look at an extraordinary progression by thirds in the B-flat Sonata, Opus 106.
Whereas the Opus 10/3 sonata represents the first use of the progression, bVI - vi - bII, in a principal section, it does not represent the first use of major keys from the minor side of the tonal spectrum in the development section of a sonata in a major key. The keys, bIII and bVI, appear in the development section of the first movement of the A major Sonata, Opus 2/2 (examples 10 and 11). Moreover, the Opus 10/3 sonata does not represent Beethoven's first use of tonicized chains of chords moving by thirds in his sonatas. He finds these chains useful in modulatory transitions in some of the earlier sonatas. The selfsame progression that we observed in Opus 10/3 functions in a modulatory sequence in the move from c to E-flat in the exposition of the c minor Sonata, Opus 10/1 (Ex. 12). Various other moves to the bVI-bVI region precede its use in the Opus 10/3 sonata. One such move occurs in the coda of the last movement of the E-flat Sonata, Opus 7 (Ex. 13). In bare octaves, a fortissimo dominant moves up a minor second to a pianissimo flatted sixth, b being the enharmonic equivalent of c-flat, which turns into the dominant of bII. Following a brief statement of the principal
theme of the Rondo in E (F-flat), Beethoven returns to the home key.
The return is again by chromatic inflection, this time to the home dom-
inant. Progressions involving chains of chords moving by thirds do not
necessarily deflect to the minor mode. In the E-flat Sonata, Opus 7
(Ex. 14), a sequential chain of tonicized chords moving by thirds divides
the dominant octave as follows: B-flat (I) – g (vi) – E-flat (IV) –
c (ii) – I₆ – V₇ – I, this progression being a part of the confirmation
of the dominant key in the exposition of the first movement.

Example 11. Beethoven, Sonata in A major, Opus 2, No. 2, first movement
(Allegro vivace), measures 159–67.

Example 12. Beethoven, Sonata in c minor, Opus 10, No. 1, first move-
ment (Allegro molto e con brio), measures 27–51.


Apparently Liszt did not play the early sonatas. William Newman, in his typically thoroughgoing scholarly manner, lists the sonatas that he did perform and then cites the ones from the list that he performed most frequently as follows:

Among the Beethoven piano sonatas that Liszt actually performed, ten can be cited that he played publicly at least twice. They are Opera 26, 27/2, 31/2, 57, and 90, and all of the last five sonatas—Opera 101, 106, 109, 110, and 111. . . . The sonatas he seems to have played most of all, in order of frequency, are Opera 27/2 (far in the lead), 31/2, 26, 57, and 106.76

Newman's information assures us that the sonata to which we now turn, Opus 57, was one of Liszt's favorite works. It is of interest to note further that his close association with the sonata lasted more than a half-century.

Our chief point of interest in Opus 57 is a chain of tonicized triads progressing downward by thirds in the development section of the first movement. The interest extends to include the relationship of this progression to the tonal framework of the sonata as a whole. The view of the tonal framework that we are to project would seem to elude the analyst who complies strictly with Réti's analytical approach. Nevertheless, some of his comments on the prime cells that he extracts from the opening theme of Opus 57 are helpful in the pursuit of the main point of interest. He points out that the prime cells (motivic intervals) "assume specific individualities . . . in the Appassionata [Opus 57]" as follows:

The fifth is primarily a falling fifth, the fourth an ascending interval. Analogously, the basic appearance of the third is a stepwise descent, while the sixth leaps upwards. But should a third occasionally appear in an ascending form, it does so only as a clear contrary motion to a descending third immediately preceding it.77

Elsewhere, Réti cites an additional motivic interval, the minor second, and points out that this interval appears in numerous shapes throughout the sonata as an upper or lower neighbor.78 The minor second comes in for further discussion as it relates more directly to the chief point of interest. Further clarification of the other motivic intervals that Réti cites would take us too far afield. Of the others, it suffices to say

77Thematic Patterns, p. 99. 78Ibid., p. 100.
that his claims are convincing.

To Réti's proposal that all of the themes in Opus 57 grow out of the motivic intervals stated in its opening theme we may add the proposal that the opening theme also generates the tonal framework of the entire sonata. The latter proposal becomes more credible if one relates what happens in the beginning bars with what happens in the development section of the first movement. We shall come to the discussion of this section momentarily, but first we must show how it relates to the opening theme.

The sequential juxtaposition of the home tonic with its Neapolitan (G-flat) that begins the sonata (Ex. 15) recurs in form-delineating passages in the outer movements, both of which are in sonata form. Occurring also in the beginning theme of the final movement, the relationship signals the beginning of the recapitulation in both movements. It appears transposed to b-flat in the development of the final movement. The relationship, f-G-flat, recurs in this section, not as i-bII, but as
v-bVI. The last appearance of the relationship comes in the coda of the final movement by way of summarizing the tonal poise of the entire work. The relationship, i - bII, is but one of numerous variants of one of the prime cells that Réti cites, the minor second. He thinks of the opening bars "as an expression of the pitch C [the dominant]," and explains further that "the whole of the opening period represents a huge prime cell [the minor second] in itself (D, C flat, C)."79 Internally, the cell is also in operation within the sequential segments of the opening period. It expands to a major second in measures 3, 7, and 9, first from c, then from d-flat, and back again to c. This occurs in the r.h. The minor second appears in all three of the voice-parts in the l.h. as either an upper or a lower neighbor. The repeated-note figure, a minor second, sounding alone in the bass (m. 10) appropriately signals the important role that it is to play in molding the structure of the work.

While Beethoven continues using the Neapolitan chord in a traditional way, it becomes in his system a fundamental chord in both the major and minor modes. In this latter capacity, the tones that comprise the chord generate relationships in much the same way that the dominant and subdominant generate relationships. It is this capability that places the use of the bII-bIV region in Opus 57 far in advance of the use of the region that we observed in Opus 10/3. If one accepts the generative powers of the chord as a patent harmonic fact, one can see that it is no accident that the juxtaposed chords that Beethoven states at the beginning of Opus 57 generate keys that determine its total tonal structure. By superimposing the tones of the two chords in thirds, designating the

79Thematic Patterns, pp. 103-05.
key that each tone generates, and showing the relation of each key to the home tonic, we arrive at the following: G-flat, bII; b-flat, iv; D-flat, bVI; f minor (home tonic); A-flat, bIII; and c, v. Beethoven builds the large formal sections, the tonal framework, with these keys.

The development section of the first movement presents these keys in the same, but reversed, order in symmetrically-arranged sequences on either side of the tonic (Ex. 16). The tonic, as we would expect, does not appear in the development. Nonetheless, it lies at the center of the two sequences, the first ending a third above, the second beginning a third below. Working both forward and backward from the center perhaps explains the symmetry of the passage in the clearest way. Proceeding backward from A-flat, the passage extends in steps by thirds to e (f-flat), an indirect Neapolitan relation to the tonic. Proceeding forward from D-flat, the passage continues in steps by sixths to G-flat, the Neapolitan. Whether one thinks of e as an indirect Neapolitan is not of any consequence. The crucial point for the understanding of the symmetrical design of the passage is that the chains of thirds fan out from the center to within a minor second of the home tonic. This probably explains Beethoven's use of E then e in the first place. The symmetry of the design demands it. The play on E harks back to the opening period in the movement. There is no play on e. The turn to this key is in the form of an abrupt deflection to the minor mode (m. 78). And this is the beginning of the downward progression by thirds. The first sequence makes use of the opening theme. As in the first movement sequence in Opus 10/3, melodic interest crosses from the l.h. to the r.h. Similarly, the first half of the sequential segment dwells upon the principal chord, the second half tonicizes the next principal chord. Melodic interest remains in the r.h. in the second sequence which begins in measure 109. Again the sequence is in four-bar segments, but the steadily rising bass-line precludes the use of the two-plus-two scheme of the first sequence. This rise leads ultimately to the tumultuous preparation for the return of the
home tonic in the recapitulation. The rise also accounts for another dif­ference in the two sequences. The first falls by thirds; the second rises by sixths. Not yet noted is the fact that the second sequence makes use of the first theme of the second group. Already noted is the use of the trill figure from the opening period in E at the beginning of the development. We also know that the first sequence develops the opening theme, the arpeggiated theme without the trills. The dominant prepara­tion for D-flat (mm. 93-108) virtually transposes measures 24-33, the dominant preparation for the coming of the second group in A-flat. Thus, while presenting the exposition in microcosm, Beethoven lines out the tonal framework of the entire sonata in the development section of the first movement.

The tonal framework spreads over an incredibly long time-span. The exposition of the first movement, as we already know, goes from f to A-flat (vIII) for the second group and then to a-flat (biii). The middle movement turns to D-flat (vI). Quiet interchanges between this key and its dominant (vIII in relation to the home tonic) in the variations of this movement stand as a possible analogue with the treatment of these keys in the development of the first movement where they link the sequences and thus serve as a pivotal balance for the tonal symmetry of the smaller design. The keys of the principal sections in the final movement are i, iv, and v, v being the key of the second group and iv being the key of the development. The final coda brings in vIII once again before the final juxtaposition of the home tonic with its vII which concludes the sonata.

As in Opus 57, our chief point of interest in the Opus 110 Sonata is a chain of tonicized regions progressing by thirds in the development
section of the first movement (Ex. 17). For all practical purposes,

Example 17. Beethoven, Sonata in A-flat major, Opus 110, first movement (Moderato cantabile molto espressivo), measures 44-57.

the passage, while quite free, is a sequence. The first segment, not shown in its entirety in the example, consists of two four-measure phrases in f minor. The example begins with the second phrase and includes the remainder of the development plus two measures of the recapitulation. The reason for including the beginning of the recapitulation becomes apparent momentarily. Alden Ashforth avers in his penetrating study of this sonata that this passage delineates the tonal framework as
follows:

The tonal succession of the large structural units of the sonata reflects the same pattern as the succession of tonicized regions in the development section of the first movement. The second movement opens in f minor, the trio of the second movement is in D-flat major, and the last movement is in b-flat minor before returning to A-flat major.80

The passage develops the opening theme and glides almost imperceptibly into the recapitulation. No dominant preparation precedes the return of the home key. The combination of the opening theme in the r.h. and the arpeggiated theme (mm. 56-57), which in the exposition enters alone in measure 12, suggests a continuation of the development. Ashforth presents a convincing argument that the development section is a part of a larger scheme that by-passes traditional formal boundaries and runs its course in the recapitulation:

In terms of harmonic relationships, in the development sequence each new region is a submediant in relation to the preceding region, whereas in the recapitulation sequence [Ex. 18] each new region is submediant in relation to the following region.81

What is more, each region restates a different portion of the first group; each has its own theme. The arpeggiated theme, first appearing in the recapitulation in combination with the opening theme, takes its "proper" turn in measure 70. The regions to which Ashforth refers begin with the subdominant (m. 63) which, after four measures, becomes minor. The deflection to the minor mode coincides with a striking enharmonic change (m. 67) which leads to the arpeggiated theme in E (F-flat), §VI, after which the recapitulation resumes in the home tonic. By way of showing the symmetry of the design that results from this


81Ibid., 99.
rather unusual deviation from traditional procedures, the cycle of descending thirds and rising sixths—from the beginning of the development to the return of the second group in the home tonic—spans thirty-seven measures, or almost exactly one-third of the movement.

Example 18. Beethoven, Sonata in A-flat major, Opus 110, first movement (Moderato cantabile molto espressivo), measures 60–70.

Ashforth demonstrates the thematic relationship of all the themes in the Opus 110 Sonata as a part of the proof of his thesis that "the relationship of the sixth underlies the progression of the entire work." His analytical approach to the thematic process differs

82"The Relationship of the Sixth," 94.
somewhat from Réti's but he emerges with similar results. What he says about the relationship of the opening theme (Ex. 19) with the fugue subject (Ex. 20) ties in with our previous discussions of the thematic process in Beethoven's sonatas:

Ordinarily, we would think of the fugue subject as having been 'derived' from the opening theme of the sonata. Unfortunately, this very observation tends to obscure a more important, although less obvious, observation: both themes span the interval of a sixth from A flat to F (from the tonic up to the submediant degree), and that both cases involve a systematic filling-in of this hexachord by all the diatonic degrees within its limits.83


Even Tovey agrees that the fugue subject relates to the opening theme, but his comment on it which follows shows rather conclusively that he does not ascribe the relationship to an underlying generating element:

The sequence of rising 4ths and falling 3rds has a resemblance

83 _ibid._, 94.
to the first movement of the Sonata; and, though in itself this
would not be beyond the range of accident, it is too like the
proved subtleties of op. 106 to be ignored. The resemblance of
the 1st bar of the Arioso to the 1st figure of the Scherzo is
less likely to have a special meaning; if we stake our faith on
that, we may as well go further and find cryptographic evidence
that Beethoven's later works were written by Spohr. 84

Tovey writes of the proved subtleties in Opus 106 as follows:

While this Sonata was in the press Beethoven added an introdus-
tory bar to the Adagio, and explained to the publisher that his
object was to echo the end of the Scherzo. This being so, we
can hardly regard as accidental the fact that the theme of the
Scherzo is like that of the first movement in consisting of a
third which rises and falls back again; while the upward 10th,
with which the fugue-subject of the Finale begins, is reminis-
cent of the upward leap at the beginning of the first movement.
Here, then, is the scheme of these relations:

But Tovey does not permit the non-too-subtle relationship of the open-
ing themes of this sonata to permeate its total structure. He takes
this occasion to warn us once again that "in these matters Beethoven
does not, as is often supposed, foreshadow modern developments." 86
In
view of his steadfast refusal to permit the separate movements of a
sonata "to live by taking in each other's thematic washing," imagine his
displeasure with a proposal that separate sonatas sometimes appear to

84 A Companion to Beethoven's Pianoforte Sonatas, p. 265.
85 Ibid., p. 221.  86 loc. cit.
have connections that one can hardly regard as accidental. This issue is more likely to arise in sonatas that Beethoven composed one after the other. Opera 109 and 110 present such an issue. Whether by accident which is unlikely, whether a subconscious act which is a possibility, or whether a conscious act which is yet another possibility, the opening theme of Opus 110 is a free inversion of the opening theme of Opus 109 (examples 21 and 22). Pointing out this similarity carries with it no inference of additional relationships between the sonatas. Indeed, the remarkable fact is that Beethoven could compose two such different works out of basic shapes in which striking similarities are self-evident.


\[\text{Example 22. Beethoven, Sonata in A-flat major, Opus 110, opening theme (abstract).}\]

We turn now to the B-flat Sonata, Opus 106 for the final illustrative example from Beethoven's works. Liszt's acquaintance with this sonata began when he first went to Vienna where he studied with Carl Czerny. Newman reports that Czerny hesitated to coach a ten-year-old on the 'Hammerklavier' Sonata, which, as Liszt recalled some fifty-five years later, in 1876, he had played at the time, 'very badly, no doubt, but with
passion, [and] without anyone teaching it to me.  

The sonata remained one of his favorite works. The reports of his playing it are, "in fact, about as full as for Opus 27, no. 2." One of the most important of the reports is "Berlioz's review of a Paris recital in 1836, in which occurred the first known performance of this work in public."  

Noting that he "followed the score closely," Berlioz remarks at length about Liszt's faithful rendition of the work. He assures us that "not one note was left out, not one note was added, not one change was made in the tempo that was not indicated in the editing, not one inflection, not one idea was sacrificed or diverted from its true sense." The more general comment that Berlioz makes at the beginning of his review is perhaps more significantly informative than specific details about the performance itself:

... this sublime poem that until this day was but a riddle of the sphinx for nearly all pianists. ... Liszt solved it in a way that the composer, if he could have heard it, must have trembled with pride and joy.

Recall that Beethoven was not popular in Paris at this time; in fact, Parisians looked upon him with something approaching suspicion. Opus 106 was for them a totally new, not to mention complex, modern work. Recall also that Liszt could not sometimes restrain his penchant to expand and renew while playing other composers' works. Berlioz's


88 Ibid., 195-96.

citation of numerous details as to the accuracy and authenticity of Liszt's performance assured Parisians that Liszt had indeed restrained himself. For us today, his review purports that Liszt, self-tutored and self-assured, played Beethoven's Opus 106 with consummate mastery and understanding during his formative years (as a composer) in Paris.

Moreover, his never-ending fascination with this sonata places it in a prominent position among the master's works in which he found "a perpetual commandment, an infallible revelation."90

From the numerous passages in this massive work that might have fired the imagination of the young Liszt, we extract the imbricate chain of triads, twenty in all, that descends by thirds in the Largo introduction to the Allegro risoluto (Fugue) (Ex. 23). This passage embodies in

Example 23. Beethoven, Sonata in B-flat major, Opus 106, fourth movement (Largo), Introduction to Fugue.

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90Supra, n. 64, p. 41.
Example 23. Continued.

Allegro.

Tempo I.

a tempo.

Prestissimo.

Allegro risoluto.
a context of harmonic progression the free use of mediant relationships that one finds in the construction of this sonata's tonal framework. The downward trek in thirds halts briefly three times for canonic explorations of regions that prove unsuitable as a proper entry for the home tonic and the monumental fugue that it is to bring. The canonic entrances in each of the explorations soon break into free counterpoint that works its way to the dominant of the chord with which the progression by thirds resumes, this chord being in each case the same chord that precedes the exploration. Thus, the explorations, while interruptions, do not break the consecutiveness of the progression in thirds. The halting starts, the pauses, the ever-quickening tempo in each successive canonic exchange, the intervening syncopations in the tertian ladder that progress ever-downward, all of these factors generate an atmosphere of expectancy. While the canonic passages cannot foretell that a massive fugue is in the offing, they at least presage its coming to the extent that when it finally enters it is no jolting surprise.

The five-octave rise on $f$ with which the movement begins couples with the key signature, one flat, to suggest the dominant key of the home tonic. If it is the dominant, it is minor because the triads that begin the extraordinary tertian ladder following the first fermata are $b\text{VI} (D-flat) - \text{iv} (b\text{-flat}) - b\text{II} (G\text{-flat})$ in $f$ minor. The key signature of two flats following the fermata over $G$-flat suggests the home tonic. If so, it is tonic minor in which case, $G$-flat becomes $b\text{VI}$ on which chord the first canonic excursion begins. Alluding to $b\text{II}$ at the beginning, this excursion, the briefest of the three, leads quickly back to $b\text{VI}$ on which the tertian progression continues. Upon continuing, it traverses the same region in the tonic minor that the first steps traversed in the
dominant minor, $b\text{VI}$ (G-flat) – iv (e-flat) – $b\text{II}$ (C-flat), the latter triad being spelled enharmonically as B. As a result of the enharmonic change, the key signature changes to five sharps. For the time being, Roman-numeral designations, despite the change of key signature, will continue relating to the home tonic.

Being merely a series of tonicizations of $b\text{II}$, the second canonic passage, un poco più vivace, establishes no harmonic direction. Following the fermata on $b\text{VI}_7$, the downward trek continues in thirds, but for only two steps, from $b\text{II}$ (B) to $b\text{vii}$ (g-sharp). A real beginning? The counterpoint is better worked out. A harmonic direction begins to materialize; there is even a visit to the $b\text{II}$ region (A) of g-sharp, but the clean break—not a fermata over the dominant of g-sharp, but a fermata over a rest—says, "No more, the search must continue!" At Tempo I, the second of two such designations, the search continues from g-sharp. The fact that the g-sharp on which it continues lies an octave higher than the one at the Allegro where it left off means simply that the bass must move upward in order to continue the downward trek. To have continued on down from the first g-sharp would have placed the l.h. out of range. The passage that comes between the two g-sharps assures that the ear does not perceive an octave leap. This is not a minor point, as it may appear. The motion in the first half of the tertian ladder is ever-downward, and Beethoven makes certain that the ear perceives it as such. The downward motion continues from g-sharp in steps to: E – c-sharp – A. From g-sharp onward, Roman-numeral designations relating to the home tonic discontinue because the search has led too far afield for them to have any meaning.
A major is the tenth step in the tertian ladder. The listener has no way of knowing that it is also the ladder’s midpoint, just as he has no way of knowing that B-flat is the goal of the search. Neither the home tonic triad nor the dominant triad appears as a step in the ladder as it has proceeded thus far. Beethoven scrupulously avoids them. If unfamiliar with the work, the listener, unless he follows Berlioz’s example and listens while following the score, is not aware of the key-signature changes at the beginning of the movement. Because the minor regions of home territory that occur at the outset begin a rather halting search that moves farther and farther afield, the listener will very likely perceive them more as a move away from bVI, the key in which the preceding movement ends, than as allusions to the home tonic. And because bVI is the dominant of bII, he will perhaps hear the first two canonic excursions, especially the second one, as abortive attempts to move into the bII region. The impulsive entry of g-sharp in the third excursion leads only to an abrupt rejection of it. At this midpoint, the listener is disoriented as to tonal direction, in a word, lost.

Another five-octave rise, this time on a, renews the search. The a sustains as a pedal point over which its dominant seventh enters both as a participant in the pedal point and as a descending figuration that works its way downward to begin a series of trills on rising chromatic degrees. This flourish, not very promising to begin with, leads nowhere but back to A to resume the search for the right region. Whereas the motion in the first half of the tertian ladder was ever-downward, it now reverses itself. Roots progressing now by a descending third, now by a rising sixth, divide into pairs as follows:
(A - f-sharp) - (D - b) - (G - e) - (C - a) - (F - d). Alternate major and minor triads continue as in the first half of the ladder. Theoretically, the major triads are dominants, even in the first half, but in the ever-downward unfolding of an imbricate chain of thirds, the ear does not perceive them as such. Although the progression in the second half does not break the consecutiveness of thirds, the paired arrangement evokes a succession of rising dominants mainly because each major triad sounds immediately following a leap of a sixth. The intervening minor triads sound as submediants to the chords they follow. Rising fourths in the two voices of the r.h., occurring at different times to coincide with chord changes, contribute appreciably to the overall aural effect of an upward motion in dominants. In addition, the arrangement evokes a "major" sound as it moves within one flat of the home tonic as contrasted with the "minor" sound of the first half of the ladder as it moves away from the key of the preceding movement.

The paired arrangement does not continue throughout the second half. From C onward, the l.h. descends in thirds to d from which it would progress to B-flat if it followed the usual pattern. But, alas, the powerful sweep in the r.h. carries everything with it as it surges up to the wrong chord, A major. Onrushing events dart past the home dominant, F. The compelling force of the fortissimo A major chord in the r.h. at the prestissimo precludes a progression to B-flat. Instead of descending a third from d, the l.h. yields to the r.h., its syncopated leader. Now rampant, it breaks the tertian chain and leaps to A major. Having reached fortissimo and prestissimo, the chord insists upon rights that it does not have. The full chord sounds five times in each hand in furious syncopations before expending the energy that onrushing events
build up. The shedding of its inner tones signals cognition that the chord is wrong, that is to say, the chord as an entity. One of its tones, a, the one retained, is right, the time and place are right for a climactic point, the upsurge simply jutted past the mark. The timing was not right for a climactic point on the dominant which now lies some distance back. While a continues to sound in the r.h., the l.h. descends a major third from a to f. This corrective move, an afterthought, concludes the search for the right dominant, but the listener does not know this. For all he knows, the long play on a might have turned it into a dominant, thus, the descent to f creates a suspenseful moment. Will it hold or will it descend yet another third to d? It holds and becomes an insistent dominant pedal point. Pianissimo continues across the bar-line at the Allegro risoluto. Syncopation discontinues. The octave on a in the r.h. becomes a single-note trill on a. The trill begins on the downbeat with f which remains unchanged as a low octave. The leap upward to a major third, f and a, on the second beat in the l.h. sets up a metric pattern that accentuates the offbeat entries, first of the fifth, c, and then of the full F chord, that follow. The entry of the fifth serves notice that the chord is F, not d. The crescendo that begins on the tied fifth, the shift in metric pattern that places the full chord on the downbeat, and the thunderous progression to B-flat all combine to make the decision irrevocable. In addition, the r.h. trills combine with five successive leaps in the l.h., all upward from a dominant pedal, to create the inevitability of an upward leap of a tenth, from f to a half-note trill on a, as the beginning of the fugue subject. Moreover, the successive leaps tie in with the opening themes of all of
the other movements in the sonata. Here, at last, is genuine preparation for the main event.

Preparing for the coming of a key is one thing, and in this, Beethoven is a consummate genius; leading into a mammoth fugue is another. In this, Beethoven proves himself equally masterful. Understanding the "rightness" of this introductory passage requires no mastery, only a bit of critical acumen. Its absence would create a feeling of discomfort, a feeling that something was not right if the fugue began at the Allegro risoluto without it. As it happens, the inexorable, though futile, search makes everything right. Beethoven knew this; the listener senses it; and this, after all, is the purpose of introductions.

One cannot resist a bit of irony here, albeit somewhat speculative. Presuming for the purpose of setting up the ironic situation that Hanslick did not know this introduction to be Beethoven's work, one could be reasonably certain that if he met with this selfsame passage in one of Liszt's compositions that he would have dismissed it as sheer madness. Ill-timed upsurges driving to the wrong chord, groping harmonic turns that fail to establish any direction, a seemingly endless as well as aimless chain of thirds, what else but madness! But this would be Hanslick's view. It is not madness, it is planned confusion, a kind of improvisatory approach that evidently excited Liszt's imagination. And in Liszt it was madness, trivial, Unmusik! But this, again, would be Hanslick's view. Its presence here couples with its presence in Liszt's works to justify a safe speculation that Paganini is not the sole impetus for Liszt's freely speculative approach to the composing act. We shall recall this occasion, this passage, as we encounter time
and again this kind of improvisation in the main body of the text.

Placing Opus 106 last in the discussion breaks its chronology. It assumes this position for good reasons. The discussions of Opera 57 and 110 focus upon tertian chains in development sections. Juxtaposing them creates a continuity in the discussion and facilitates making comparisons in the summarizing comments that follow momentarily. To be sure, the tertian ladder is similar to the others in some ways. It is cyclic; its first half descends; its second half evokes the effect of ascending; but here its similarities with the chains in Opera 57 and 110 end. While its arrangement suggests symmetry, it is not a symmetrical arrangement within a movement. It is an introduction though, as the description of the passage shows, not in any usual sense of the term. Its symmetry connotes other matters. Tonicizations of the ladder's steps, a procedure that the other chains have in common, would be incongruent with its underlying purpose. Its purpose eliminates any necessity for showing how it fits into the overall design of the sonata.

Showing how this happens in the other chains lends support to the proposal stated at the outset that Liszt understood the all-pervasive unifying devices in the master's works. Various viewpoints of the thematic process, in addition to being aids in conveying the meaning of the chains or the central issue, raise certain other issues that become increasingly relevant in the main body of the text. The same holds for many other factors that arise in connection with laying the foundation for the presentation of the central issue. Regarding some of these factors, Schubert bridges the gap between Beethoven and Liszt; therefore, it is best to postpone summarizing their relevance until the end of the chapter or just before the discussions of Grand
Galop chromatique (1838), the composition that begins the discussions of the unfolding of Liszt's whole-tone experiment. If we hold these factors in abeyance until this time, only a drawing together of certain points relating to the chains of thirds in Opera 10/3, 57, and 110 detains us from proceeding with the presentation of illustrative material from the works of Schubert and therewith continue on a path that leads finally to a definition of Liszt's rotating mediant.

As to the guides that led to the selection of the examples illustrating tertian chains in Beethoven's sonatas, Liszt's preferences entered as the foremost determinant. Chronology, a second consideration, superseded the first in order to include an early work, Opus 10/3 (pub. 1798), among the examples. This sonata, as we already know, did not attain a permanent position in Liszt's repertoire. Its presence in the discussions rounds out the chronology. Various stages represented by the other sonatas appearing in the discussions, the year(s) of composition, not the publication date, are as follows: 1804-05 (Opus 57), 1818-19 (Opus 106), and 1821 (Opus 110).

All of the sonatas that furnish illustrative material, Opus 10/3 included, would fall into the second of the two categories into which Liszt divides the master's works: "that in which the thought stretches, breaks, and recreates, and fashions the form and style according to its own needs and inspirations."\textsuperscript{91} While each of the sonatas is representative of the face that turns to the future, all of them together project in microcosm Beethoven's increasingly radical fashioning of form and style. The tertian chains themselves figure prominently in this

\textsuperscript{91}Supra, n. 59, p. 42.
evolutionary, not to mention revolutionary, process. The comparisons that follow orient to this point.

Sudden irruptions to $bVI$ in Opus 10/3, while forcefully announcing hitherto unheard of uses of the $bII - bVI$ region as the tonal basis for principal formal divisions, herald the beginning of an epoch-making era in the history of sonata construction. A tertian chain built on this region appears in the first movement development and recurs in the second episode of the final Rondo. The chain, occurring as it does or rather where it does in the outer movements, helps balance the symmetry of the sonata's overall design.

In the first-movement development of Opus 57, the chain expands into a symmetrically constructed cycle consisting of two sequences, one on either side of the tonic, the first descending by thirds, the second ascending by sixths. A microcosm of the exposition, the cycle reiterates thematic patterns that recur throughout the sonata while, at the same time, laying out the tonal framework of the entire structure. While not fitting into any previous mold, this development section remains within traditional formal boundaries. This is to say that it stretches the form but it does not break it, though, at times, as in the preparation for the return of the home tonic in the recapitulation, doubts arise as to whether the form can contain the power that accumulates in the upsurge.

Judging from all appearances, the tertian chain in the first-movement development of Opus 110 begins a cycle that continues in the recapitulation and culminates upon completion of the restatement of the first group. While descending and ascending as in Opus 57, this cycle ignores traditional formal boundaries in order to run its course. The
boundary separating the development from the recapitulation is there, to be sure, but the absence of a dominant preparation for the return of the home tonic plus the treatment of the first theme in this key convey the impression that the recapitulation continues the development of the first theme. But these features in themselves would not be sufficient evidence to support a proposal that a large scheme continues on past the boundary line. A deflection to the minor mode and the restatement of a different portion of the theme on each of the steps, rising thirds, that lead to the return of the home tonic sustain a development character and thereby confirm the proposal that the recapitulation of the first group is also the completion of a cycle that begins with the entry of the development section. If we fan out in either direction from the (4/3) passage in the home tonic, we see its symmetrical arrangement. The ascent that follows it balances the descent that precedes it. If we continue fanning out in either direction to the outer limits of the movement, we find that the (4/3) passage in the home tonic is not only the center of the cycle but the center of the movement as well.

Whether or not one agrees with the interpretation of the facts as presented is not crucial. This is, after all, "holy ground," and every serious musician has made his own decision about these sonatas. All the more reason for establishing an explicit frame of reference! Unanimity regarding theoretical matters would eliminate the necessity for such a detailed presentation. Interpretation of facts notwithstanding, one crucial point is that each of the sonatas fashions its form according to its own needs and that all of them together project an evolutionary process that was for Liszt an infallible revelation. If, at the same time, the sonatas were for him a perpetual commandment, it was not to
perpetuate procedures but rather to continue the evolution. His equi-
distant rotating mediants, beyond any question an evolutionary step
that links with Beethoven's diatonic tertian chains, continue the evo-
lutionary process and finally become the mutable thirds that we are to
see operating in his last works. These mutable thirds, in turn, trig-
ger a dual-purpose mechanism that links with twentieth-century proce-
dures. As we have already pointed out, Liszt scholars tend to focus
heavily upon his last works. Their doing so eliminates the necessity
for establishing explicit links with the future. Conversely, it creates
the necessity for an explicit link with the past. We may complete show-
ing this link only after examining illustrative material from the works
of Schubert and Liszt, thus the central issue of the discussion as it
has proceeded thus far joins the other factors that we are holding in
abeyance until we reach the final summary toward the end of the chap-
ter.

Schubert—The Tone Poet

Schubert's incredible ability to turn a poetic image into music
manifests his deep involvement in the German Romantic movement. The
number of years that this movement antedates the French Romantic move-
ment approximates the age difference between Schubert and Liszt; thus
the fascination with the new movement came at the same time in their
lives. The historical course of events permitted Liszt to have the
advantage of the best of two worlds. Rejected as a student at the Paris
Conservatoire, he learned from the dazzling men of genius who led the
French movement. As we have seen, he continued learning from Beethoven.
At the same time, he learned from Schubert. One sees how well he
learned his Schubert in his piano transcriptions of more than fifty of his songs, the great majority of them having been completed before 1840. His making the transcriptions in the first place connotes his recognition of how completely Schubert's piano accompaniments evoke a poetic image. These "unadorned faithful piano transcriptions," as Lang affirms, "make veritable little symphonic poems, although the text is missing, because Schubert was able to project the idea, that is the purely musical, through the image of the idea, the poem."^92

Schubert's unfailing imagination and his youthful exuberance both permeate his totally original use of all musical elements—melody, harmony and rhythm—to evoke the poetic image. If Schubert's works were for Liszt a perpetual commandment, it was to continue along these lines, which is to say that it was Schubert, the tone poet, who exerted a profound influence upon him at the time that he was formulating his own aesthetic principles. But it does not end there. While he was to make no more song transcriptions following 1846, various transcriptions and editions of Schubert's other works appear after this time, the most notable examples among them being the Fantasia in C major, Opus 15 (Wanderer) (c. 1851) and the '68 edition of selected piano works, both of which we have already mentioned. The value of these works goes beyond the impact that editing and transcribing them had on Liszt's thinking. He played them and thus became one of the prime transmitters of Schubert's genius.

Upon completing the 1868 edition, he wrote a letter to his long-time friend, Dr. Siegmund Lebert, co-founder of the Stuttgart

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Conservatoire, in which he makes some of his most revealing comments on Schubert and his works. The conspicuous absence in these comments of a certain reverence that almost always pervades Liszt's commentaries on Beethoven and his works does not imply relegating Schubert to an insignificant position. In regard to the question of influence, Beethoven occupies a preeminent position that towers above all others. He is the forest-king; therefore, one would not expect to find a critical commentary on his works such as the one on Schubert's piano pieces that appears in the letter to Lebert. Quite interestingly, the commentary raises objections that parallel Bartók's criticisms of Liszt. What is more, Liszt raises them in more or less the same frame of reference. Liszt deplores the lack of general acceptance of Schubert's piano pieces. A sincere desire to remedy this situation probably motivated him to make the edition in the first place. His objections come by way of explaining this deplorable situation. Noting that "our pianists scarcely realize what a glorious treasure they have in Schubert's pianoforte compositions," Liszt explains:

> It is true that Schubert himself is somewhat to blame for the very unsatisfactory manner in which his admirable pianoforte pieces are treated. He was too immoderately productive, wrote incessantly, mixing insignificant with important things, grand things with mediocre work, paid no heed to criticism, and always soared on his wings.

This brief critique explains, among other things, the presence of various readings in his edition of Schubert's piano pieces and, moreover, why he considered them "tolerably appropriate." Liszt's reverence for Beethoven, to continue in the same vein, explains the absence

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95 Loc. cit.
of similar critiques among his comments on the older master's works as well as the absence of various readings in his edition of Beethoven's piano sonatas which, "by nineteenth-century standards, . . . was a virtual Urtext edition."96

A somewhat effusive tribute to Schubert follows the critique in the letter to Lebert. This soaring eulogy, an abrupt modulation to romantic rhetoric, points up the side of Schubert that never ceased evoking Liszt's deep admiration. This would be the romantic side of Schubert, the tone poet, who evokes the spirit of the German Romantic movement in ways that we do not find in Beethoven's works. Despite the possibility that it might raise supercilious brows, the way in which Liszt chooses to express his tribute is perhaps as good a way as any to speak of the ineffable mysteries surrounding the spirit of the new movement. While Liszt upon occasion lapses into romantic flourishes when speaking of Beethoven, one cannot imagine that he could be referring to the older master in this tribute to Schubert:

O never-resting, ever-welling genius, full of tenderness! O my cherished Hero of the Heaven of Youth! Harmony, freshness, power, grace, dreamings, passions, soothings, tears and flames pour forth from the depths and heights of thy soul, and thou makest us almost forget the greatness of thine excellence in the fascination of thy spirit!97

The results of Schubert's fascination with the new movement pointed the way for a solution to the dilemma in which the romantic composers found themselves in the face of the Beethoven phenomenon. While Tovey, as we have observed, sardonically repudiates any connection

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between Liszt and Schubert, he can assert with an air of positivism that "upon Brahms the influence of Schubert is far greater than the combined influences of Bach and Beethoven."98 Although, to be sure, he does not discount altogether Beethoven's influence upon Brahms, he explains his assertion by pointing to "the blindness which, following the lead of Hanslick, ascribes Brahms's forms mainly to the direct influence of the last quartets of Beethoven."99 Could it be that Tovey himself followed Hanslick's lead in his rejection of Liszt? This is a possibility, but it is more likely that his rejection of Liszt stems from his own conservative attitudes. Apparently the mainstream, in his opinion, is a continuation of tried and true forms in which the tonal kaleidoscope may expand only so far. It is not adapting tradition to create something new; it does not entertain the possibility that the disintegration of tonality came from within. But this would be from Schubert onward. He recognizes these qualities in Schubert as evidenced by his total acceptance of Schubert's innovative harmony and his awareness that "Schubert's defects are often half-way towards the qualities of new art-forms."100

Despite his recognition of the impetus, he does not permit the mainstream to flow into new regions. It must remain within certain boundaries. Thus, Tovey's conservatism, Hanslick notwithstanding, aligns more comfortably with Brahms.

Tovey's view of Schubert's influence, while myopic, is valid. It enters the present discussion as a rare piece of evidence supporting the virtually unexplored thesis that Schubert stands as a vital link

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between Beethoven and the romantic generation. The linkage does not take the form of a lineage in a chronological sense. It is the result rather of a fascination with the spirit of the romantic movement that comes at different times under varying circumstances in the lives of the composers who came under its spell.

These introductory comments come by way of establishing a frame of reference for the presentation of a few carefully selected examples from Schubert's works that will show how he stands as a link between Beethoven and Liszt. The central issue of the chapter as a whole—mediant relationships—limits the scope of the musical evidence. The first example, "Grenzen der Menschheit" (1821), a song on a text by Goethe, clearly demonstrates Schubert's thorough assimilation of Beethoven's harmonic system to serve his own inspirations. To be more specific, this song illustrates the complete freedom with which he explores the $bII - bVI$ region in a major key. The final example, "Aus 'Heliopolis' II" (1822), shows, among other details, a chain of all-major-but-one triads that stands squarely between Beethoven's tertian chains and Liszt's rotating mediants. The examples in between show other freedoms in Schubert's use of mediant relationships that foreshadow certain externalizations in Liszt's style.

A non-tonic beginning, the six-measure opening phrase of "Grenzen der Menschheit" ('"The Cycle of Humanity") lines out the $bII - bVI$ region in thirds and culminates in a $bII - \frac{b6}{4} - V$ cadence. The articulation points in the phrase fall upon $bVI - iv - bII$, each point being forcefully accented with double forte sforzandi. Not a tonic, the root-position $e$ minor triad in measure 4, because of its position in the sequence, sounds as a minor dominant of $iv$, just as $G (bIII)$ in measure
2 sounds as a dominant to the VI that it follows. The tonic six-four in measure 6 sounds convincingly as a minor tonic because of its position in the cadence formula. Although far from a key-confirming phrase, the opening six measures sound convincingly in e.

The tonic triad, now major, now minor, begins to take on more meaning as a center in measures 10-32. Five measures on the dominant (mm. 12-16), at the beginning of this passage counterbalance five measures on the subdominant (mm. 28-32) at the end of the passage. The first root-position tonic major triad in the song (m. 16), despite its following five bars of dominant "preparation," could itself be a dominant. The ambiguity of its function results from its coming on an unaccented beat and progressing to A which holds for a full measure. This deceptive tonicization of A leads into a V - I cadence in E. But this is only a partial confirmation of the key. The purpose of the first thirty-two measures goes beyond establishing a key center; they also set the tonal poise of the entire song and, to some extent, foretell its tonal framework. Doing all this entails descending again in thirds, but not in the striking manner of the opening phrase and not again on the minor side of the tonal spectrum. This time, the descent is on the major side. As opposed to the forceful dynamic accents on the points of articulation in the opening phrase, multiple tonicizations bring the points of articulation to the attention of the listener in this descent.

Upon repeating the four-measure phrase of partial confirmation (mm. 17-20), Schubert chooses not to repeat the V - I cadence. Instead, he leaves the tonic region by progressing down a third from the dominant to G-sharp (III) (m. 25) which then functions as the V of c-sharp (VI). Three successive tonicizations of c-sharp establish this chord as an
articulation point. They also set up a rhythmic pattern for the five tonicizations of A (IV) which follow thereupon. Now that Schubert has accented the bII - bVI region and centered the tonic between the dominant and another tertian descent to the subdominant on the major side of the tonal spectrum, he is ready to fully confirm E. A superficial filling-in of the tonal regions in the rest of the song will give some insight into how the first thirty-two measures foretell its tonal framework.

Example 24. Schubert, "Grenzen der Menschheit" (1821), measures 1-32.
The sixteen measures that follow the excerpted example from "Grenzen der Menschheit," unlike the rest of the song, are not saturated with accidentals. They constitute the only example in the song of a firmly-established E major key in a traditional sense. From E, Schubert proceeds to bVI and then on to bII as keys for the sections that follow. At least, the following sections cadence in these keys. Passages leading up to the cadences vacillate freely between the major and minor modes, a procedure that is totally congruent with the tonal poise as set in the now minor-now major cycles in the first thirty-two measures of the song. The modal vacillations entail the use of a proliferation of accidentals in a key signature that does not change from four sharps in the entire song. The material in measures 17-32 returns as the final section. The return, while not altogether literal, rounds out the form. In another sense, it completes a cycle, there having been a full exploration of the bII - bVI region therein. The cycle explores the outer boundaries of this region. It ends with two cadences. The first, a traditional V7 - I cadence insofar as these chords connote traditional usage, coincides with the end of the voice part. The second, a not-so-traditional IV - iv6 - I cadence, a quiet musical epilogue in the piano part, concludes the song.

Schubert's Impromptu in A-flat major, Opus 90, No. 4, illustrates another kind of minor beginning for a composition in a major key. It begins with a descending arpeggiated figure in the tonic minor (Ex. 25) in a (two / two) / two phrase pattern. The pattern repeats, first in C-flat (bIII) and then in b (bii), before it enters in A-flat in measure 31 (Ex. 26). The illustrative example extends backward eight measures to show the sequential entry into A-flat. The appearance of
A-flat, because of the preparation that leads up to it, is a refreshing moment. More significant, it is a typical Schubertian sound. No one who knows anything about Schubert can imagine that he could have begun this piece on the downbeat of measure 31. Réti offers convincing evidence that the opening measures generate the principal themes of the work.


Example 26. Schubert, Impromptu in A-flat major, Opus 90, No. 4, measures 23–35.
Example 27. Schubert, Impromptu in A-flat major, Opus 90, No. 4, measures 46-50.

![Musical notation image]

These opening measures, in Réti's opinion, generate basic shapes, specifically, the rising fourth and the rising sixth in the principal theme (Ex. 27). He explains his claim as follows:

... we witness a thematic evolution within the opening section itself: a shape centered on a rise of a fourth [m. 5] is developed and finally transformed into a shape culminating in a rise of a sixth [m. 23], the whole process producing, in fact, one long theme.101

As to the implications that the opening section has for the overall tonal framework of the Impromptu, the turn to the minor subdominant key for the Trio undoubtedly ties in with its minor beginning. This brings up a point that differs with "Grenzen der Menschheit." While the exploration of the minor side of the tonal spectrum in the Impromptu does not extend to its outer limits as it does in "Grenzen der Menschheit," the song does not explore the minor subdominant.

Pointing out this difference shows, in small measure, the infinite variety of Schubert's key-schemes. While his affinities with Beethoven's harmonic system are rather obvious, one cannot find in Schubert's works a pattern of development such as we have seen in the chronological evolution in connection with Beethoven's tertian chains. Schubert's style evolves, to be sure. He extends Beethoven's relationships

somewhat and, most significantly, compresses them into an incredibly short time-span, such compressions being more prevalent in his songs and short piano pieces. An imaginative array of procedures—all of the factors one has in mind when referring to his handling of materials—enters to make his relationships eminently credible. The remaining examples do little more than sample a vast treasure.


The turn to G (♭VI) in Schubert's "Nacht und Träume" (Ex. 28) illustrates a use of the ♭VI region that inspired not only Liszt but many of the other Romantic composers as well. The "coloristic" factor outweighs theoretical exigencies in this usage, though it is difficult to separate the two factors. In any case, a vast exploration is certainly not the purpose in this example. The turn to G (♭VI) comes at
the midpoint in "Nacht und Träume" as the only diversion from B major in the song's very slow-moving twenty-nine measures. The turn is direct, i.e., without preparation. From G (bVI), Schubert progresses to C (bII) and back again to G to return to B.

In the second version of "Der Musensohn," Schubert alternates G (I) and B (III) in an A B A B A formal scheme as follows: G B G B G. Each of the sections contains approximately twenty measures. Alternating tonic and dominant harmonies predominate in each of the sections that move, without preparation, one into the other. The following example begins with the concluding bars of the first section in G (I) in order to show the transition to B (III) (m. 30).


The opening measures of "Ganymed" (Ex. 30) begin an alternation of tonic and dominant harmony in the key of A-flat that continues virtually uninterrupted for eighteen measures. This opening section is
somewhat analogous to the second section in "Grenzen der Menschheit" in the sense that it establishes the home key as a tonal mooring for an extensive exploration of the minor side of the tonal spectrum. There are significant differences between the explorations. "Grenzen der Menschheit" completes a cycle as evidenced in the return of material in the home key. The home key does not appear again in "Ganymed" after the eighteenth measure. The song ends in F (VI) (Ex. 31) following a tonal exploration that includes C-flat (♭III), E (♭VI), and A (♭II).

Example 30. Schubert, "Ganymed," measures 1-5.

Example 31. Schubert, "Ganymed," from measure 113 through the final cadence.

"Aus 'Heliopolis' II" begins in c minor and ends in C major. The only cadence in the tonic minor in the entire song marks the conclusion of the three-measure piano introduction to the voice part (Ex. 32).

The first half of the song cadences in C. The cadences leading up to the midpoint fall upon A-flat (bVI), g (v), and e (iii). The cadence in e deflects to the major mode for the conclusion of the first half of the song. The approach to the final cadence in the major mode (Ex. 33) gives some insight into the innovative harmonies that characterize the last half of the song. The excerpted passage shows consecutive chromatic major–minor sevenths in the first inversion working toward a cadence in the tonic major (mm. 46-47). The chromatic rise pauses at its midpoint to emphasize the dominant (m. 42). The cadence in C (mm. 46-47) elides with the beginning of a descending tertian chain of all-major-but-one root-position triads: C-A-F-d-B-G7. The harmonic goal of the chain is the dominant seventh, or, in a broader sense, another cadence in the tonic major (mm. 51-52). This cadence elides to begin a repetition of the chain, not shown in the example, which leads to the final cadence in C major.

A few harmonic facts possibly explain the presence of the single minor triad in the tertian chain. A and B, the one a third below the tonic, the other a third above the dominant, are the only triads in the chain that are not common in C major. The roots of all the triads fall upon diatonic degrees in C. The chain by-passes the dominant as it
traverses the tonic octave. Any allusion to the dominant within the octave would anticipate its final goal. In the key of C, a D major triad alludes strongly to the dominant. The use of d minor in the chain precludes this allusion and permits the continuation of the progression with no conflicting tendency tones, specifically f-sharp, pulling in the opposite direction. Upon reaching the dominant, the listener readily accepts it as the goal despite the rather unusual harmonic course of events that the chain follows.

This tertian chain, while an isolated example of Schubert’s handling of materials, symbolizes in a context of harmonic progression the wide scope of his use of mediant relationships. Liszt thoroughly understood this usage. Whether or not he knew this particular progression is of no special importance. Its significance lies in its being a natural by-product of Schubert’s tonal thinking. The fact that it ties in so closely with Liszt’s rotating mediants stands as proof of a connection, to be sure, but the value of the proof transcends obvious similarities and relates more to a concept of handling musical materials. In this piece, Schubert moves from minor to major. His totally original approach to the final cadence stands as only one example out of many that captured Liszt’s imagination. We shall have occasion to observe a strikingly similar approach in the discussion of Liszt’s rotating mediants.

Liszt’s Rotating Mediants

Liszt’s rotating-mediant idea emerges, along with whole-tone sound, out of his concept of equidistance. The purpose of the present discussion is not to show the idea from nascency to maturity but rather
to work toward a complete definition of the idea as we are to encounter it in the unfolding of developments in the first phase of the evolution of the whole-tone idea. The definition also completes the accumulation of evidence necessary for drawing comparisons with the tertian chains that we have observed in the works of Beethoven and Schubert.

The excerpted passages that serve as illustrative examples for the analytical discussions show the rotating-mediant idea as a mature device before it sheds its chordal encumbrances. Thus, from a standpoint of chronology, the discussions parallel the forthcoming discussion of the first phase of the evolution of the whole-tone idea. In fact, the final example in each discussion comes from the same composition, Variations on a motive by Bach, Weinen, Klagen, Sorgen, Zagen (1862). With one exception, the opening measures of Sonetto 104 del Petrarca, all of the excerpted passages show rotating mediants in descending chains of root-position major triads. It happens, moreover, that each of them appears in an approach to a final cadence in a composition that begins in minor and ends in major. One of our main points of interest centers upon how Liszt mixes major and minor elements in these cadences. And if one particular harmonic factor rises above the others in importance, it is the use of the subdominant. Our present purpose, to point out details in an effort to define the rotating-mediant idea, does not entail relating the excerpted passages to the overall tonal framework in which they operate. At least, it does not require lengthy discussions with accompanying illustrative examples.

The use of both versions of Liszt's Tarantella stands as the only exception in the entire study to a strict adherence to the final, authentic versions of his piano works as the source for illustrative
material. The earlier version, *Tarantelles napolitaines* (c. 1840) (Ex. 34) shows that the rotating-median idea appears in Liszt's thinking.

Example 34. Liszt, *Tarantelles napolitaines* (c. 1840), final measures.
Example 35. Liszt, *Tarantella* (1859), final measures.

almost at the outset, something over a decade before Liszt himself admitted that his "style [was] adequate to the thought." An almost playful

102 Supra, n. 42, p. 23.
mixture of major and minor elements underlies the thought in both versions, but the treatment of the Neapolitan and its relatives is quite different in the later version in which we see Liszt, the mature composer, at work. Principal differences come in the passages that precede and follow the rotating mediants (bracketed in examples 34 and 35).

A significant point to note, the reason for citing the earlier version in the first place, is that the rotating mediants themselves remain virtually the same, the differences being in details, not in the basic progression itself. The progression consists of tonicized points of articulation on I (G) – VI (E) – IV (C) – bII (A-flat), all of which fall on downbeats. Tonicizing chords, in each instance, a major triad functioning as a dominant, fall on weak beats. All of the triads are in root position. In the final version, the number of consecutive root-position triads in the progression and the repetitions thereafter adds up to a total of twenty-five, thirty-four, if we include the tonic-dominant alternations in the passage immediately preceding the rotating mediants. Tripled roots on the points of articulation and quadrupled roots in the tonicizing chords, to say the least, rather powerfully emphasize the root-position status of all the chords. This emphasis is particularly striking in the case of the Neapolitan because it accentuates the tritone relationship between it and the dominant which follows.

While the rotating mediants remain virtually the same in the final version (and this is our chief point of interest) it is not irrelevant to point out that the deft mixing of major and minor elements in the final version is more skillful and thereby more convincing as a final cadence. The mixture of major and minor elements harks back to the fact that the main body of the Tarantella is in g minor. Whereas
the original version (Ex. 34) recalls numerous minor connections, emphasis centers upon the Neapolitan in the final version (Ex. 35). A cadenza-like passage on the Neapolitan, a totally new addition, contains the same descending line that appears later in the rotating mediants in octaves in the r.h. Powerful V - I progressions replace the alternate iv - I, V - I progressions as a way of confirming the tonic before entering the rotating-median passage. A well-paced cadence in augmentation concludes the dazzling swirl of rotating mediants. This cadence, a striking use of the Neapolitan chord between the major subdominant and the dominant, replaces the rather awkward pause on bVI (E-flat) that trails off to bIII (E-flat) in the earlier version. A chord common to the bII - bVI region, the minor subdominant, precedes the final repetitions on the tonic that bring the piece to its conclusion. This is a iv - I cadence only in the narrowest theoretical sense.

One must go back at least as far as the cadenza-like passage on the Neapolitan to understand the use of the minor subdominant as the penultimate chord. What happens from this point onward forcibly asserts G, not as a major key in a closed diatonic circuit, but as a tonic region that embraces both major and minor elements. The rotating mediants keep tonal circuits open because the ear, sluggish in its ability to separate musical meanings, cannot perceive a harmonic direction in this rapid series of tonicizations. The cadence in augmentation permits sufficient time for the ear to perceive its meaning and possibly even, in retrospect, to perceive it as an inevitable culmination of the series of tonicizations that rotate repeatedly from the tonic down to the Neapolitan. The six-measure play on the tonic that follows thereupon, while scrupulously avoiding key-affirming chords in the classical sense,
reaffirms G as the tonic region. A dominant at this point, besides being superfluous, would narrow the scope of the region. A single, deft touch upon the minor subdominant completes it.

We have observed that the dominant key yields to mediant in the works of Beethoven and Schubert. We have observed, moreover, that the subdominant key, minor as well as major, tends to become more prominent as the dominant yields its time-honored position in the hierarchy of tonal materials. The final cadences illustrating Liszt's rotating-median idea, the one in the Tarantella as well as the others that are to follow, provide evidence that Liszt continues this trend. While he finally dispenses with the dominant even as a tonicizing agent, he retains it in this capacity in his earlier works, but not, as a general rule, in final cadences. If, as in the Tarantella, the dominant appears, it is not often the penultimate chord. The dominant as the penultimate chord appears in less than twenty per cent of his compositions. The great variety in Liszt's final cadences relates to the fact that they summarize the tonal poise of entire compositions.

Hungarian Rhapsody XII (1853), like the Tarantella, also moves from minor to a conclusion in major, the move in the Rhapsody being from c-sharp to D-flat. The Rhapsody furnishes another example of rotating mediants in the approach to a final cadence involving the subdominant. In a broad sense, it is strikingly similar to the approach in the Tarantella. As to the handling of details, there is a wide difference between the two compositions. Rotating mediants in both compositions move from the tonic down to the Neapolitan. Articulation points in both are root-position major triads. The principal chords move directly from one to another without tonicizations in the Rhapsody. In addition, the
Example 36. Liszt, Hungarian Rhapsody XII (1853), measures 266-85.

basic progression differs. As opposed to I (G) – VI (E) – IV (C) –
bII (A-flat) in the Tarantella, the rotating mediants in the Rhapsody
fall upon I (D-flat) – bIV (A) – III (F) – bII (D). The roots of the
triads fall upon the beat in the descending chromatic octaves in the l.h.
(Ex. 36). These thunderous octaves contrast with leaps involving chords
in the r.h., the one delineating the rotations with repeated descents
from the tonic down to bII, the other preceding in a continual jagged
rise that finally spans an octave plus a tritone. The rotations in the
Rhapsody do not culminate in a cadence as in the Tarantella. The
excerpted passage does not include the first two rotations. Beginning
with the third rotation, it shows the tertian ladder continuing down­
ward from $\text{bII (D)}$ by way of moving to $E$ ($\text{bIII}$). Counting from D-flat
(m. 266) down to and including E (m. 269), the ladder extends to seven
steps.

The move to E begins a summary of some of the Rhapsody's principal
themes in the keys in which they occur in the main body of the piece.
This summary calls to mind Beethoven's bringing in the opening themes of
the previous movements at the beginning of the final movements of his
A major Piano Sonata, Opus 101, and his Ninth Symphony. The theme at the
Adagio, our main point of interest, harks back to the opening measures of
the Rhapsody where it appears in open octaves. Here, it appears in the
minor subdominant. The restatement of the opening theme in the minor
subdominant precedes the tonic-dominant exchange at the Presto; the
major subdominant follows the exchange as the penultimate chord in a VI -
I final cadence. The next example illustrates a much bolder use of the
major subdominant in yet another piece that begins in minor and changes
to the major mode for its conclusion.

The approach to the final cadence of the Variations on a motive
by Bach, *Weinen, Klagen, Sorgen, Zagen* (1862), dwells upon the major sub­
dominant at such length that doubts arise as to its function, the ques­
tion being whether it is a subdominant or a tonic. Whereas rotating
mediants traverse the tonic octave in all of the foregoing examples,
here (Ex. 37), they traverse the subdominant octave. Articulation
points, beginning in the measure following the Quasi Allegro, fall upon
Example 37. Liszt, Variations on a motive by Bach, Weinen, Klagen, Sorgen, Zagen (1862), final measures.

downbeats on the following major triads: B-flat (IV) - G-flat (bII) - D (VI) - B-flat. Ascending octaves in the l.h. divide into four segments, each segment being the top tetrachord of the major keys in the
sequence. Strong tonicizations, in each instance, the $V - V^4/V - V^6$, precede each of the principal chords in the sequence. This harmonization creates the possibility of a chromatic line. Such a line appears in descending octaves in the r.h.

The tonic, F, turns into a dominant and resolves to B-flat at the fermata. Tonal ambiguity continues at the a tempo at which time the tonic begins to behave as though it were a dominant preparation leading into B-flat. As a part of this deception, the subdominant triad falls upon the downbeats in the passage that culminates in a two-bar tremolo in the r.h. Upon reaching the tremolo, the B-flat triad finally attains root-position status. Despite the rhythmic accents in the dramatic rise on the subdominant, B-flat does not materialize as a tonic because there is no e-flat in the passage. Nonetheless, the continued emphasis upon the subdominant builds in a certain ambiguity. F major comes forth as an unquestionable tonic only in the final seven measures of the piece.

As stated at the outset, the discussion of rotating mediants does not go beyond 1862, the date of composition of Weinen, Klagen, Sorgen, Zagen. The examples illustrating rotating mediants in various approaches to final cadences have followed a strict chronology. We now turn back in time for an example that illustrates rotating mediants appearing in the opening measures of a composition.

A diminished seventh, $b\# - d\# - f\# - a$, guides the tertian progression in the opening measures of Liszt's Sonetto 104 del Petrarca (after 1846) (Ex. 39), the points of articulation being major-minor sevenths in second inversion. The selfsame diminished seventh that guides the progression precedes each point of articulation. The immediate goal of the rising sevenths, the dominant seventh with a major
ninth appoggiatura at the Adagio, contains three tones of the same diminished seventh. The chord at the fermata, a major-minor seventh on g-sharp (III) with a minor ninth appoggiatura, contains all four of its tones. In short, this diminished seventh permeates the opening measures of this piece. In addition to the excerpt from the score, we include an abstraction of the progression to facilitate showing how this happens.

Example 38. Liszt, Sonetto 104 del Petrarca, abstraction of the progression of sevenths in measures 1-4.

Example 39. Liszt, Sonetto del Petrarca (after 1846), measures 1-16.
The graphic abstraction (Ex. 38) shows the rising sevenths in measures 1-4 as a tertian ladder. Roots, underlined capital letters with an accompanying sharp or flat where necessary, outline the diminished seventh chord that guides the progression. Any given pitch in this arrangement becomes a chord member a third below its position in the previous chord. Thus, as an example, G introduced into the progression as a seventh, becomes successively a fifth and a third. Upon reaching its turn to become a root, it descends a semitone, as indicated by the down-pointing arrow in the example.

The following succession of pitches includes all of the pitches appearing in the progression of sevenths in the opening measures of the
Sonetto:

\[ b\# - c\# - d\# - e - f\# - g - a - b\] 

We may point out in passing that this succession of pitches constitutes an octatonic scale, the selfsame scale on which Scriabin bases his Prelude, Opus 74, No. 3. In Liszt's Sonetto it is the bass-line of the tertian ladder. Later, we shall discuss another way of subdividing the pitches. Here, as indicated by the lines and brackets, we think of the scalar formation as a juxtaposition of two diminished seventh chords. They appear juxtaposed between the sevenths built on F-sharp at the top of the ladder. The one connected by the bottom line shows the succession of fifths of the major-minor sevenths in \( \frac{4}{3} \) position. The one connected by the top line, as already pointed out, comes between each of the major-minor sevenths in the tertian ladder, the only common tone between it and the seventh chord that follows being, in each instance, the tone that becomes the root of the seventh chord that follows. Tying this common tone across the bar-line at the beginning of the progression establishes a syncopation that continues throughout the rise as it gathers momentum. Upper neighboring tones follow the beginning syncopations, thus the handling of non-harmonic tones joins with rhythm to bring the roots of the sevenths to the fore. These factors, in turn, join forces with accented octaves in the r.h., in each case, the third of a seventh chord, to delineate the ladder as illustrated in example 38.

A tight construction permeated by the diminished seventh, \( b\# - d\# - f\# - a \), prepares for the coming of a tonic region that is free of
certain ties with the classical system. The ear readily accepts E as the tonic region (m. 7) because of its having been preceded by six measures built upon one of its chief tonicizing agents, a fully diminished seventh constructed on its seventh degree. The fact that this chord also tonicizes other regions expands the scope of the home region, but it does not expand it beyond the boundaries where recognition of the tonic region becomes impossible. The only other region besides E that enters as an option is c-sharp (vi). While it becomes a prominent participant in the harmony of the Sonetto, the handling of materials establishes E as the tonic region. We may explain how this happens by pursuing certain points relating to the octatonic scale.

Alternating whole- and semi-tones in the octatonic scale subdivide into various symmetrical groupings. Two of these become increasingly important in the evolution of Liszt's style, the one being the filling-in of the minor third, the other being the filling-in of the major third, or, as it appears below, the diminished fourth:

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b^ - c# - d# - e - f# - g - a - b^b
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The top line joins a series of minor thirds, each being filled in with a semi- and whole-tone. The bottom line conjoins disjunctly two major thirds, each being filled in with a whole-tone with a semi-tone on either side. It is the chromatic interaction between the two groupings that plays a vital role in the construction of the Sonetto's harmony. Chromatic inflections, now to one, now to the other, create a harmony in which melodic exigencies supersede diatonic exigencies as a determinant for chordal formations. While many steps removed from the sophisticated
device that it finally becomes in Liszt's late works, one sees, even at
this early date, the origin of the expanding-contracting mechanism we
are to observe in Unstern. The most obvious evidence of its presence
in the Sonetto is the augmented triad. In this connection, it is of
interest to observe that the tonic triad expands to an augmented triad
at the beginning of the main theme (mm. 7-8). This expansion, because
the melodic tendency is upward, comes about through the use of a sharped
fifth degree. The augmented triad, a prominent participant in the final
cadence of the Sonetto, contracts. This is to say that the melodic ten-
dency is downward. To be more explicit, the flatted sixth recurs repeat-
edly as an upper neighbor of the fifth degree in the extension follow-
ing the V - I cadence at the Adagio in example 40. The flatted sixth
returns in the penultimate chord.

Example 40. Liszt, Sonetto 104 del Petrarca, final measures.
In a broad sense, chromatic interaction in the *Sonetto* creates an E major that has only tenuous connections with the classical system. It is an E major in which chords, not entire tonal regions as in Schubert's "Grenzen der Menschheit," vacillate freely now to the major, now to the minor side of the tonal spectrum. To the extent that polarization or centering occurs in this piece, the polarization points fall upon the third and sixth degrees. Major or minor triads, sometimes sevenths or ninths, built on these degrees, either natural or flatted, recur throughout the piece in the manner shown in the first sixteen measures (Ex. 39). Note particularly the tritone relationship of the chords immediately following the augmented triads, the first in measure 9 (c-sharp, vi), the second in measure 13 (G, VII). This relationship tends to nullify c-sharp (vi) as a tonic. Up to this point, the listener cannot be certain of its role. The V7 - I cadence in E (mm. 13-14), the first such cadence in the piece, removes any lingering doubts regarding E as the tonic region. The listener knows at last how the tonal options...
opened up by the introductory tertian ladder are to function. E, sometimes e, is to center between ever-changing third and sixth degrees.

It is rather self-evident that E is not to be a centripetal center between strong gravitational poles as in the classical concept of tonality. As opposed to the key-affirming powers of the traditional polarities in the classical concept, poles based upon mediant relationships possess no such power, especially when, as in the Sonetto, they tend to blend into the tonic region. The blending of tonal regions brings into prominence "weak" chords, iii (g-sharp) and vi (c-sharp) and "weak" cadences. Note particularly the prominence of ii (f-sharp) in the approach to the final cadence. But these are weaknesses only if one imposes classical precepts. This is harmony in transition many steps removed from the classical system. It is typical of Liszt's early period. This discussion of mediant relationships as a whole traces some of the evolutionary steps that led to Liszt's harmonic system. More specifically, it establishes a rather explicit beginning point for his compositional experience. The summary that follows, while drawing together some of the important points brought out in the discussion, looks forward to the unfolding of Liszt's whole-tone experiment.

Summary

Bartók, as we shall recall, explains that influence has nothing to do with imitation. Stravinsky explains why:

"... the borrowing of a method has nothing to do with observing a tradition. 'A method is replaced: a tradition is carried forward in order to produce something new.' Tradition

103 Supra, p. 14, n. 22.
This discussion of mediant relationships focuses primarily upon chains of common chords that progress by thirds in the works of Beethoven, Schubert, and Liszt. The illustrative examples document a narrow path of discovery which, as a whole, stands as an example of what Stravinsky refers to as the continuity of creation. Several issues enter to widen the scope of the presentation of the central issue. Two of them tower above the others in importance: 1) the thematic process in Beethoven's sonatas and 2) adjustments in the traditional concept of a tonic as the centripetal center between the dominant and subdominant. Overall, the analytical discussions show a move away from mediants that behave according to the laws of Beethoven's expanded diatonic system to mediants that behave according to laws emanating out of Liszt's concept of equidistance.

One sees and understands the adaptation of a tradition to create something new and different when vestiges of traditional usage are still visible (audible). Rotating mediants, a significant adaptation in the history of the language, do not shed the last vestiges of traditional usage in Liszt's works until after 1860. For as long as the rotating-median idea continues to appear as tertian chains, certain features show their connections with the past. These connections provide the points of comparison in the summary of the shift to equidistance. From the common ground provided by each point, the comparisons splinter off to summarize specific differences in the construction of the chains in the composers' works as they relate to each point.

104 poetics of Music, p. 59.
The articulation points in all of the tertian chains fall upon common chords, usually triads in root position. At least, the triads attain root-position status at the points of articulation. Liszt's *Sonetto 104 del Petrarca* in which the principal chords in its introductory tertian ladder are major-minor sevenths is an exceptional example. Liszt's shifting to chords all the same quality in his rotating mediants is perhaps the most conspicuous evidence of his moving away from diatonicism. The chain of all-major-but-one triads in Schubert's "Aus 'Heliopolis' II" stands squarely between Beethoven's diatonic tertian chains and Liszt's rotating mediants.

The tertian chains progress downward in a majority of the examples, the rising thirds in the *Sonetto* being an exception. The tertian cycles in Beethoven's development sections counterbalance descending thirds with rising sixths. The distance between the roots of the principal chords in these cycles alternates from major to minor thirds, or, in the case of the last half of the cycles, from major to minor sixths. The roots in Schubert's chains also fall upon diatonic degrees of the scale in which they occur. This holds true even in the "Aus 'Heliopolis' II" chain despite its extraordinary use of major triads. The roots of the chords in rotating mediants are equidistant, either major or minor thirds. As to the overall distance traversed by the chains, diatonic mediants divide the fifth, rotating mediants divide the octave. Moreover, they scrupulously avoid the dominant chord. In regard to this point, "Aus 'Heliopolis' II" stands closer to Liszt than to Beethoven. Its chain by-passes the dominant as it traverses the tonic octave. As it continues downward, it becomes clear that the dominant is, after all, the goal of the progression, a goal which, as already pointed out, is
not common in rotating mediants. Indeed, the center of the octave comes to the fore in rotating mediants in which the diminished seventh guides the progression.

Tonicizations of the principal chords, a common practice in Beethoven's tertian chains, may or may not appear in the progressions of Schubert and Liszt. If they appear in rotating mediants, they are often single chords as in Liszt's *Tarantella*. The single-chord tonicizations in this piece contrast sharply with the four-measure tonicizations in Beethoven's Opus 10/3 (first movement). The mention of harmonic elaboration in connection with tertian sequences impinges upon a point of comparison that must be held in abeyance. While some of the examples of rotating mediants in the present discussion are sequential, not one of them is typical of the Lisztian sequence in which the segments run to lengths comparable to some of the sequences we have observed in Beethoven's works. We shall have occasion to observe a sequence in which the segments are of comparable length in the opening measures of the Dante Sonata.

Beethoven reveals his predilection for the $\text{VII} - \text{VI}$ region in his tertian chains, the mode of the home tonic notwithstanding. This region also figures prominently in Schubert's chains as evidenced in the opening bars of "Grenzen der Menschheit." Two of the illustrative examples from Liszt's works, *Tarantella* and Hungarian Rhapsody XII, rotate repeatedly from the tonic down to $\text{VII}$. Although these examples are several steps removed from a typical progression involving the Neapolitan in the works of Beethoven and Schubert, their moving down to $\text{VII}$ betrays close ties with prototypes in the works of the older masters. While Beethoven continues to use the Neapolitan in the traditional way
(N₆ - i₇ - V₇ - i), his Opus 10/3 sonata shows that it attained root-position status in his early works. Thus it is not only the move down to the Neapolitan that betrays close ties but also the fact that the chord is in root position. If we view all of the examples of rotating mediants with this point in mind, the Tarantella example stands closest to Beethoven for the reasons already mentioned plus the fact that its rotations culminate in a bII – V – I cadence. The rotations in Hungarian Rhapsody XII, on the other hand, are a step further removed because they do not culminate in a cadence. Upon reaching the Neapolitan in the final rotation, the progression continues downward in thirds by way of reaching a new key.

Thus far in the summary, we have confined comparisons to harmonic details in the tertian chains themselves. Similarities brought out by the comparisons show the kinship of the three composers under consideration. Differences show a move toward equidistance. We now move to comparisons on a broader level to summarize differences in regard to the question of how the tertian chains function in the works of the three composers. The development section of the first movement of Beethoven's Opus 57 suffices as the early point of reference for these comparisons.

The tonicized regions in this development section line out the tonal framework of the entire sonata. With two exceptions, e and G-flat, or the Neapolitan formations at the outer limits of the symmetrically arranged sequences, these regions reappear as massive tonal pillars in the principal formal sections of the sonata, each being the principal region for a section. The tertian chains in the development section, as it were, set the tonal mold. Rotating mediants operate in a different
mold in different ways. The examples presented during the course of this discussion show them operating in two situations: 1) in the opening measures of a composition and 2) in the approach to final cadences. The one sets up a tonal option, the other keeps tonal options open.

The tertian ladder in the opening measures of Liszt's *Sonetto 104 del Petrarca* sets up a tonal option. The ear accepts $e$ as the tonal center because the diminished seventh built on its leading tone ($d\# - f\# - a - c$) permeates the opening measures. This same diminished seventh also tonicizes $c$-sharp. For a short time, this region vies for tonic status but it proves to be no serious threat. The importance of $c$-sharp in this piece lies in the fact that it is a vitally active sixth degree that vies for associations of its own both as $c$-sharp and as $c$-natural. Thus it happens that the multitude of options that this diminished seventh may set up, Liszt takes only two of them, the one being the tonic, the other the sixth. The opening bars of the *Sonetto* demonstrate that an equidistant formation may set up tonal options. But it also shows that they become options only when taken. The remaining examples of rotating mediants demonstrate a usage that is more common in Liszt's works.

As opposed to Beethoven's practice of laying a tonal foundation with tertian chains as in his Opus 57, rotating mediants in Liszt's final cadences keep tonal options open. Rapid rotations (and they are usually rapid) progressing by equidistant thirds befuddle the ear as to harmonic direction. They nullify (at least, neutralize) harmonic tensions that may have accumulated at the time of their entry. A neutral harmonic situation eliminates the necessity for fulfilling diatonic exigencies. This freedom permits selecting material for the construction of
the cadences that is congruent with the harmonic environments of the pieces they bring to conclusion. For example, the dominant key plays no vital part in the construction of these pieces. Thus, the role that the dominant plays in the cadences is an indication in itself as to how far Liszt has moved away from the diatonic system, even in his early works. It is conspicuously absent in some of them. Except for the early version of the Tarantella, it is the penultimate chord in none of them. The subdominant, on the other hand, plays a significant role in the cadences.

We now have explicit reference points for the outer limits of Liszt's compositional experience. As an historical link, the rotating-mediant idea as defined in the present discussion looks both to the past and to the future. The foregoing comments summarize its connections with the past. Looking forward, it is an explicit reference point for the time that rotating mediants join with whole-tone sound in the beginning phase of Liszt's whole-tone experiment. The coming together of the two ideas completes the field of equidistant associations. Unstern, already defined as a point of reference in the introductory chapter, shows the extent to which Liszt abstracts this field of associations. The unfolding of Liszt's whole-tone experiment will show what happens between the two points.
PHASE I.

THE EVOLUTION OF WHOLE-TONE SOUND IN LISZT'S ORIGINAL PIANO WORKS

CHAPTER III

WHOLE-TONE SOUND IN A DIATONIC CONTEXT:

NASCENCY TO MATURITY

The first phase of the evolution of Liszt's whole-tone idea spans the period from 1838-62. The analytical discussions of the events that take place in this phase follow the plan as prescribed in the introductory chapter. The overriding consideration in the discussions is to explain the shapes that the whole-tone idea assumes in various situations in order to show how it evolves. The explanations require showing to some extent how the shapes relate to other features in the overall design in which they become a part. Showing this relationship tends to become less expansive in each successive step as the idea comes of age. The discussion takes up each of the whole-tone passages in a chronological sequence. A question arises as to the correct position of Hungarian Rhapsody VII and Étude de Concert No. 3 in the sequence. It arises because of uncertainties relating to the dates, not of the compositions but of the whole-tone passages themselves. Appropriate explanations pertaining to this question accompany the discussions of these works in the main body of the text. All of the discussions aim toward the goal of clarifying Liszt's method to the extent that is possible within the
limitations imposed by the definition of a single idea. The definition of Liszt's whole-tone idea is perhaps one-sided because it adheres to his original piano works, but this does not necessarily mean that it is incomplete. If it is incomplete, it is because it does not include literally hundreds of examples in Liszt's works that show a whole-tone influence in their construction while not evoking whole-tone sound when performed. If this study omits some border-line examples, it is due to the strict adherence to the stipulation that each illustrative example must evoke whole-tone sound.

**Grand Galop chromatique (1838)**

The *Grand Galop chromatique* was a "favourite war-horse of Liszt, and in his years of virtuosity it nearly always ended his concerts."\(^{105}\) Nothing in the piece would strike present-day audiences as shocking or daring, but for the audiences of Liszt's time to applaud its audacious harmonic scheme comes as somewhat of a surprise. Liszt's virtuosity is undeniably a factor figuring in the success of the piece. Weitzmann confirms this by describing Liszt's performance of it as "sweeping onward with demonic wantonness" at "an incredibly rapid tempo."\(^{106}\) But Liszt's virtuosity and consummate showmanship are not enough in themselves to account for the enthusiastic response the piece brought forth. To these factors, we must add consummate musicianship and understanding. Few, if any, of the pianists of the time understood the bold disregard for conventional practice such as that described in the discussion that follows.

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\(^{105}\)[Sitwell, Liszt, p. 60.]

\(^{106}\)[A History of Pianoforte Playing and Pianoforte Literature, p. 186.]
Even Hanslick found Liszt's pieces "tolerable when played by Liszt himself,"107 but, to be sure, only when he played them.

Sequential Dominants

Sequential dominants became a feature of common harmonic practice during the Baroque era. The device comes close to being a cliché in Vivaldi's works, to mention only one composer. His imaginative uses of the device prevent this. The purpose of the device in Baroque music, however imaginatively treated, is to modulate to closely related keys. A sequential succession of dominants is temporarily out of key, even in Baroque music. Think for a moment of the impossibility of identifying a key in a Vivaldi Concerto if your decision had to be made at the midpoint in a passage of ever-shifting dominants. The out-of-key factor produces no discomfort in Baroque music because the ear accepts the device as a way of changing key. This is by way of saying that the ear expects and gets a new key when the "spin of the circle" ceases. Suppose the sequence extends beyond the point where one may reasonably expect a new key. An out-of-key feeling becomes more and more evident, and this creates tension which continues to mount as it becomes more and more obvious that the intention is not to deliver a new key. Liszt recognized the out-of-key factor in sequential dominants and exploited it in the Grand Galop with an exuberance comparable to that of a child upon discovering new uses for an old toy. When the sequence of sevenths (Ex. 41, mm. 231-38) whirls with dazzling speed counterclockwise around the circle of fifths twice, his purpose is not to fulfill diatonic functions but, quite to the contrary, to suspend them. A cleverly incorporated

107 Vienna's Golden Years of Music, (1850-1900), p. 46.
whole-tone succession, a superimposed factor, neutralizes any possibility of diatonic function that the progression might otherwise suggest.

The sequence consists of pairs of sevenths. In each pair, a first-inversion seventh ($\frac{5}{3}$) on the weak part of the beat progresses to a root-position seventh on the beat. Both the fifth, doubled at the octave, and the root of the $\frac{5}{3}$ enter with an offbeat accent in the r.h. and become suspensions so as to proceed downward via whole-tone to the same position in the following $\frac{5}{3}$. Repetitions of this pattern ultimately span a range of two octaves plus a major third. The furibund accumulation of sound obviates the descending chromatic line in the fourth voice-part in the r.h. Whole-tone sound, on the other hand, is perceptible.

The approach to the roots of the root-position sevenths in the l.h. is from a semitone below. The roots, strengthened by tendency tones, progress downward via whole-tones on the beat. This movement is not altogether responsible for making whole-tone sound perceptible. It is rather an interaction between the hands. The dissonantal clashes that the roots in the l.h. create with the suspensions in the r.h. powerfully emphasize the whole-tone succession. This arrangement of the sequence, particularly the dissonances created by the interaction of the hands, clearly indicates that Liszt wished to evoke whole-tone sound in this passage and that, moreover, he wished it to be perceived as such.

Harmonic Environment

The harmonic environment of Liszt's Grand Galop is a typical product of his early tonal thinking. The piece is in E-flat major. The absence of the dominant key comes as no surprise in view of the discussions of Beethoven and Schubert in the preceding chapter. Capricious juxtapositions of keys abound in the Grand Galop. The keys juxtaposed
relate to both E-flat and its parallel minor. In the light of the prominence of the subdominant in the cadences discussed in connection with the definition of rotating mediants, it is no surprise that the most prominent key from the minor side of the tonal spectrum should be a-flat, the minor subdominant. But when is a key a key? A modulation a modulation? Grand Galop contains neither keys nor modulations if one subscribes to the following maxim: "If a definite key change is desired, both keys should be firmly established by at least three center affirming chords." This maxim appears in a widely-adopted textbook on twentieth-century harmony. Grand Galop antedates this book by a hundred and twenty-four years.

Some theorists term fleeting tonalizations as transient modulations. We have already seen examples of them in Beethoven's development sections. Liszt himself probably thought of them as complying with the laws of a new system—ordre omnitonique—that François Joseph Fétis, the Belgian musicologist and theorist, defines in his treatise on harmony. This treatise, incidentally, went through eleven editions and was still in use at the Paris Conservatory in the late '70's. Liszt attended Fétis's lectures on his system in Paris around 1832, and they exerted a lasting influence upon his thinking as proved by the following excerpt from a letter that Liszt wrote to Fétis in September, 1859, some


109 François Joseph Fétis, Traité complet de la théorie et de la pratique de l'harmonie, contenant la doctrine de la science et de l'art. 11. ed. rev., cor. et augm. par l'auteur (Paris, Brandus, c1875).

If you would be so kind as to honor me with the undertaking of the task, you would learn, upon examining the Weimar works of the past ten years, that I have never ceased to derive profit from your instruction, particularly from your remarkable lectures on 'Omnitonie' and 'Omnirhythmie.'**

A process of alteration lies at the heart of Fétis's system. The process disregards the laws of the diatonic system. "The will of the composer alone determines the choice of the attraction which must be more important than the others," Fétis explains in the Preface of his treatise, adding:

The multiplicity of changes [alterations] resulting from a chord modified by the collective changes . . . permits it to be placed in a tonal relationship with all of the scales in their two modes.***

Transient modulations, the absence of the traditional tonal pillars, the usurping of the dominant's tonicizing powers, the prominence of the minor subdominant key, all of these factors combine in Grand Galop to make its tonal center rather ambiguous. On the other hand, these factors signify that another principle is in operation. The search for a center becomes a form-building force. And in Grand Galop, as well as in many of the other pieces that we are to examine, the search frequently takes on the character of improvisation. In the passages that evoke an improvisatory impression, Liszt, a consummate master of the art, appears to be attempting to write down his ideas in the manner they first came to him while improvising at the keyboard. And this would not necessarily be improvisation in the sense of its being

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**Liszt, quoted in István Szélényi, "Der unbekannte Liszt," Studia Musicologica, V (1963), 312.

***Fétis, Traité, xix.

Loc. cit.
sweeping digital displays, but an improvisatory approach that includes wrong turns, backing up to get a new start, leaping ahead to premature conclusions, awkward harmonies, and finally, sudden, positive outbursts indicating that the improviser has solved his problem.

Individual tones struggle for associations of their own in Liszt's early works. Chief among these are the flatted sixth and the flatted second degrees. Ultimately, they free themselves of the fetters imposed by diatonic laws. We have more or less consistently referred to the manifestation of this new freedom as the shedding of chordal encumbrances that begins to be apparent in Liszt's works around 1860. The flatted sixth degree appears in *Grand Galop* in every conceivable guise: as a single pitch, as in the opening fanfare on a bare c-flat; as the root of a chord, and as a key. Although rejected as a key region, the dominant attempts to retain its time-honored relation with the tonic as a tonicizing agent. It encounters considerable difficulty in the attempt, its chief adversary being the flatted sixth. In fact, it becomes a mortal struggle from which the flatted sixth emerges as the victor. At least, it is the one that appears last in association with the tonic, the dominant having fallen by the wayside some fifteen measures before the final conclusion of the piece. The whole-tone passage enters the struggle as a neutralizing agent. While it "clears the air" so as to free the dominant of its rather persistent and aggressive adversary, the freedom is shortlived. The flatted sixth returns and totally usurps the dominant in the approach to the final cadence. The account which follows tells what happens in the final stages of the struggle.

A chromatic flourish, occurring twenty-four measures before the entry of the whole-tone passage, fails to shed the c-flat. The flourish
repeats with the same result (Ex. 41, mm. 215-18): the tenacious c-flat perches atop the dominant seventh (surely no one would call this a minor dominant ninth!). Following the failure of the second attempt to get rid of the c-flat, E-flat wanders as though in search of its unadulterated dominant and becomes entangled with the relatives of c-flat: first, G-flat (mm. 221-22), then b-flat (mm. 223-24), and finally D-flat. Something amounting to panic replaces the two measures that would round out the tertian sequence. The tertian path is not leading to the desired goal. In fact, it is leading nowhere. What to do? When one takes the wrong path, the only thing to do is to return to the beginning point and start over in an effort to gain familiar footing. The return to E-flat, though it retraces the wrong turn backward from D-flat, requires only half the time because the sequential segments in the return trip are cut in half.

After this fruitless venture, E-flat is less stable as a tonic than it was before. Denied an association with its dominant, it begins to lose its identity as a tonic. The dominant itself has a similar problem. Three measures in which E-flat alternates with its dominant have no stabilizing effect at all because it is not the kind of association that leads to tonicization. Beginning on the weak position of the sixth (m. 227), B-flat becomes even less of a dominant as it changes to a $\frac{6}{4}$ position (m. 228), and finally expands into an augmented triad (m. 229). The dissolution of the dominant leads into the whole-tone passage which tends to stabilize the utter confusion of the immediately preceding measures by neutralizing momentarily all diatonic associations.

The bass-line of the whole-tone passage reaches its destination on b-flat over which forms a dominant seventh which is free, for the
moment at least, of the flatted sixth. The V\textsubscript{7} progresses, after an eighth rest, to E-flat which then stabilizes itself with a rapid, eighth-note tonic pedal which extends to eight measures. The flatted sixth reappears, this time in a neapolitan formation that reinforces the dominant. Reinforced by this generous gesture from its erstwhile adversary, the dominant enjoys a twelve-measure exchange with its tonic that divides into six two-measure units, each of which consists of one measure of dominant followed by one measure of tonic harmony. The generosity of the adversary is shortlived. This is the last appearance of the dominant in the piece. The flatted sixth, having stood aside during the dominant-tonic exchange, now asserts its full rights and answers with alternations of its own with the tonic, now with bVI (C-flat), now with iv (a-flat) (Ex. 42). The piece ends with a sixteenth-note tremolo in the r.h. on a tonic pedal (eight measures) followed by tonic chords (four measures) in different registers. E-flat is unquestionably the tonic region in the Grand Galop, but its shift away from traditional polarities necessitates making certain adjustments in the traditional concept of the tonic as a centripetal center. The final cadence extends to allow equal time to the dominant and its chief adversary, the flatted sixth, to finalize their association with the tonic.

Example 42. Liszt, *Grand Galop chromatique*, measures 278-82.
It is noteworthy that the flatted sixth enters last, or conversely, that the dominant does not enter at all in the final twenty-nine measures of the piece.

Neutralization is an absolute necessity in Liszt's style. It precludes a build-up of dissonantial tensions common to the diatonic system, tensions that culminate in traditional cadences in which the dominant plays a vital role. It does more. In a broader sense, it nullifies gravitational pulls that are necessary for centering the tonic between the traditional tonal pillars. Whole-tone sound is but one of the neutralizing agents that Liszt developed. The nascent whole-tone passage in the *Grand Galop* shows it operating in this capacity.

The fact that the passage evokes whole-tone sound makes it an important example in the projection of the evolution of the whole-tone idea. Were it not for subsequent developments in the evolution of whole-tone sound, it would be simply another example of Liszt's manipulating diatonic materials that do not behave according to the laws of the system. To present numerous examples in support of this observation would take us too far afield. One example will suffice. The example, another passage of sequential dominants, is particularly relevant because a whole-tone succession guides the progression, the difference between it and the *Grand Galop* being that whole-tone sound per se is not perceptible. The passage appears in the approach to the final cadence of the Galopp in a minor (Ex. 43). It, too, serves as a neutralizing agent.

Again, as in the *Grand Galop*, the sevenths progress by pairs, each pair consisting of a major-minor seventh in $\frac{6}{5}$ position on the weak part of the beat and a root-position seventh on the beat. Again, the approach to the root of the root-position seventh is from a semitone
below. Because the sequence rises instead of descending as in the Grand Galop, the semitone movement from one pair to the next creates an ascending chromatic line. Because this chromatic line is in the bass, and because it is clearly perceptible, it obviates whole-tone sound.

Example 43. Liszt, Galopp in a minor (c. 1841), measures 308-19.

As already pointed out, consecutive chromatic common chords in Liszt's early works suggest the path of entry for the other equal divisions of the octave. In any event, they appear first. We have already seen that the common chord, mainly the major triad, articulates rotating mediants. We shall see in Heroischer Marsch, the piece that illustrates the second step in the evolution of whole-tone sound, the first example of consecutive major triads in whole-tone succession. We have not yet cited an example illustrating chromatic movement. Again, a single
suffices for the purpose. Of the hundreds of examples of chromatic pas-
sages involving consecutive intervals or chords in Liszt's early works, 
not one of them is more relevant to our purpose than the passage of con-
secutive major triads moving chromatically in the Galopp (Ex. 44). Its 
relevance supersedes chronology as the decisive factor that led to its 
selection as an illustrative example.

The main point here is to illustrate similarities in the way 
that the equal divisions of the octave enter into Liszt's method. If 
there is a direct connection between the passage in the Galopp and the 
one that is coming up in Heroischer Marsch, it is that major triads move 
downward to the dominant by equal interval in both of them. All this 
means in the present context is that the two examples illustrate proce-
dural similarities. Local situations determine the shapes of Liszt's 
ideas. It would seem, as we shall see momentarily, that the whole-tone 
implications of the progression, i - bVII - bVI - V, is the impetus for 
the whole-tone succession in Heroischer Marsch. It is not necessary to 
explain the environment in which the shape appears in the Galopp as our 
interest lies in the shape itself. Beginning on bIII (C), the triads 
descend chromatically to I which then changes to i, the root of which 
suspends through a measure to resolve finally to the third of the domi-
nant chord. Thus the goal of the progression is the dominant.

Example 44. Liszt, Galopp in a minor, measures 33-39.
Composed for piano in 1840, Heroischer Marsch "was later expanded—not to its advantage—to become the basis of [Liszt's] symphonic poem Hungaria." This composition marks the real beginning point of our exploration as it points to certain developments in the evolution of the whole-tone idea that come to fruition during Liszt's period of retrospection. To be more specific, it paves the way for the coming together of whole-tone sound and rotating mediants that takes place later in the '40's.

As already stated, Heroischer Marsch provides the first example of consecutive major triads in whole-tone succession. Having no precedent, this succession emerges as a spontaneous discovery in the improvisatory approach to the final cadence of the piece. It correlates with the tertian chain of major triads that comes immediately before its entry. In fact this chain stands on its own ground as a discovery in itself. As regards this chain, a gentle reminder is necessary to be certain that we recall the chronology of events. The illustrative examples appearing in connection with the definition of rotating mediants come some years after Heroischer Marsch, the first, Sonetto 104 del Petrarca, having been composed six years afterward, the remaining examples having been composed after 1846. In the light of where Heroischer Marsch fits into the chronology of events, we shall see it as a progenitor not only of the whole-tone idea but of the rotating-median idea as well.

Because of the difficulties encountered in procuring this piece, a complete score appears in the appendices for the reader's convenience.

Searle, The Music of Liszt, p. 43.
This view gradually emerges as we examine two progressions that recur throughout the piece, the one by seconds, the other by thirds. They appear alternately in repeated sections. They do not intervolve in the same passage as happens later in the decade when major seconds and equal thirds come together in the same progression. As opposed to intervolve, this is interaction continuing over a long time-span. This interaction furnishes the impetus that leads to the discovery in the final measures of the piece. The discussion that follows traces the successive appearances of the progressions and then addresses itself to how they interact. This will, in turn, lead to a full disclosure of the discovery itself.

Overall Design

Skeletal delineations of overall form appear in this study only where necessary. The outline of the form of Heroischer Marsch that follows immediately facilitates citing details in the discussion that follows thereupon.

Example 45. Liszt, Heroischer Marsch, overall design.

<table>
<thead>
<tr>
<th>Parts</th>
<th>A</th>
<th>B</th>
<th>A'</th>
<th>B</th>
<th>A</th>
<th>B'</th>
<th>Coda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subdivision of parts</td>
<td>a b a' b</td>
<td>c d c d</td>
<td>a b</td>
<td>c d c d</td>
<td>a b a' b</td>
<td>c d c d</td>
<td>a</td>
</tr>
<tr>
<td>Keys in relation to tonic</td>
<td>i</td>
<td>bVI</td>
<td>ii - bii</td>
<td>bVI</td>
<td>i</td>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>&amp;</td>
<td></td>
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<tr>
<td>d</td>
<td>Bb</td>
<td>e</td>
<td>eb</td>
<td>Bb</td>
<td>d</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>Measures</td>
<td>1-40</td>
<td>41-57</td>
<td>58-76</td>
<td>77-104</td>
<td>105-56</td>
<td>157-79</td>
<td>179-88</td>
</tr>
</tbody>
</table>
A few explanatory comments will further facilitate matters. Lower case letters followed by prime designations as, for example, a', indicate transpositions. When a whole section returns in a different key, prime designations follow the capital letters. Lower case a's stand for the i - bVII - bVI - V progression; therefore, predominant root movement in Section A is by seconds, much of it by major seconds. Predominant root movement in Section B is by thirds. Tertian chains abound in this section, the generative progression being bVI - iv - bVII (locally: I - vi - IV). Lower case c's stand for this progression in the first two statements of Section B. The deflection to the major mode for the final statement (B') changes the progression to I - vi - IV.

The i - bVII - bVI - V Progression

_Heroischer Marsch_ opens with the i - bVII - bVI - V progression in the tonic (d) (Ex. 46). This progression remains basically the same in all subsequent appearances except the last one in the coda where it assumes a different shape. Elsewhere it is different each time but only in the sense that each successive appearance is a variation that adheres rather strictly to the basic progression. The first repetition of the progression comes at the beginning of the second half of Section A. Only slightly varied in f (mm. 19-29), it counterbalances the turn to bVI in Section B.

While the turn to bVI betrays Liszt's connections with Beethoven and Schubert, the liberties he takes in connection with the move show him to be many steps removed from the turns to this region that we observed in these composers' works. Note, for example, that f (iii) is not a closely related key in either major or minor mode of a tonic on d.
In itself, this is not enough to separate Liszt from his predecessors as each of them may have used the key. It is Liszt's approach to the key that breaks with the past and looks to the future. While Beethoven or Schubert may have used this key, they would have moved to it in a more conventional way, say, for example, through F (III) which is a closely related kay of d. To fully understand the break with the past, we must probe a bit deeper. Liszt reveals his break with the past most pointedly, not in the use of the key itself, but in how the key helps to position the tonic, itself vacillating via modal deflections, between vacillating thirds, now major, now minor. The rather startling interpolation of a tonicized F-sharp (♯III) (Ex. 47) that comes just before the final cadence in D (Section A), or immediately before the entry of bVI, is the first evidence of this vacillation.

Example 46. Liszt, Heroischer Marsch in ungarischem Styl (1840), measures 1-10.
The $i - bVII - bVI - V$ progression in e (mm. 58 ff) signals the first return of Section A. While the basic progression harks back to the beginning, the r.h. arpeggations look forward to similarly treated arpeggations in Section B that follows. These figurations, their kinship unquestionable, figure as a factor in the interaction of the two basic progressions. We shall have occasion to cite an example that shows them in connection with the discussion of tertian chains in Sections B and B'. We shall also hold in abeyance for the moment the discussion of another feature in this section that contributes to the interaction between the principal sections. This is the tertian chain in its final measures.

The final return of Section A is a much embellished restatement of the section as stated at the outset of the piece; therefore, the $i - bVII - bVI - V$ progression reappears as before, first in d and then in f. This means that this progression appears in the main body of the piece five times. The final statement of Section A does not cadence in D as before. The F-sharp ($III$) interpolation extends by means of a sequence first to B and then to a cadence on g which elides with the beginning of a transition passage that leads back to the final statement of B'. The transition begins with a tertian chain, another evidence of interaction.
The discussion of this chain along with the one previously mentioned that comes at the end of Section A' will serve as a transition leading to the discussion of the tertian chains in Section B.

Tertian Chains

The tertian chain that follows the F-sharp interpolation and an extension thereof begins on g and folds downward in thirds to A, the home dominant. Tonicizations do not precede the points of articulation which, with the exception of g, are major triads. The complete progression is as follows: g – E-flat – C – A. The presence of a minor triad in the progression couples with the fact that all of the roots are not equidistant to make it ineligible to qualify as a bona fide example of rotating mediant. It is nonetheless a prototype only slightly removed from the examples presented in connection with the definition of the rotating-median idea. A diminished chord, though to be sure not a diminished seventh, guides the progression despite the presence of the major third between the roots of g and E-flat. All this means is that the progression is a hybrid having closer ties with a concept of equidistance than it does with diatonic tertian chains. For that matter, two of the examples presented in connection with the definition are also hybrids. Compare the present example (Ex. 48) with the ones excerpted from Tarantella\textsuperscript{116} and Hungarian Rhapsody XII\textsuperscript{117}. While the augmented triad guides both of these progressions, each of them contains a minor third, the one between the roots of the first two triads, the other between the roots of the last two triads.

\textsuperscript{116}Supra, Ex. 35, p. 112. \textsuperscript{117}Supra, Ex. 36, p. 116.
Example 48. Liszt, Heroischer Marsch in ungarischem Styl, transition to final return of Section B', measures 144-47.

Example 49. Heroischer Marsch in ungarischem Styl, subsection b of Section A, first return, measures 66-77.
The tertian chain at the end of the first return of Section A appears in conjunction with the motive from subsection b. It is a chain of root-position major-minor sevenths (Ex. 49, mm. 72-74). Developmental in character, subsection b dwells upon the motive as originally stated but transposed to e-flat (bii) (mm. 68ff). The choice of this motive is significant in itself. In e-flat, it is $d - e_b - f - g_b$, or a semi- plus a whole- plus a semitone. It is, moreover, half of an octatonic scale. Having already encountered this scale in connection with Sonetto 104 Del Petrarca, we shall continue encountering it throughout this study. In the present example, it explains not only the motivic fragment that repeats continually in the r.h., it explains the bass-line as well. The motive joins with the tertian chain in measure 72 to begin the transition that leads to the first return of Section B. A diminished chord guides the sevenths in the chain, but again, it is not a diminished seventh. The example shows the chain along with its immediate surroundings.

The long tertian chain of root-position major triads that precedes the whole-tone succession of major triads in the coda (Ex. 50) is an improvisatory extension. To fully understand it, we must refer back to the original statement of Section B. In its first appearance, Section B consists of an eight-measure sentence twice repeated. The sentence subdivides equally into two phrases both of which begin on B-flat, the principal key region, and fold downward in thirds. With the exception of cadential dominant sevenths, all of the chords are triads treated as block chords. The progression in the first phrase runs as follows: B-flat (I) - g (vi) - E-flat (IV). Roman numeral designations relate to the local key. In relation to the home tonic, the progression is
The second phrase folds downward to G but continues no further downward. It finally cadences on G (VI). Then begins the repetition of the sentence.

The first return of Section B is a much embellished version of the first statement. Block chords continue in the l.h. as before. Arpeggiation studded with double notes appear in the r.h. Upon returning, the basic progression remains the same until it reaches the second turn to G in the repetition of the sentence. At this point, it continues folding downward in thirds. The progression becomes in the extension: B-flat (I) - G (VI) - E-flat (IV) - C (II) - A-flat (bVII). From A-flat, which Liszt marks with a quadrupled forte (ffff), there begins a transition to the final statement of Section A. Note that the roots of the triads fall upon diatonic degrees in B-flat with one exception, A-flat (bVII).

The final statement of Section B (B') turns to the major mode of the home tonic (D). Because it is an almost literal restatement of the first return, the progression appears as shown in example 50: D (I) - B (VI) - G (IV) - E (II) - C (bVII) (mm. 170-74). And this brings us to the point where the whole-tone succession begins.

Five measures of arpeggiated figurations on C major (bVII), the final chord in the tertian chain, build up to a triple forte (fff). This cannot be a climax because bVII's do not build climaxes. The repetitions of the chord suggest rather an improvisatory pause, the kind of pause in which the music does not stop but which allows the improviser to calculate his next move. The overriding consideration here is to bring the piece to a logical conclusion that will be totally congruent with the harmonic law that the piece has created for the moment. We may
speculate on the factors that enter the improviser's mind as he contemplates his next move while, at the same time, holding the listener's attention with sweeping arpeggios on bVII.

The immediate impetus for the whole-tone succession, now that we know its origin, is the long tertian chain that comes just before it. The improviser ponders: If I can lengthen a tertian chain of major triads with an improvisatory extension, why can I not lengthen a whole-tone succession the same way? As for other impetuses, the whole-tone implications of the i - bVII - bVI - V progression are rather self-evident. Change the tonic to major and they become more obvious. At least, they become more pertinent to the way Liszt handles the whole-tone succession in the coda. All that is left to do to create an extended whole-tone succession is to increase the interval between bVI and V by a semitone. As an added compensation, a whole-tone down from bVI by-passes the dominant, a chord that is conspicuously absent in the approach to the final cadence.

Beyond the more obvious impetuses, there is interaction between the two basic progressions. The tertian chain leading into the whole-tone succession is itself a by-product of interaction. Similar passage work imposed upon both progressions helps induce interaction. The presence of tertian progressions in Section A, the home of the i - bVII - bVI - V progression, is yet another evidence of interaction. We may note that these progressions are the only examples of equal-third movement in the entire piece.
Example 50. Liszt, Heroischer Marsch in ungarischem Styl, the approach to the final cadence, measures 170–88.
One final factor, a most significant by-product of interaction, is the high incidence of root-position major triads throughout the entire piece that creates a virtual major continuum despite the piece's minor beginnings. Among other things, this continuum goes a long way toward explaining the twenty-six or so consecutive major triads in the approach to the final cadence of Tarantella which was to come six years later. In any case, *Heroischer Marsch* helps explain Liszt's penchant for the major triad in his early efforts to circumvent the diatonic process. As one explanation for this preference, the major triad, of all the common chords in the diatonic system, is perhaps the most stable as a tonal entity. Calculating from any fundamental, the first five partials in the overtone series constitute a major triad. This natural phenomenon perhaps explains Liszt's preference not only for the major triad itself but also his preferring to use it in root position.

Some of the points in the preceding explanations are purely speculative; others relate to patent harmonic facts. In any event, speculation notwithstanding, the whole-tone succession in the final measures of *Heroischer Marsch* conveys the impression that Liszt discovers it almost as if it were by accident, the kind of accident that happens when a consummate master of improvisation carries to a logical conclusion the harmonic laws that he creates for the moment. In other words, he allows the material to generate and fulfill its own exigencies. To fully grasp the situation in the light of where it stands in the course of events, one must, if possible, suspend a priori concepts, temporarily put aside knowledge of subsequent developments, and focus upon this moment in the history of the language. Then one may see (hear) nascent whole-tone sound emerging as though by spontaneous generation. We may imagine the
spontaneity of the moment as follows.

A half-measure rest (m. 179) signals the improviser's readiness to move on. Taking his cue from the triple forte C chord, he resumes with the same triad somewhat thinned out but still a block chord in root position. Block chords hark back to the first statement of the progression by thirds at the beginning of Section B, the only other place they appear in the work. Does this mean that he is to resume the progression by thirds? The move from C to B-flat eliminates this possibility and suggests that he is returning to the opening progression by seconds. But he by-passes the dominant and continues downward from B-flat to A-flat - F-sharp - e - g⁶₄ - D. But why e (ii) instead of E (II)? And why a iv⁶₄? Why not continue all the way down to the tonic with major triads?

As to these questions, we may refer back to Schubert, not for explicit answers but for some antecedents. We shall recall that the supertonic is the only minor triad in the all-major-but-one tertian chain at the end of his "Aus 'Heliopolis' II." It is entirely possible that Liszt's reasons for choosing the minor triad in the present example relate closely to Schubert's. As to Schubert's reasons, we speculated that II, because it is the dominant of V, suggests pulls in an upward direction. We need not speculate further about it. As to the iv⁶₄, there is less uncertainty regarding a connection. Schubert makes frequent use of the appoggiatura iv⁶₄ precisely as Liszt uses it in the present example in which it progresses directly to the tonic.

And D sounds quite right and conclusive as a tonic, incredibly enough, in the light of all that comes before it. As a matter of fact, the V - I cadence that Liszt tacks on to conclude the piece sounds
rather pallid and inconsequential, in a word, unnecessary, following such an imaginative approach to the tonic. Everything considered, and this would include the early date of the composition, one must question Liszt's compulsion to make this concession to conventional practice after such a daring departure. Later, in a similar situation in the final cadence of the Dante Sonata, we shall see that he no longer feels it necessary to make this concession.

The foregoing discussion leads to the general conclusion that the interaction of two basic progressions in Heroischer Marsch generates the practical procedural concept that common chords may progress by equal thirds (rotating mediants) and equal seconds (whole-tones). A prominent feature in the concept is the root-position major triad, or rather extended chains of consecutive root-position major triads, the chains progressing by equidistant root movement being the most pertinent to our aims. But aims relating to future developments should not obviate the significance of the extended tertian chain of major triads in which the roots fall upon diatonic degrees, first in B-flat and finally, in D. This improvisatory excursion by thirds, beyond any question, helps explain the final excursion by seconds. And this excursion, it would seem beyond question, opens the way for future developments in the unfolding of Liszt's whole-tone experiment.

Hungarian Rhapsody VII (1847, new edition 1853)

Searle does not give a definite date for Hungarian Rhapsody VII in his "Catalogue of Works."\textsuperscript{118} The dates for the first and second editions of the work indicated in the sub-heading, 1847 and 1853, appear

\textsuperscript{118}\textit{Supra}, n. 53, p. 29.
in *Franz Liszts Musikalische Werke*. While the earlier version of the work is not available for comparison, it would seem in the light of subsequent developments in the evolution of the whole-tone idea that the whole-tone passage as it appears in the final version also appeared in the earlier version. For this reason, the earlier date serves as the basis for determining the Rhapsody's position in the chronological sequence of events. The reasoning that led to this decision will become clearer as the evidence accumulates.

**Harmonic Environment**

Whereas Liszt exploits the ambiguities of a major tonic-minor subdominant relationship in *Grand Galop*, he turns this around in Hungarian Rhapsody VII and exploits the ambiguities of a minor tonic-major subdominant relationship. He reveals his plan of operation by juxtaposing brief tonicizations of d (i) and G (IV) in the opening measures of the *lассу*. These tonicizations expand into principal key areas in the *friska* as follows: d (mm. 32-103); G (mm. 104-82).

Example 51. Liszt, Hungarian Rhapsody VII (1847 and 1853), measures 1-8.

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Example 51. Continued.

The d minor section ends in D major, but D fails to be convincing as a tonic. It tends to behave rather more in the nature of a dominant. The exchange between D and its dominant helps to create the ambiguity. While it leads to a cadence on D in measure 103, the listener may perceive the cadence in two ways. He may hear it as a cadence in D as the conclusion of a formal section, but he may also hear it as a cadence on the dominant at the end of a transition leading into G.


Contrasting key areas in the G major section turn first to e minor and finally to E major. Two six-measure phrases turning without modulation from G to e to G to E evoke a Schubertian image that is not unlike "Der Musensohn" (Ex. 29) in which the phrases alternate in similar fashion from G to B. This section ends with a long arpeggiation
on an E major triad cast in precisely the same figuration that Schubert uses in the opening measures of his Impromptu in A-flat, Opus 90 (Ex. 25). And to one who is familiar with the methods of Beethoven and Schubert, an extended play on a major triad begins to sound like a dominant. If the listener has a good sense of pitch, he will, as Liszt probably intended, begin to hear the long arpeggiation as the dominant of A. If this is his intention, it is another deception as it is not the dominant of the section that follows. Nonetheless, it leads into the superficial reprise of the principal sections of the friska. The d minor section returns quite transformed; the G major section returns in D as though by accident.

The return of the d minor section (mm. 183-216), although signaled by a change of key signature from one sharp to one flat, contains little that suggests d minor. It bears only a superficial kinship with the material in the original statement, to wit, a brief suggestion of the drone bass and open fifths that introduce the friska in the first statement. An identical measure threatens literal repetition. The short-lived threat breaks into a sustained passage of diminished sevenths. Compare example 59, measure 97 and example 53, measure 205.

This passage of diminished sevenths illustrates a use of the chord that is not uncommon in Liszt's early works. Here it loosens diatonic ties, a function that Liszt often assigns to rotating mediants in the approach to a final cadence. Of particular interest is the way that Liszt fills in the minor third with a motivic cell consisting of a semi- and a whole-tone. The cell, quite active in the uppermost voice, sustains the progression through ten measures. The "roots" of the diminished sevenths progress in a clockwise movement around the circle of
fifths, but not all the way around. Beginning on c-sharp, the progression continues sequentially to f (e-sharp) in measure 209. From this measure onward, the chords change on every beat. The dominant finally emerges (m. 215) to sound for two brief measures to signal the coming of the final section in D.


In the approach to the final cadence of the Rhapsody, Liszt evokes the impression that the performer takes a wrong turn and finds himself, somewhat unexpectedly, beginning the final section as though to repeat the G major section. The G to E phrase pattern of that section transposes to a D to B pattern and, if continued, it would eventually lead to an extended arpeggiation on B. Upon realizing what has happened, the performer (improviser) seeks to avoid this goal, his desire being to bring the piece to a satisfactory conclusion. Triple forte and sempre martellato, the markings at the beginning of the passage, do not suggest indecision, but the refusal to carry through with a second six-measure phrase in b does. A poco rit. (Ex. 54, mm. 233-34), a slight hesitation in the approach to the first cadence in B,
would seem to suggest cognizance of the wrong turn. What to do? Start over and try again.

The repetition brings forth a bass-line of octave zigzags that appeared first in the approach to the cadence of the first section of the friska (Ex. 52, mm. 97-103) and later in the passage of diminished sevenths (Ex. 53). The r.h. also changes in the repetition, a slight but significant change as we shall see momentarily in the discussion of the whole-tone passage. In what begins as a repetition of the six-measure phrase beginning at the a tempo, the three-measure antecedent phrase turns abruptly to F-sharp in the position of the sixth (m. 243). An answering consequent phrase would lead inevitably to B. But the follow-up phrase rejects B and turns back to D. But, be done with it! --get out of this entanglement! The consequent phrase continues downward in whole-tones in search of a solution that will lead to a final cadence. The search ends upon reaching B-flat (bVI), a chord that transforms itself in a wink into an augmented sixth formation by adding the sharped fourth degree (g-sharp). For good measure, or rather for good voice-leading, Liszt adds the leading tone. A thunderous two measures on this formation leads directly into the tonic. This settles the matter, but not conclusively; to end here would be too abrupt. A tonic-dominant exchange interspersed with the members of the Neapolitan chord (eb - g - bb) ends the piece. The last two measures, a confirming afterthought, mixes an incomplete Neapolitan with a tonic pedal, the dissonance becoming most pronounced in the penultimate chord. This mixture is yet another Schubertian device that Liszt assimilates into his method. And, to mention another influence that we have ignored thus far, Liszt also knew of Chopin's effective uses of this device (cf. Chopin's Étude in a minor, Opus 25, No. 4, final cadence). But the mixture, antecedents notwithstanding, is a typical Lisztian adaptation.
The Whole-Tone Passage

The whole-tone cascade in Hungarian Rhapsody VII, emerging out of figurations as it does, creates the impression that it results from quick-witted improvisatory thinking. It diverts the improviser from any necessity to follow through to B and leads to a satisfactory conclusion to the piece which is what the somewhat halting passage has sought all along. As to the shape of the whole-tone construction, it appears to grow out of the construction in Grand Galop. The construction in the Rhapsody shows that Liszt, ever-mindful of refining his compositional techniques, eliminated extraneous material and retained only the parts that are essential to the idea, this being, to be sure, the first elimination. This means that it is no longer necessary to decide upon the vehicle that carries the idea. There is no question that the vehicle in Grand Galop is sequential dominants. There is a question about the vehicle in Hungarian Rhapsody VII, but the question is of no consequence. It could be sevenths in $\frac{6}{5}$ position. And this possibility would seem to link it with the Grand Galop beyond any question, particularly when one notes the striking similarities in the voicing of the chords in the two examples. It is these similarities, and this is no incidental note, that determine the Rhapsody's position in the chronological sequence of whole-tone developments.

If the chords are sevenths, they are not all major-minor sevenths and they are consecutive, not sequential dominants. And this, the fact that they progress by whole-tones, would seem to link the example with the whole-tone passage in Heroischer Marsch. If one considers the chords to be sevenths, two of them are not major-minor sevenths, the ones built on $f$-sharp (and this would be only the first one on $f$-sharp) and
the one on e. And here again is a minor supertonic, a curious echo of the use of the same chord as the lone minor triad in the whole-tone construction in **Heroischer Marsch**.

One may also consider the vehicle to be major triads in the position of the sixth, the choice depending upon how one explains the non-harmonic tones. If one should consider the vehicle to be consecutive root-position triads, and this is another possibility, the majority of them would be diminished. All of the possibilities notwithstanding, the significant point here is that it makes little difference. Call the vehicle what you will, the sound that Liszt intended comes through beyond any question. In **Grand Galop**, Liszt had to produce the sound by manipulating a traditional progression. In the adaptation that follows, the progression sheds some of its traditional trappings. Liszt's torsions of diatonic materials spawn many new ideas. Some of them serve only once; others leave the spawning grounds to become compositional devices. The move from **Grand Galop** to Hungarian Rhapsody VII shows Liszt's whole-tone idea moving from its parent material to the first of several steps that will lead to its coming of age as an independent device. The next step shows it in its first encounter with rotating mediants. This more or less inevitable meeting takes place in Hungarian Rhapsody IX. While the encounter foreshadows significant future developments in the evolution of whole-tone sound, the way in which they come together betrays unmistakable connections with the developments that we have seen thus far.
Hungarian Rhapsody IX (1848)

As opposed to interaction over a long time-span that we observed in some detail in Heroischer Marsch, Hungarian Rhapsody IX shows equal seconds (whole-tones) and equal thirds (rotating mediants) interacting in the same passage. The passage from the Rhapsody that we are to examine in detail betrays other connections with the examples we have already examined. The shape that the whole-tone idea assumes is a somewhat more forthright adaptation of the octave zigzags in Grand Galop and Hungarian Rhapsody VII. A more advanced use of the major tonic-minor subdominant relationship also ties in with both of these earlier works. A capricious adaptation of the i - bVII - bVI - V progression ties in unmistakably with Heroischer Marsch. The passage of rotating mediants in the approach to the final cadence of Hungarian Rhapsody IX, while tying in with the whole-tone passage that appears earlier in the main body of the piece, will also relate back to the definition of the rotating-median idea in Chapter II. Roman numeral-designations serve no useful purpose in view of all of the tonal deceptions in this piece. As to deceptions, we shall make no attempt to unravel the ambiguities arising out of the major tonic-minor subdominant relationship. References to measure numbers correlate with example 55.

Whole-Tone Sound in Conjunction with Rotating Mediants

The home tonic in Hungarian Rhapsody IX is E-flat. The center of the tonic octave is therefore a. Two resolutions of a major-minor seventh (E7)—the first to A♯⁴ thrice-repeated, the second to E-flat at the Presto following a cadenza-like resolution—signal the importance that the tritone is to have in the passage that follows in which equidistant root movement brings the center of the octave to the fore.
Example 55. Liszt, Hungarian Rhapsody IX (1848), measures 325–68.
The key signature at the Presto says E-flat, but the listener has no way of knowing this. He questions whether E-flat is a tonic or a dominant. The E7 that precedes it could be an enharmonic equivalent of a German sixth, but this possibility clarifies nothing. In fact, it contributes to ambiguousness as its chord of resolution may be either a dominant or a tonic, or for that matter, anything else! However one may explain what happens here, E-flat begins to act and sound like a dominant in the interchange with its minor subdominant that follows. Liszt appears to cross the Rubicon in his exploitation of the ambiguity that is inherent in this relationship. We shall not pursue the point beyond making a timid proposal that E-flat remains the tonic despite the criss-crossing of tonal regions. A less timid proposal is that if the theorist allows himself to get confused by the ambiguousness of the situation, he misses the whole point of the passage.

Beginning at the Presto, a waggish, will-'o-th'-wisp bass-line which, as we have already observed, bears an obvious kinship with Heroischer Marsch's now distant i - bVII - bVI - V progression, carries
on a dialogue in the form of a musical sentence consisting of two four-measure phrases. Both phrases begin on E-flat. The bass-line works its way downward by whole-tones in both of them, first to the underside of a-flat a semitone below, and then to the upper side of a-flat a semitone above. The bass-line in the antecedent phrase yields to the tension that the "whole-tone stretch" down to g creates and pulls back to an a-flat - E-flat cadence (a half cadence?). In the consequent phrase, it goes down from a to a-flat which then turns to an Eb7 - ab cadence (a full close?).

The bass-line generates an extended whole-tone line in the repetition of the sentence. Beginning in measure 354, the antecedent phrase repeats. The bass-line doubles at the octave. Octaves also appear in the r.h. repetition. The consequent phrase, while beginning as a repetition, jolts the listener by denying the expected cadence. Instead of proceeding from a to a-flat as in the first statement of the consequent phrase, the bass-line continues on down from the center of the octave by whole-tones to traverse the entire e-flat octave. The whole-tone line created by this extension connects rotating mediants that divide the e-flat octave by major thirds (mm. 349-52). The points of articulation, root-position major triads, fall upon E-flat, C-flat, G, and E-flat. The progression extends yet another major third to C on which begins a sequential passage, the goal of which is d-sharp (i).

The segments of the sequence move by minor thirds from C. There is no change of harmony within the segments, each segment being an elaborate eight-measure play on a single major triad. Thus, as in the rotating mediants that precede the sequence, major triads articulate the
segments, the first being C and the second being A, the center of the octave. Upon proceeding to F-sharp, Liszt breaks the sequence in the strict sense of the term but nonetheless continues to d-sharp. The illustrative example does not show the progression from F-sharp onward. The chief unifying factor in the passage, and this includes the irregular sequence segment on F-sharp, is the perfect fourth. It assumes the shape as announced at the Presto, this being an upward leap in a dactylic rhythm.

Rotating mediants cast in the same progression that the whole-tone line connects (mm. 349–52) reappear in the approach to the final cadence of the Rhapsody. The progression, twice-repeated, does not retain the whole-tone line when it returns. It returns with tonicized points of articulation, the points being as before on E-flat, C-flat (now B), G, and E-flat.

Example 56. Liszt, Hungarian Rhapsody IX, measures 486–93.

A few retrospective observations will emphasize the point that Liszt begins the process of integrating equidistant factors in this early work, Hungarian Rhapsody IX. The resolution of E7, first to A
and then to E-flat, brings the center of the octave to the fore. A waggish bass-line beginning at the Presto generates a whole-tone line that connects the points of articulation in rotating mediant-guided by the augmented triad. The rotating mediant elide with a sequence guided by the diminished seventh. The root-position major triad dominates the harmony in the passage, the only minor triad in it being a-flat, the minor subdominant. Liszt exploits to the fullest (or perhaps beyond the fullest) the ambiguity evoked by a major tonic-minor subdominant relationship. This ambiguity couples with the tonal equivocations of equidistant root movement to hold diatonic functionality in abeyance. This feat is all the more remarkable when one stops to consider that at this stage Liszt cannot dispense with certain diatonic functions. Unequipped as yet to do without them, he takes the next best alternative which is to imbue them with ambiguity so that they will not interfere with his tonal thinking.

This is the last we are to see of octave zigzags in whole-tone shapes, there having been three examples of them in the works we have examined thus far. The zigzags consist of: 1) up a minor second, down a minor third in Grand Galop; 2) up a major third (there being two exceptions), down a perfect fourth in Hungarian Rhapsody VII; and 3) up a major second, down a major third in Hungarian Rhapsody IX. This review of the content of the zigzags shows that each successive example is a more forthright evocation of whole-tone sound. This is also the last time we are to see the I - VII - VI - V progression as a generative force leading to a whole-tone passage. The presence of these features in the whole-tone shape in Hungarian Rhapsody IX links it unmistakably with the steps in the evolution of the idea that precede it.
The prominence of the major triad in the passage links it with the preceding steps, particularly Heroischer Marsch, as well as the steps that are to follow in the next year. The significant feature of the ninth Hungarian Rhapsody's whole-tone passage, the feature that foreshadows whole-tone developments in the late works, is the coming together of the whole-tone and rotating-mediant ideas. This is the step in which Liszt begins to complete the field of equidistant associations. This step shows his concept of equidistance in its nascency. The whole-tone idea is not yet a coequal partner with rotating mediants in the concept. But the time is not far off when it is to attain a coequal status. This happens a year later in the Dante Sonata. There is one additional coming together of whole-tone sound and rotating mediants that precedes its coming of age in the Dante Sonata. This happens in the next example, Étude de Concert No. 3 in D-flat (Un sospiro). In this example, Liszt straightens out the octave zigzags of the previous examples and creates a pure whole-tone scale. The descending whole-tone line connects rotating mediants as in the ninth Rhapsody.

Étude de Concert No. 3 (Un sospiro) (c. 1848)

In addition to furnishing the first instance of a pure whole-tone scale (and this would be in Liszt's works), Un sospiro furnishes evidence showing the early use of two other scales, both of which had to wait for twentieth-century theorists to give them names. One of them, the octatonic scale, has already been mentioned in connection with the rotating mediants in Sonetto 104 del Petrarca. The other, the pentatonic scale, appears as the basis of Un sospiro's main theme.
The Main Theme

While the main theme in *Un sospiro* is what was later to be
called a pentatonic scale, this does not necessarily mean that Liszt's
use of it stems from the same aesthetic impulse that brought it into
practical usage in the twentieth century. It was, for him, simply one
of many gapped scales that he used to circumvent diatonicism. Our inter­
est in it here lies in his casting it as a symmetrical construction that
is a prototype of the basic set in *Unstern* and other late works.

The theme divides the octave into two perfect fourths, each of
which subdivides into a major second plus a minor third. The key regions
in which the theme appears in the composition divide the octave in pre­
cisely the same way the whole-tone construction divides it in the
approach to the final cadence. In both, the construction as well as the
choice of key regions, the influence of the augmented triad is readily
apparent. Following its initial statement in the tonic, D-flat, the
theme reappears virtually unchanged, first in VI (written as A) and
then in III (F). We may tabulate this information as follows:

<table>
<thead>
<tr>
<th>Key Region</th>
<th>Main Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>I (D-flat)</td>
<td>[ab bb db] [eb f ab]</td>
</tr>
<tr>
<td>bVI (A)</td>
<td>[e f# a] [b c# e]</td>
</tr>
<tr>
<td>III (F)</td>
<td>[c d f] [g a c]</td>
</tr>
</tbody>
</table>

The theme, somewhat transformed, appears first over a dominant
pedal and later, over a tonic pedal (Ex. 52, mm. 62-64). The major sec­
ond in the lower fourth reduces to a minor second and thereby changes
the minor third to major as the fourth remains perfect. The upper fourth
expands to a tritone because its lower member drops a minor second. Its
middle member moves upward a semitone to within a major second of the
top member. We may tabulate these changes as follows:

<table>
<thead>
<tr>
<th>Key Region</th>
<th>Main Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over Dominant Pedal</td>
<td>[g# a c#] [d f# g#]</td>
</tr>
<tr>
<td>Over Tonic Pedal</td>
<td>[db d f#] [g b db]</td>
</tr>
</tbody>
</table>

The formation of this theme, the basic set, and the changes that occur therein illustrate that Liszt's thematic transformation comes about through the expansion and contraction of intervals, even at this early date. His stubborn resistance to deviate appreciably from a basic set once he selects it leads to a certain austerity, especially in the late works. His detractors sometimes refer to this austerity as "Liszt's rhetoric." His admirers recognize that it foreshadows certain twentieth-century techniques.

The progressions over the pedal points consist of major triads. And this illustrates another feature of Liszt's early style. Ingenious harmonizations consisting of no chords other than major triads are not at all uncommon in his early works, this being, after all, yet another way to circumvent diatonicism. The progression over the tonic pedal moves from I (D-flat) to V/IV (D) to IV (G) to I. In like manner, the progression over the dominant pedal proceeds from the dominant to the center of the dominant octave and back again to the dominant. Later, in 1853 in his b minor Sonata, Liszt boldly moves to the final tonic triad from IV. In this earlier piece, IV already over a tonic pedal, progresses to the tonic, but this is not the conclusion. The tonic triad elides with the beginning of the first of three tertian chains that Liszt joins in the approach to the final cadence. The chain containing
The whole-tone scale, as we shall see momentarily, came as an afterthought. The question of chronology to which we alluded earlier arises because we cannot be certain as to when the afterthought came.

Tertian Chains

All three of the chains divide the tonic octave in descending progressions by thirds. Neither the dominant nor the subdominant appears in any of them. The first one divides it equally by minor thirds. The bass-line fills in each minor third with a semi- plus a whole-tone. The complete line forms the octatonic scale. Major triads articulate the divisions as follows: D-flat (I) - B-flat (VI) - G (§IV) - E (§II) - [D-flat (I)]. Brackets serve to indicate that the concluding tonic triad elides with the beginning of the second chain, the tertian divisions of which fall upon diatonic degrees of the D-flat scale as follows: [D-flat (I)] - b-flat (vi) - G-flat (IV) - e-flat (ii).

The descent continues following a brief pause, the concluding chain differing from the second one only in that it substitutes B-double-flat (bVI) in the place of b-flat (vi). The third chain leads into the final cadence in which III (F) is the penultimate chord.

The alternate conclusion (Ex. 58), another tertian chain, divides the tonic octave the way the principal key regions divide it in the main body of the piece: D-flat (I) - B-double-flat (bVI) - F (III) - D-flat (I). As the descending whole-tone scale spans two octaves in the bass, the chords in the r.h. ascend two octaves. Liszt arranges them so that the outer octaves outline F (III), the upcoming penultimate chord in the final cadence.
Example 57. Liszt, Étude de Concert No. 3 in D-flat major (Un sospiro), the approach to the final cadence, measures 62-77.

*Liszt also wrote down ... the following mystically hovering conclusion with major triads on each of the six degrees of the descending whole-tone scale ... to be performed ad lib. In the place of the conclusion in the principal text:
Gárdonyi and Szelényi, to whom we are indebted for this example, do not give its date in their edition of the work. Because all efforts to ascertain the date have been in vain, the question arises as to where the example fits into the chronology of events in the unfolding of Liszt's whole-tone experiment. The whole-tone passages in Hungarian Rhapsody IX spring from the same creative impulse. In both of them, whole-tones fill in major thirds between the roots of the articulating triads in rotating mediants, the crucial difference being in the way they fill in the interval. As we have observed, the bass-line in the Rhapsody looks to the past, its octave zigzags being related to Grand Galop and Hungarian Rhapsody VII. In Un sospiro, Liszt boldly straightens out the bass-line and descend through two octaves on a pure whole-tone scale. In view of this forthright move, it would seem safe to presume that Un sospiro follows the ninth Hungarian Rhapsody in the chronology of whole-tone events. But the question remains as to when Liszt added the alternate conclusion. It is entirely possible that he did not write it at the same time he wrote the main body of the piece. It could have been written later, even years later. This will seem the

more likely possibility as we continue examining the successive steps in the evolution of the whole-tone idea. In view of what happens in the steps that follow, the whole-tone scale placed in the chronological sequence at around 1848 appears to be somewhat anachronistic. But this is not the crucial factor that determines its place in the present discussion. The fact that the whole-tone shape happens in conjunction with rotating mediants is the feature that places it near Hungarian Rhapsody IX in the chronology of whole-tone events.

Un sospiro, its position in the chronology of events notwithstanding, is a significant landmark in the evolution of whole-tone sound. In this work, Liszt isolates much of the basic material that we are to find somewhat reduced and abstracted in his late works. We see this isolation most clearly in the bass-lines of the rotating mediants in the approach to the final cadence, the one a pure octatonic scale (descending), the other a pure whole-tone scale (descending), the one filling in minor thirds, the other filling in major thirds. We need add nothing more to the discussion of the octatonic scale that came up in connection with Sonetto 104 del Petrarca, except to recall that it subdivides equally in two ways: 1) by minor thirds and 2) by major thirds. More to the point, it possesses the capability of assuming many shapes by expanding and contracting its intervals. Liszt becomes increasingly aware of this capability as his style evolves.

In Hungarian Rhapsody IX, equidistant factors come together and give an isolated passage its shape. In Un sospiro, one sees them in operation in an overall structure. These preliminary essays lead to the Dante Sonata, a massive structure in which Liszt's handling of these factors comes of age.
Dante Sonata (1849)

Liszt "sketched [the Dante Sonata] as early as 1837 and played it in this form in Vienna in 1839; he revised it and gave it its present form in 1849."\(^1\)\(^{121}\) Despite all efforts to obtain the 1837 sketch, it is, as yet, not in hand for comparisons with the final version. A completely safe conjecture is that the whole-tone passage as quoted in example 59 does not appear in the earlier sketch because it is simply inconceivable that it could precede all of the whole-tone passages that we have examined thus far. When placed in a chronological sequence, on the other hand, it is totally acceptable as a logical, not to mention inevitable, development in the evolution of Liszt's whole-tone experiment.

Liszt's inspiration for this work, his own profound admiration for Dante notwithstanding, is a "poem by Victor Hugo called d'après une lecture du Dante,"\(^1\)\(^{122}\) thus, the full title of Liszt's piece: Après une lecture du Dante, Fantasia quasi Sonata. Sitwell writes of the work as follows:

This is a piece of inordinate length, and of tempestuous, stormy character. It is among the most remarkable productions in the whole of romantic art; and were it possible, by some magical transmutation of time, to hear Liszt play, this is one of the pieces that every lover of Liszt would wish to include in the programme. Nothing like it had ever been written before in music.\(^1\)\(^{123}\)

Sitwell does not go on to enumerate the work's unique qualities. We shall not do so here except to point out the quality that is our chief point of interest. In his Dante Sonata, Liszt writes a music that turns upon itself. Pervading the entire structure of the work, this quality

\(^1\)\(^{121}\)Searle, The Music of Liszt, p. 29.

\(^1\)\(^{122}\)Sitwell, Liszt, pp. 65-66.

\(^1\)\(^{123}\)Loc. cit.
suggests immobility. In more philosophical terms, it suggests the timelessness of eternity. We are to encounter the same quality in a late work, From the Cradle to the Grave, Liszt's last symphonic poem. In keeping with the promise made some time ago, the mention of this quality is not to lead into a philosophical exploration. As promised, the discussion of it will be in purely musical terms. And in the case of the Dante Sonata, it is possible to cite a specific musical term that evokes this quality: tritone centricity.

Evident in the opening measures of the piece, the center of the octave remains in the forefront of harmonic activity to the end. For one example that we are not to quote, in measures 150-77, Liszt moves from F-sharp (#III) to C (bVII) and then back again to F-sharp. A comprehensive analysis showing this and all of the other tritone cycles in the piece would take us too far afield. Our primary interest lies in the cycle in which whole-tone sound plays a vital part. We have seen this cycle already in abstract form (Ex. 1).

The task now is to show how it fits into the context of the whole piece. Four illustrative examples suffice to show how this happens, the first three being shapes growing out of the same diminished seventh chord. The opening measures (Ex. 59) show the first segment of a sequence guided by the chord. The chord returns in conjunction with rotating mediants (Ex. 60). The handling of the materials in this example creates a jagged tritone bass-line. The chord returns and guides another sequence (Ex. 61) that begins a tritone cycle. Fanning out from the center of the tonic octave (a-flat), it leads into the whole-tone passage which then completes the cycle by returning to a-flat. The fourth example (Ex. 62) shows that the whole-tone passage returns to
participate in the approach to the final cadence of the piece.

The Opening Sequence

Two diminished sevenths intervolve in the protracted sequential statement that begins the Dante Sonata. Combined, they make up the following octatonic scale:

\[
\begin{array}{cccccccc}
\text{a} & \text{b} & \text{a} & \text{b} & \text{c} & \text{d} & \text{e} & \text{b} & \text{f} & \text{b} \\
\text{f} & \text{f} & \text{f} & \text{f} & \text{f} & \text{f} & \text{f} & \text{f} & \text{f} & \text{f}
\end{array}
\]

The one connected by the lower line, the one beginning on a-flat, guides the sequence. The points of articulation in the sequence fall upon the cadences (tonicized major triads) at the end of each of its segments. Thus, the first cadence in the piece falls upon the center of the tonic octave, A-flat; the second falls upon B. Liszt dissolves the third segment of the sequence and thus avoids a cadence on D, the tonic. The other diminished seventh, the one that begins on a, permeates the segments themselves. Liszt introduces the members of this chord in the descending tritones at the beginning of each segment of the sequence, each of the tritone divisions of the octave descends a distance of two octaves plus a tritone. The descents, taken one after the other, complete a tritone cycle. The first one is on a - e, the second on c - f, and the last one completes the cycle on e - a. This tritone descent, a haunting call that unfailingly attracts the listener's attention, assumes many shapes during the course of the piece. In the excerpted passages that we are to examine, the tritone expands to a perfect fifth. The following example shows only the first segment of the sequence.
Rotating Mediants

The diminished seventh chord that guides the opening sequence returns to guide a passage of rotating mediants. This passage is a part of a transition that leads to F-sharp (♯III) which brings forth a majestic theme harmonized mostly with major triads. The key signature change from one flat to three sharps (m. 77) presumably heralds the coming of the F-sharp section, but it means nothing to the listener who hears little to affirm f-sharp as a tonic except for accents on bare octaves that outline the dominant of F-sharp. A more or less equal number of measures comes between each of the accents which fall first on c-sharp, then e-sharp, and finally on g-sharp. One point of interest in the intensely chromatic passages that come between the accented octaves is the division of the chromatic scale in an arrangement that allows each hand to play a whole-tone scale. While the scales do not evoke whole-tone sound, they betray a whole-tone influence. This arrangement is not uncommon in Liszt's piano works. Such an arrangement immediately precedes the excerpted passage of rotating mediants (Ex. 60.)

This passage shows a continually rising chain of rotating mediants. Its articulating points, root-position minor triads, fall upon the separate members of the diminished chord that guides the
progression. And the guiding chord is the selfsame diminished seventh that guides the sequence in the opening measures of the piece, namely, $a_{b} - b - d - f$. It appears minus one of its members in its role as the

Example 60. Liszt, Dante Sonata, measures 90-95.

intervening chord, the missing member in each case being the root of the minor triad that it follows. This arrangement creates a jagged tritone bass-line that ascends by minor thirds a distance of an octave plus a tritone. Note the falling fifth in a dotted rhythm in the l.h. in measure 95. This descending fifth, now perfect, recalls the tritone descents that begin the piece. The interval, now expanded, descends in accord with the root-position major triads that complete the transition to F-sharp (III). From B-flat - G (thrice-repeated), the transition continues as follows: E-flat - D-flat - A_{b} (this being the only triad not in root position) - F-sharp.

Whole-Tone Sound: A Participant in a Tritone Cycle

The diminished seventh chord, $a_{b} - b - d - f$, which, by now, one sees as a chief determinant of the overall structure of the Dante Sonata,
returns and guides another sequence (Ex. 61) that begins a tritone cycle. The sequence rises by minor thirds from a-flat to d. Upon reaching d, whole-tones descend a distance of an octave plus a tritone back to a-flat, and thus complete the tritone cycle. Root-position major triads articulate both the rising sequence and the descending whole-tones. They are tonicized only in the sequence. These are fleeting tonicizations and one must bear in mind that fleeting tonicizations do not establish keys except perhaps in a transient sense. An established key in this tritone cycle or, for that matter, anywhere else in the Dante Sonata, would be incongruent with the perpetual state of harmonic instability that Liszt sustains throughout the piece, this instability being part and parcel of a music that turns upon itself. It would, in short, nullify the whole effect. By the same token, strong, clearly articulated tonicizations would also be out of place in this piece. In this passage, Liszt mixes the tonicizing agents with chromatic non-harmonic tones.

Whereas the articulating triads come at the end of the segments in the sequence that opens the piece, they come at the beginning of the segments in this sequence. A-flat, the first point of articulation (m. 213), immediately dissolves into descending fourths and fifths which, though now perfect intervals, recall the tritone descents that open the piece. These descending intervals in the r.h. combine with a chromatically descending bass-line in a search that culminates upon reaching F#7, the dominant of B, the next point of articulation in the sequence. The rests that punctuate the search suggest a somewhat halting meandering that takes on the character of improvisation. Liszt sustains this character throughout the sequence by repeating the wandering search, albeit
a minor third above, in the segment that follows. Upon reaching D (m. 221), a question arises as to whether it is, after all, a point of arrival. The measures that follow convey the impression that if the improviser is not lost he is confused or at least indecisive as to how to continue. The fourths and fifths, generally a signal of the beginning of a transition, run rampant in "double stops" while D converts itself into a major-minor seventh and resolves to G⁴, hardly a decisive move. The change from G to g clarifies the situation not one whit, but it does bring forth a bass-line that suggests the bass-line in the upcoming whole-tone descent. A second try (mm. 224-26) changes the direction of the bass-line that underlies the subdominant chord, the minor subdominant, to which D sounds as a dominant. As opposed to the totally

Example 61. Liszt, Dante Sonata, measures 210-37.
Example 61. Continued.

confused ascending octaves in the first try, the bass-line in the second try, now descending octaves, clearly articulates the minor subdominant chord. Clarifying the resolution of a major-minor seventh built on D to g minor changes harmonic confusion into harmonic ambiguity. The listener
is uncertain as to the identity of D. Is it a tonic or a dominant? Whatever it is, the triple forte, the bold, forthright chords in the r.h., the thunderous bass-line, now correctly coordinated rhythmically and harmonically, all suggest arrival. Arrival in this case is a turning point, the beginning of the whole-tone descent.

In retrospect, one may understand the reason for the moment of indecision (if not chaos) at the point where the sequence arrives on D. It wants to continue. The improviser knows that continuing it is untenable. He knows that D is the tonic, although there may be lingering doubts concerning this point in the listener's mind. Moreover, he knows that whatever happens must continue from D, not F, the point on which another segment of the sequence would culminate if continued. As to how the whole-tone passage came into being, of course, no one knows, but it is entirely possible that it came as an inspiration of the moment. And this moment of decision is far removed from the one in the coda of Heroischer Marsch. For that whole-tone succession, there was no precedent. Much happens between the moments, and one cannot discount the maturing process that takes place during the interim. Beyond any question, it enters as a factor that determines basic shapes in the Dante Sonata. But it is not the only factor. This work, as Heroischer Marsch had done before it, creates its own harmonic law. If rotating mediants can ascend by minor thirds an octave plus a tritone from a-flat up to d (Ex. 60), why can another equal division of the octave (whole-tones) not descend an octave plus a tritone from d down to a-flat? They can and they do. Upon completing the cycle, A-flat sheds its third and descends in open fourths and fifths through two octaves. It then becomes a tritone by raising its root a semi-tone. The listener perceives, again in
retrospect, the "double-stops" upon reaching D as an abortive, premature descent. The descent at the end of the cycle, now correctly placed, signals an appropriate conclusion for an "open-ended" passage.

The listener clearly perceives whole-tone sound in the passage, even in the r.h. with its continual octave leaps and the change of position on each triad. Chromaticism resulting from the fact that the third of one triad moves up a semitone to the fifth of the next does not obviate whole-tone sound. Neither does the chromaticism in the l.h. Indeed, the l.h. strengthens the progression. While the root of the triad does not appear in the bass on the downbeat, the progression is the stronger in the rhythmic arrangement in which Liszt casts it. He places a rest in the bass on the downbeat and then comes into the root from a semitone below. The third of each triad begins the second-beat octave triplet, and from there the octaves continue chromatically up to the root. This arrangement places the fifth of the triad on the third beat. When the movement doubles from one to two triads per measure (m. 230), the l.h. begins to leap in octaves contrary to the r.h. In this way, the root of each triad, strengthened by its lower semitone, repeats to fortify the progression.

Part of the whole-tone passage returns in the final measures of the Dante Sonata. We have seen enough of Liszt's final cadences now to know that a return of this kind is a typical Lisztian procedure. Also note that Liszt moves to the major mode for the final section, a procedure that we have so often noted in connection with other compositions that he begins in the minor mode. The drive to the cadence begins with a lengthy play on the Neapolitan (Ex. 62, mm. 355-62) mixed with a tonic pedal that leaps in octaves in the r.h. The progression from the
Neapolitan to the tonic (m. 363) begins the final appearance of the whole-tone passage.

Example 62. Liszt, Dante Sonata, the approach to the final cadence.

Liszt treats it somewhat differently in the final measures so as to make it more climactic. The chief difference in treatment is in the l.h. which forcefully asserts the whole-tone progression in full triads in root position (roots doubled) on the first beat of each measure. It moves to a different position when it joins the r.h. in simultaneous
rising leaps on the third and fourth beats, except for D and A-flat which retain root-position status throughout the measure. This gesture is a final subtle reference to the tritone relationship that pervades the entire work. Only e-sharp remains following the abrupt interruption of the whole-tone succession (m. 368). But the leading tone, instead of going directly to the tonic, drops a fifth to echo the descents that have recurred throughout the work, now on the tritone, now on perfect intervals. The lower member of the descending fifth, f-sharp, becomes the fifth of vi (b) which then progresses by thirds to ii (e), and ii progresses directly to I (D). If we drop back to include the whole-tone succession, the entire cadential progression runs as follows: I (D) – bVII (C) – bVI (B-flat) – bV (A-flat) – III (F-sharp) – vi (b) – IV (G) – ii (e) – I (D).

Note in passing that Liszt permits the supertonic (ii) to stand as the penultimate chord in this cadence. In this work, Liszt does not feel any compulsion to make concessions to traditional harmonic practice as he did nine years before in the final cadence of Heroischer Marsch (1840). We shall recall that in the earlier work he tacks on a V – I cadence following the whole-tone succession. The dominant would be contradictory as a participant in the approach to the final cadence of the Dante Sonata because it would have the effect of sealing off certain tonal circuits that have remained "open-ended" throughout the composition.

The most important single development that the Dante Sonata brings forth is that the whole-tone idea becomes a coequal partner with rotating mediant in Liszt's concept of equidistance. The whole-tone passage in this work shows major triads behaving in precisely the same
way they operate in numerous passages of rotating mediants. We do not have to refer to other compositions for comparisons. The clearest and most convincing evidence is in the Dante Sonata. The whole-tone descent (Ex. 61) covers the same distance that the rising rotating mediants cover, namely an octave plus a tritone. We shall withhold further comment on this point as well as several others until we reach the summary at the end of this chapter.

As the study plan foretells, Liszt moves from major triads to equidistant chordal formations as a means of articulating whole-tone successions. The Dante Sonata marks the last appearance of the major triad in this role. The move to equidistant chordal formations is simply another evidence of Liszt's inexorable move away from diatonicism.

The Diminished Seventh Chord in Whole-Tone Progressions

Passages from the Grand Solo de Concert (c. 1849) and Transcendental Étude No. 10 (1851) illustrate Liszt's use of the diminished seventh chord in whole-tone progressions. The whole-tone idea assumes a strikingly similar shape in both situations. Whole-tone movement is in the l.h. in both passages, progressing upward in the Grand Solo and downward in the Étude. The same spacing of the chord members appears in each hand in both passages. Reading from the lowest note in each hand, the spacing falls into the following intervallic pattern: tritone, minor third, tritone. While the same diminished chord appears in each hand upon every change of chord, the chords progress chromatically in the r.h. in contrary motion with the whole-tone movement in the l.h. Liszt measures the passage in the Grand Solo; he does not measure it in the Étude.
The similarity of the shapes in the two examples suggests a similarity of purpose. This suggestion proves to be true upon examining both works. It is therefore unnecessary to show how each of the examples fits into its environment. A brief discussion of the Étude suffices. Among other things, the explanation of the Étude will recall the Grand Galop (1838) in which the dominant strives to free itself of the flatted sixth. It will show, moreover, that the flatted sixth has moved a long way in its fight for equal privileges since 1838. For one thing, perhaps because it is more secure, it is less brash in its demands. Whereas it adamantly refuses to yield to the dominant in the final cadence of Grand Galop, it yields graciously to its adversary in the
final cadence of the Étude after having been quite active in the main body of the piece.

It perches atop the dominant seventh more or less triumphantly following approximately twenty measures of mischief in which it is an almost omnipresent pedal point, first in the l.h. and then in the r.h. (Ex. 65, mm. 134-35). A pause. The flatted sixth is no longer in the chord following the pause. The dominant seventh slyly evades its adversary and jumps quickly to its tonic from a staccato eighth-note.

Example 65. Liszt, Transcendental Étude No. 10 in f minor, measures 131-35.

But the tonic itself is not stable! It keeps dissolving into a diminished seventh chord, $b - d - f - a^b$. And the strengthening (tonicization) that it receives from its dominant fails to stabilize it. The diminished seventh still threatens. In the measures following the tonicization, it vacillates. Now it is a tonic; now it is a diminished seventh. Even with the help of the weakened dominant which makes two valiant but brief attempts to strengthen its ally, the tonic finally submits to complete, and apparently final, dissolution. It makes one last effort to stabilize itself by attempting to become a pedal point. But even before the pedal point dissipates into nothingness, diminished sevenths have already started their triumphant surge. They sweep upward over a
descending chromatic line that spans the $b$ ($\#4$) octave. The diminished sevenths, themselves unable to stabilize the situation after wresting control from the impotent tonic, bring their short-lived moment of triumph to an end in a dramatic pause of indecision. Then they dissolve precipitately in a churning mass of whole- and semi-tones. Another dramatic pause. Has the tonic, after all of this, survived?

The first sound after the pause is a lone flatted sixth in a bare octave in the bass. An ominous signal that the struggle is to resume? As it happens, far from being a menace, it is a source of strength for the dominant. It alternates with the sharped fourth so as to approach the dominant (c) by semitones from above and below. The regenerative power that comes from the tonic's being thus strengthened brings with it a confirming crescendo. As the sound increases in intensity, a seventh joins its dominant. The stage is set for three thunderous $V_7 - i$ progressions. But this is not the end. The tonic, now made potent by a revitalized dominant, turns to its adversary, $b - d - f - a_b$, there now being no possibility of its being dissolved by this retrospective gesture.

We see in this cadence that the protracted passage of diminished sevenths does not destroy $f$ minor as a tonic. On the contrary, the re-entry that follows the temporary dissolution of all key feeling is a forceful assertion of $f$ minor, perhaps even more forceful than a more conventional approach could bring forth. One sees in this Étude that the search for tonality, key, identity, or call it what you will, to which Grand Galop alludes in a rather brash manner becomes a potent form-building force by the time Liszt becomes a mature composer. One sees, moreover, in this Étude that whole-tone sound becomes a factor that
contributes to this force.

The Augmented Triad in a Whole-Tone Progression

A single passage from the set of variations on a theme by Bach, *Weinen, Klagen, Sorgen, Zagen* (Ex. 66), illustrates Liszt's use of the augmented triad in a whole-tone succession. There are no other passages of this kind. And there is a question as to whether the augmented triad is really the vehicle that carries whole-tone sound in this passage. But, at this stage, as pointed out in the discussion of Hungarian Rhapsody VII, the questions regarding the vehicle are of little consequence. Sound, whole-tone sound, is the important factor here. If one must choose a vehicle from the stockpile of common chords, there are two possibilities, the choice between them depending upon how one interprets the "non-harmonic" tones. It could be either the minor triad in the position of the sixth or it could be the augmented triad, the latter being the more probable choice. The listener is perhaps not so aware of the sound of consecutive augmented triads at the beginning of the passage as he is once it gets in motion. In any case, the major thirds doubled at the octave in the lower voices move by whole-tones. These major thirds, incidentally, suggest an affinity with the whole-tone passage in the Dante Sonata. However else one may explain the passage, this arrangement creates two pure whole-tone scales doubled at the octave that descend through a distance of an octave plus a minor sixth. The clash created by the off-beat pitches, the "non-harmonic" tones, tends to accentuate the whole-tone sound created by the descending thirds. The clash(es), in any event, seem to assure that the chromatic line in the uppermost part will not intrude to the extent that it nullifies whole-tone sound.
Liszt's theme for his variations derives from a basso ostinato that Bach uses in two works: 1) the Crucifixus in his b minor Mass and 2) the first part of his Cantata, Weinen, Klagen, Sorgen, Zagen. Bach's ostinato, four measures in length, descends chromatically from the tonic down to the dominant (Ex. 67). Liszt's adaptation of the ostinato (Ex. 68) begins with an introduction that fills in major thirds chromatically in two ways, the one in the l.h., the other in the r.h. In a two plus two scheme, the l.h. fills in the following major thirds: 1) ab - c, 2) gb - bb, and 3) fb - ab. The thirds descend by whole-tones, the whole-tone movement being reinforced by accents on the top member of each third. These accents coincide with full chords in the r.h. The chords in the r.h.—major triads in the position of the sixth—fill in a major third with a chromatic descent from f down to d-flat. Longer note values in the r.h. in a rhythm that corresponds generally to the rhythm of Bach's motive spreads the filling-in of the third over six measures in the r.h. part. The accented chords in measures 2 and 4 fall
upon the dominant and the major subdominant, both of which are in root position. Upon reaching d-flat, the r.h. declines to continue the chromatic line. The fact that the chord in measure 6 may be labeled as a vi\(_{4}\) means little. The important point is that the twice-repeated chord on d-flat sets the stage for the entry of the theme-proper which begins on d-flat. Liszt's adaptation of Bach's ostinato (mm. 8-12) descends chromatically from the flatted sixth degree down to the raised seventh degree. In short, it spans a diminished seventh. And the spanning of this interval in this manner gives the work its basic shape. The introductory measures foreshadow the treatment of the theme in the
main body of the piece. It is, on the one hand, intensely chromatic. Its divisions and subdivisions reveal that other equal divisions of the octave also enter as structural determinants.

Searle writes of Liszt's variations as follows:

Liszt [wrote] a short prelude on the same theme a few years previously, and here, as in the Prelude and Fugue on BACH [cf. pp. 16-17], we find the advanced use of chromaticism which ultimately derives from the more experimental passages in Bach. The variations, though beginning more or less in the manner of a normal passacaglia, continue much more freely . . . . After a return of the main theme, which rises to a climax, the work ends with a statement of the chorale 'Was Gott tut das ist wohlgeltan.'

The variation cited in example 66 is but one illustration of the freedom with which Liszt treats his adaptation of Bach's ostinato. In striking contrast to some of the variations which are much more elaborate and, as Searle notes, intensely chromatic, this variation consists of two descending lines, three if we count each of the whole-tone lines separately. Liszt doubles them all at the octave. The relationship between the chromatic line in the uppermost voice in each hand and the main theme is rather self-evident. Less obvious perhaps is the force that generates the whole-tone lines in the lower voices. At least, it is less obvious here than in some of the previous examples in which it is difficult, if not impossible, to separate the sound from the force that creates it. Recall, for instance, the influence of the I - bVII - bVI - V progression upon some of the earlier whole-tone passages. At this stage in Liszt's development, it is no longer essential for him to create the sound with unique manipulations of traditional progressions. He has created his own methods. To be sure, unique manipulations of

124 The Music of Liszt, pp. 100-01.
materials remain as an essential factor but he now has an underlying force of his own making that guides and controls them. And we have observed him in the act of discovering some of the features of this underlying force. The steps in the unfolding of his whole-tone experiment have plotted the path of discovery.

In connection with this experiment, we have observed numerous examples of rotating medians dividing the octave now by minor thirds, now by major thirds. We have observed, moreover, various means of filling in the equal thirds chief among which are the octatonic and whole-tone scales. Out of these discoveries evolves a concept, a mechanism for controlling the compositional act—the variable third. This is the force that is at work in Liszt's Weinen, Klagen Variations. And it works in conjunction with his adaptation of Bach's motive. It is not yet a basic cell in the sense that we are to see it in the late works. Many other abstractions and reductions must come before we get to these works, but we are halfway there. The significance of the third is in evidence at the outset as we have already observed in the description of the opening measures. If one understands the treatment of the third in the beginning measures, it goes a long way toward explaining the chordal formations in the entire piece. We must not overlook the fact that the motive is also present in these measures. It undergoes many transformations that come about through the expansion or contraction of the basic cell. The principal changes come with each variation. Expansions affect vertical as well as horizontal formations in the whole-tone variation (Ex. 66). A chromatic line coexists with the expansions, the whole shape being an ingenious combination of equidistant factors. We have already observed one other equidistant formation in this work in
which the major third is the chief determinant of shape—the rotating mediants that follow the chorale setting and lead into the final cadence (Ex. 37). We shall encounter no further examples of rotating mediants in this shape in this study, but we are to encounter a much-abstracted form of the rotating-mediant idea in the late works.

And this is the last time that we are to see Liszt's whole-tone idea assuming a shape in which consecutive chords progress by whole-tones. From this time onward, the idea appears in the majority of the examples as a single line. If it appears in conjunction with chords, the chords are whole-tone formations and they do not betray any connections with the past by progressing in consecutive chains. Indeed, this radical change has already taken place in Der traurige Mönch (1860), two years before Liszt wrote his Weinen, Klagen Variations. And this radical change marks the beginning of the second phase of the evolution of Liszt's whole-tone experiment. The absence of consecutive chords in whole-tone shapes signals the change. While the totally equidistant construction in the Weinen, Klagen variation (Ex. 66) looks to the future, the consecutiveness of its chords betrays its connections with the past. And because of these connections, it marks the end of the first phase of the evolution of Liszt's whole-tone experiment.

Summary of the First Phase of Liszt's Whole-Tone Experiment

Perceptible whole-tone sound appears in nine of Liszt's works in the first phase of his whole-tone experiment. Two of these works appear just as Liszt was beginning his years of transcendental execution (1839-47). The years that separate these early works from the others are not so much of an interruption of his whole-tone experiment as it may seem.
It is not as though Liszt shelved these pieces and forgot about them; he continued playing them during these years. With one exception, the remaining works that contain whole-tone passages appeared during the first two years in his period of retrospection (1847-51).

The Evolution of Whole-Tone Shapes

The ever-changing shapes that the whole-tone idea assumes in the first phase of its evolution show Liszt in the act of first isolating and then clarifying and refining one of his ideas. One sees the idea, on the one hand, gradually shedding vestiges that identify it with the nascent shapes and on the other, gradually becoming an integral part of a complete field of equidistant associations. And in regard to the latter, one sees the idea joining forces with the rotating-mediant idea as a coequal partner in a concept of equidistance. The shapes themselves signal the joining of forces. The whole-tone idea finally assumes a shape that unquestionably relates to shapes the rotating-mediant idea had been assuming for some time beforehand. But, typical of Liszt, this happens only once. Upon becoming a fully accepted, integral part of the field of equidistant associations (the act of acceptance having at the same time completed the field), the whole-tone idea moves on to shapes that are totally equidistant constructions. There follows a summary of how all this happens.

Nascent whole-tone sound first appears in a zigzag bass-line (up a minor second, down a minor third) in sequential dominants in Grand Galop chromatique (1838). Dissonantal clashes between this line and the chords on offbeat accents in the r.h. evoke the sound. The second whole-tone passage emerges in the coda of Heroischer Marsch in ungarischem
Styl (1840) in a shape that results from the interaction of two progressions consisting mainly of root-position major triads, the one by thirds, the other by seconds (I - bVII - bVI - V). Whole-tone sound appears in this work in the shape of root-position major triads descending by whole-tones. Traces of the shapes that the whole-tone idea assumes in these early works remain discernible as the idea continues evolving. In fact, the last vestiges of these early shapes do not disappear entirely until Liszt dispenses altogether with chords as vehicles for projecting whole-tone sound.

The whole-tone shape in Hungarian Rhapsody VII (1847?),\(^ {125} \) though somewhat reduced, bears a striking resemblance to the shape in Grand Galop. Zigzags (now up a major third, down a perfect fourth) in the bass-line and the similarity of voicings in the upper parts betray an obvious kinship between the examples. On the other hand, the chords are not sequential dominants as in the earlier example. In fact, one cannot be certain as to the identity of the chords. Whatever they are, they move stepwise by whole-tones. This feature would seem to betray a connection with the shape in Heroischer Marsch.

A zigzag (now up a major second, down a major third) bass-line, now a more forthright evocation of whole-tone sound, also appears in the whole-tone passage in Hungarian Rhapsody IX (rev. 1849). This zigzag grows out of a capricious handling of a bass-line that bears an obvious kinship with the I - bVII - bVI - V progression in Heroischer Marsch. This work brings forth a significant development; it is the first example in which whole-tone sound appears in conjunction with rotating

\(^ {125} \) Question marks following dates in this summary recall questions of chronology that came up in the main body of the discussions.
mediants. The zigzags fill in the interval of a major third, the distance between the roots of the major triads that articulate the rotating mediant. This same shape appears in Étude de Concert No. 3 (Un sospiro) (c. 1848?) with the important difference that Liszt dispenses with zigzags, straightens out the bass-line, and allows it to descend two octaves on a pure whole-tone scale. The line connects the roots of rotating mediants as it had done in Hungarian Rhapsody IX. This is to emphasize that the whole-tone idea has not at this time separated from its parent material and become an independent device free of all ties with the past. A significant step in this direction takes place in the example that follows. Its significance relates to its shape as well as its function, the two being practically inseparable.

Liszt makes the whole-tone idea a coequal partner with his rotating-median idea in the Dante Sonata (rev. 1849), a status that it is to retain throughout the rest of his career. He does this by articulating whole-tone sound with root-position triads in the same way he had been articulating rotating mediants for the better part of a decade before this time. The interaction of seconds and thirds in Heroischer Marsch foreshadows this significant event. The coming together of the two ideas in Hungarian Rhapsody IX and Un sospiro signals its inevitability. Compared with the use of the whole-tone idea in these earlier works, its use in the Dante Sonata is far more sophisticated. It is now an integral part of a concept involving all of the equal divisions of the octave. The intervolutions of two diminished seventh chords in the opening measures serve notice that the concept is to be the chief determinant of shapes throughout the piece. The examples cited in the discussion bear this out. One of the shapes, rotating mediants guided
by the same diminished seventh that guides the opening sequence and articulated by minor triads, rises from $\flat$ through an octave and continues on up to $d$. Another shape, whole-tones articulated by major triads, begin on $d$ and descend the same distance—an octave plus a tritone—down to $\flat$.

The Dante Sonata marks the last appearance of the major triad in a whole-tone construction in Liszt's works. From the major triad, Liszt moves to equidistant chordal formations. Whereas there is no doubt that the diminished seventh is the equidistant chord in the whole-tone constructions in Grand Solo de Concert (c. 1849) and Transcendental Étude No. 10 (rev. 1851), doubts arise as to the identity of the basic chord in the Weinen, Klagen whole-tone variation. But there is no doubt that the variation is a totally equidistant construction. And there is little doubt that its shape, while bearing a kinship with earlier shapes, results from the expansion of a basic cell, the interval of a third. As noted in the discussion, this is not yet the sophisticated device that it becomes in the late works. A clearing away of extraneous material is necessary in order for the variable-third mechanism to operate in the way it operates in the late works. We shall observe this clearing away of material in the second phase of the evolution of Liszt's whole-tone idea. An understanding of Metabolones, Liszt's process of alteration, will shed some light upon the question of how and why it happens. A definition of this process comes by way of introducing the discussions pertaining to the second phase.
CHAPTER IV

METABOLONS

Chords in Rameau's theory attain their identities in relation to a given context (tonality) in which more or less universally accepted affinities govern chord successions. Alter the scale and redirect these affinities and harmonic progression in the sense that it is understood in Rameau's theory ceases to exist. The increasing use of chromaticism among the Romantic composers raised many questions. The question as to whether the scale determines the harmonic result or vice versa became the subject of much controversy in the latter half of the nineteenth century. The debate furnished the impetus for numerous searches for new scalar materials. The searches continued well into the twentieth century, the most notable being Bartók's investigation of the folk music of his native Hungary and its neighboring countries. While questions regarding scalar materials receded into the background as more and more composers turned to the series, questions pertaining to the alteration process survived the debate and remained a major concern among progressive composers. Sessions notes its significance among the composers of his generation as follows:

More than any other factor, perhaps, it [alteration] has gone into the making of what is most characteristic in the music of the twentieth century, and has raised the questions to which the most gifted composers of today are seeking, and sometimes
finding, their individual answers.126

Liszt raised his own questions in regard to this matter and found some answers as a result of his continuing efforts to develop new scalar concepts in which alteration is a basic process if not the guiding principle. If one should seek to trace his influence upon twentieth-century procedures, the search would inevitably lead to focusing upon this process. The task would be less complicated than it might appear at first because Liszt's scalar thinking reduces to a basic concept that underlies practically all of his scalar formations. What is more, he builds into the formations a feature that induces chromaticism while, at the same time, providing a means of controlling it. The whole-tone scale, the octatonic scale, the pentatonic scale—all of the scalar materials that we have seen emerging out of a diatonic context—function in the concept. The changes that take place in the scalar materials spawn the expansion-contraction mechanism to which we have referred on many occasions. Liszt came to think of this—his scalar materials as well as the means of controlling them—as Metabolons. A brief definition of this process furnishes vital background information for an understanding of the final phase of the evolution of Liszt's whole-tone idea. The definition, somewhat pivotal, will also tie in with the discussions of the first phase.

The lifeblood of Metabolons is the variable tetrachord. The tetrachords on which Beethoven bases his harmonic system furnish Liszt with a point of departure for developing it. They consist of two constants and two variables, the latter being the second and third degrees

of the lower tetrachord and the sixth and seventh degrees in the upper tetrachord (cf. Ex. 3, p. 51). The tetrachords conjoin disjunctly with a major second between them. We shall see as we move along that all of this changes in Liszt's system. The tetrachords in his system may consist of any set of intervals and they may join together in a variety of ways. We may refer back to the main theme of Un sospiro for an illustration. This theme subdivides into two tetrachords each of which, reading upward from the lowest pitch, subdivides into a major second plus a minor third. When the theme appears, first over a dominant pedal and later over a tonic pedal, chromatic inflections transform it without, at the same time, destroying its basic shape. In the transformation, the outer members of the lower tetrachord remain fixed; the upper tetrachord expands to a tritone. The inner members of both tetrachords change. What happens to this theme is a simple, forthright illustration of Metabolons in one of Liszt's early works.

While this process appears in Liszt's early works, one cannot overlook his fascination with the Greek greater perfect system as a factor influencing what it became in his late works. István Szélnyi, one of the foremost Hungarian authorities on matters pertaining to Liszt, furnishes evidence that shows Liszt in the act of formulating his ideas on the Greek system. In "Der unbekannte Liszt," Szélnyi tells of examining Liszt's sketchbooks in which Liszt, around 1855-56, noted down the complete system of ancient Greek music . . . described the various [variable] tetrachords, the principle of joining them together, the modes that arose from their use, the practice of making the tetrachord larger [extending the scale] by adding a tone [Pros-lambanomenos], and, what is most significant in the evolution of Liszt's tonal system, a detailed description of Metabolons,
transmutableness [a free translation of Umwandelbarkeit].^7

This compound German word refers to the changes that can take place through the use of the variables within the tetrachords in the different genera of the Greek system, there being three: diatonic, enharmonic, and chromatic. Later on in his study, Szélényi explains that the combination of tetrachords appear in Liszt's works in three forms, through setting them next to each other [disjunct, with a major or minor second between them], coexistence of a common tone, the so-called synaphe [conjunct], or through changing enharmonically the common tone.128

Szélényi's reference to Fétis's influence makes it necessary to interpolate one final comment on this matter before continuing with examples illustrating the various combinations of tetrachords in Liszt's works. Liszt himself tells us of the long-lasting influence of Fétis's ordre omnitonique in a letter in 1859.129 According to his letter, the influence continued through the Weimar years. The letter postdates by three years or so the sketchbook entries that Szélényi brings forth. In another letter in 1867, Liszt reveals attitudes that place Fétis's influence in a different perspective. First, he mentions the article on him in Fétis's Biographie universelle des Musiciens (second edition) and elevates it "to the foremost place" among such articles; "however," he continues:

whilst really thanking [Fétis] for raising the importance of my works which he connects with 'one of the transformations of Art,' I shall not have the false humility of accepting some of his valuations as definitive judgments. Of all the theorists whom I know, Mr. Fétis is the one who has best ascertained and defined progress of harmony and rhythm in music; on such chief points as these I flatter myself that I am in perfect accord with him. For the rest he must excuse me for escaping in

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127"Der unbekannte Liszt," 113.
128Ibid., 315. 129Supra, n. 111, p. 139
different ways from the critical school whose ways he extols. According to his theory Art ought to progress, develop, be enriched, and clothed in new forms; but in practice he hesitates, and kicks against the pricks,—and for all that, would insist that the 'transformation' should take place without in the least disturbing existing customs, and so as to charm everybody with the greatest ease. Would to Heaven that it might be so.\(^{130}\)

While taking into account the full significance of the sketchbook entries that Szélényi brings forth, one must not surmise that they stand as evidence of Liszt's first encounter with the Greek system. Fascination with the Greek system was nothing new. Liszt would have known of the Italian Renaissance theorists' fascination with the Greeks, if from no other source, from his scholarly friend, Carl Weitzmann. He would have known of Vicentino's theory that the diatonic, chromatic, and enharmonic genera in the Greek system should be the basis for composition. Moreover, he would have known of Vicentino's building a keyboard instrument, the arciembalo, to prove the practicability of his theory. It is entirely possible that the time of Weitzmann's thorough search pertaining to this question coincided with the time of Liszt's sketchbook entries.

As to the instruments built to prove the practicality of the Greek system, Weitzmann quotes from Michael Praetorius's *Theatrum instrumentorum, Part II—de Organographia* (1620) as follows:

I have seen at Prague . . . at Herr Carl Luyton's (the organist), a clavicymbal (Clavicymbalum universale seu perfectum), which was made accurately and carefully in Vienna thirty years ago (i.e., about 1589), in which not only all the semitonia as bl, cl, dl, fl, gl, etc. were doubled, but also an extra semitonium \[sic\] was added between e and f, which must have been necessary in the genera enharmonico, so that it had, in the four octaves from C to three-lined c'''', 77 claves all told.\(^{131}\)


\(^{131}\) *A History of Pianoforte Playing*, p. 231.
Weitzmann then adds the following note:

More than 30 years before [and this would be before 1589], similar chromatico-enharmonic instruments had already been constructed, and then described by Nicola Vicentino [1511-c. 1573] in his ... book published in Rome, 1555: "L'antica musica, ridotta alla moderna prattica," and also by [Gioseffo] Zarlino [1517-90] in a book ... published in Venice, 1358 [the correct date is 1558]: "Istitutione harmoniche," p. 140.132

Liszt's fascination with the Greek system did not lead him to experiments involving nineteen pitches to the octave. The forward impulse that it provided for him was that it made practicable the principle of mutability. He adapted this principle to his twelve-pitch octave. He adapted it by varying the intervallic sets within the tetra-chords and by joining the sets in a variety of ways. Szélényi cites numerous examples by way of illustrating the various combinations. While one may not always agree with the way that he subdivides the sets, all of his illustrations together project a compelling argument for his thesis that Metabolons is the key that unlocks the mysteries of Liszt's thematic process.

Szélényi does not make much effort to show how the various sets bring about transformations; the purpose of his study does not demand it. Moreover, he tends to orient his study to Liszt's influence upon twentieth-century procedures. In a somewhat sketchy approach, the discussion that follows places Metabolon in a different perspective. While it illustrates the various ways that Liszt combines his tetra-chordal formations, it demonstrates that the scalar materials that emerge out of Liszt's procedures in his early works enter into the formations. We shall see, for example, that the octatonic scale continues to enter

132Loc cit.
the formations to the end of Liszt's career, albeit in an increasingly abstract form. We shall also gain some insight into how the basic sets bring about transformations. We shall, of course, hold in abeyance showing how the whole-tone scale enters the formations until we reach the discussions of the final phase of its evolution. The present discussion orients to necessities arising in the discussions of the final phase.

Sonata in b minor (1852-53) and Vallée d'Obermann (rev. 1855)

The scalar formations that open Liszt's b minor Sonata illustrate two of the tetrachordal combinations to which Szélényi refers, the first being disjunct with a major second between the tetrachords, the second being conjunct (Ex. 69). It is of interest, indeed, highly relevant, to note that the Sonata antedates the sketchbook entries as does Funérailles which comes up for discussion momentarily. The variables in these tetrachords, to continue with the discussion of the present example, are not too distantly removed from the ones in Beethoven's system, the striking difference being that Liszt builds the scales on the flatted sixth degree. The first scale in the opening measures of Liszt's Sonata is the same scale (transposed) that appears on the minor

Example 69. Liszt, Sonata in b minor (1852-53), tetrachordal formations in the opening measures.

\[ \text{Example 69} \]

133"Der unbekannte Liszt," 315.
side of the tonal spectrum (cf. Ex. 3). The second scale contracts because $f$ and $c$ deflect to be in accord with the key signature. Juxtaposition of the two sets builds in mutability.

For present purposes, one illustrative example (and this one, Ex. 70, is our own) suffices to show some of the practically limitless possibilities that Metabolons brings forth in the main body of the piece. The example, a skeletal bass-line, shows a string of tetrachords, all disjunct, with differing intervallic structures. The numbers over the brackets in the example indicate the following structures: 1) whole- $f$ semi- $f$ whole-tone, 2) all whole-tones, and 3) all semitones. Perhaps the most striking feature in the construction (at least, the one that is most relevant to our problem) is the stringing together of three consecutive whole-tone tetrachords joined disjunctly by semitones.

Example 70. Liszt, Sonata in b minor, a skeletal bass-line, measures 256-64.

Some rather startling results arise out of Liszt's joining traditional tetrachords by a semitone. We interpolate an example from Vallée d'Obermann, the sixth number in Années de Pèlerinage. Première Année: Suisse, to illustrate this point. The major tetrachords joined by a semitone (Ex. 71, bracketed in the bass-line) are a tritone removed
one from the other, the final chord of resolution in the first being $e_b^6$ (m. 27), in the second, $a^6$ (m. 31). The final pitch in the second tetra-chord, $c$, moves down another semitone to $b$, the dominant of the home tonic. Call the chord built on $b$ a minor dominant ninth if you will. While it certainly leads back to the tonic, its shape relates to the shapes of the chords in the cadence points that immediately precede it.

In at least one later work—Mosonyis Grabgeleit (1870), the seventh and last number in the Historische ungarische Bildnisse set—Liszt ends phrases in arpeggiated minor ninths that never resolve, even irregularly, as one must term the resolution in the present example in the event that one insists upon imposing the laws of the diatonic system upon a harmony that generates its own laws. In order to show more clearly how the laws operate in this passage, a continuation of the example shows that Liszt moves away from the tonic, $e$, to $g$ minor (m. 37), and then on $b$-flat (m. 41). The eight-measure period beginning at Tempo I is a repetition.

Example 71. Liszt, Vallée d'Obermann (rev. 1855), measures 25-41.
of the opening bars of the piece. The end of the period is a tritone removed from its beginning. The presence of the rotating-mediant idea in the passage is rather self-evident, and, perhaps, in the light of the foregoing explanations of the building in of the principle of transformation, so is Metabolons.

Changing the interval between traditional tetrachords from a major to a minor second, as the foregoing example illustrates, redirects traditional affinities. Change the interval between whole-tone tetrachords from a semi- to a whole-tone and a whole-tone scale results. We shall see this happening in the late works—the creation of a whole-tone scale through expansion—but not in the same way that we see whole-tone tetrachords emerging in the Sonata. The difference in the way the basic set behaves in the Sonata and in the late works (expansions and contractions, among other items) indicates no change in basic principle. Whereas in the Sonata expansions relate back to tetrachordal formations which, while not representative of traditional usage, betray obvious connections with the past. In the late works, as we shall see, expansions and contractions relate back to a basic cell. This cell, the third, appears in Liszt's works in various spellings including the diminished fourth, the enharmonic equivalent of the major third. A rather sketchy explanation of certain factors figuring in the evolution of this basic cell follows in connection with the discussion of Funérailles.

Funérailles (October, 1849)

Szelényi illustrates the third combination of tetrachords—changing enharmonically the common tone—with Funérailles, the seventh number in Harmonies poétiques et religieuses. Note once again that this work
antedates Liszt's sketchbook entries pertaining to the Greek system. This symmetrical construction is of particular relevance because its intervallic structure foreshadows basic sets in many of Liszt's late works, Unstern and Bagatelle sans tonalité among them. The construction is basically an augmented triad in which minor seconds lie next to all of its principal tones. Each of the diminished fourths (major thirds) subdivides into a semi- a whole- a semitone. Noting that this particular scalar fragment "appears very frequently in Liszt's late works," Szélényi terms it a "locrian minor tetrachord." We accept his term without question.

Example 72. Liszt, Funérailles (October, 1849), main theme and its tetrachordal subdivisions.

As to the origin of the scalar fragment, we must direct attention to the past and recall once again that we observed it emerging in connection with the discussions of two previously cited examples. Both of the examples show the octatonic scale as a bass-line in rotating mediants, the first being Sonetto 104 del Petrarca (c. 1846), the second being.

134"Der unbekannte Liszt," 316.
135Ibid., 317. 136Supra, pp. 122-23.
We noted in the discussion of the Sonetto that the octatonic scale subdivides equally in two ways—by minor thirds and by major thirds (diminished fourths). We noted further the inchoate use of the augmented triad as a structural device in this work. And now, in Funérailles (1849), we see Liszt linking conjunctly two major-third (diminished fourth) cells that undoubtedly have their origin in the octatonic-scale bass-lines in the earlier compositions. They now enter into a symmetrical construction that takes on a new structural significance. The locrian minor tetrachord continues to enter into various combinations from this time onward in Liszt's works. We shall, as noted, encounter it in Bagatelle sans tonalité, this being its final appearance in works that enter into the discussions in this study. We cannot, of course, trace its entire evolution, but it will add appreciably to the understanding of forthcoming discussions if we cite one additional example showing it in an evolutionary stage that lies considerably beyond Funérailles. The example is Aux Cyprès de la Villa d'Este I, the second number in Années de Pèlerinage. Troisième Année.

Aux Cyprès de la Villa d'Este I (1869 or 1877)


At first sight, a connection between Funérailles and Aux Cyprès I is perhaps not self-evident. While the later composition is a strikingly different shape from the earlier one, it employs the same basic set of intervals. As in Funérailles, the basic structural unit in

Example 73. Liszt, Aux Cyprès de la Villa d'Este I, measures 1-16.

Aux Cyprès I is the augmented triad \((\text{b}b - d - f\#)\). Likewise, but not in like manner, minor seconds surround the principal tones of the triad. The changing \(f\# - f\#\) in this arrangement creates a dominant that vacillates from major to minor. The example shows only the first vacillation. The spelling of the repeating figure in the bass, \(\text{bb} - f\#\), betrays Liszt's tetrachordal thinking. The examples that follow show that the filling-in of the diminished fourth, the basic cell, generates the thematic material in Aux Cyprès I. Brackets over the tetrachordal formations facilitate showing how this happens. If the basic cell expands to a diminished fifth as in measures 51-54 (Ex. 74), scalar divisions

Example 74. Liszt, Aux Cyprès de la Villa d'Este I, measures 41-58.
Example 75. Liszt, Aux Cyprès de la Villa d'Este I, measures 131-66.

continue to be alternate semi- and whole-tones just as they had been all along in the locrian minor tetrachord. Asterisks over the brackets indicate the formations employing these divisions. Example 74 shows the first statement of the main theme. Example 75 shows the return of the material plus a continuation. Note the change of mode from minor to major. To be sure, Metabolons transforms the meaning of these terms. The change of key signature from two flats (g) to one sharp (G) shows the face of Liszt that turns to the past.

A look to the past clarifies other features in Aux Cyprès I that show the face of Liszt that turns to the future. While the view in the foregoing discussions is somewhat sketchy, it conveys some insight into the fact that the augmented triad as a structural device has an evolution of its own in Liszt's works. This view brings forth only a few of
the essential factors that are in evidence throughout its evolution, namely, the octatonic scale and Metabolons. The octatonic scale, to summarize, enters Liszt's works first in the Sonetto (c. 1846) and later in Un sospiro (c. 1848) as bass-lines in rotating mediants. While Liszt uses the augmented triad prior to the Sonetto, this piece evidences his first use of it as a structural device. Un sospiro illustrates the influence of the augmented triad in a different way. In this piece, it is the chief determinant of the principal key regions, D-flat, A, and F. It also guides the rotating mediants in the alternate conclusion. The octatonic scale would seem, beyond any question, the source for the basic cell—the locrian minor tetrachord—in the symmetrical construction on which Liszt bases Funérailles. And now we see the symmetrical construction in a strikingly different shape twenty or more years later in Aux Cyprès I. What is more, the construction with its built-in principle of transformation—Metabolons—permeates its entire structure. This brief sketch of the evolution of the augmented triad furnishes vital background information that will broaden the scope of the forthcoming discussions of the final integration of equidistant factors in Liszt's late works. Among other items, we shall see the final reductions of the octatonic scale entering into the basic set of Bagatelle sans tonalité (1885).

Ballade No. 1 in D-flat (1845-48) and Csárdás Obstíné (1884)

We have not thus far shown Metabolons in a late work. Csárdás Obstíné is one of the clearest examples for this purpose. Its basic set

139 Supra, p. 179.
illustrates a type of tetrachordal combination not yet mentioned. It is a hexachord that Liszt treats as interlocking tetrachords. It also illustrates another point that Szélényi brings forth in the sketchbook entries. And this is Liszt's noting the modes that arose from the use of mutable tetrachords. Hexachordal formations also appear in Liszt's early works. Ballade No. 1 in D-flat enters the discussion by way of illustrating an early use of them. They appear in conjunction with the

Example 76. Liszt, Ballade No. 1 in D-flat major (1845-48), measures 173-84.

rotating-median idea in the approach to the final cadence. Strip the passage of its harmonic elaboration so as to leave only a scale-line
[bracketed in Ex. 76] and it bears a remarkable kinship with the approach to the final cadence in Csárdás obstiné (Ex. 77). One must, of course, keep in mind that almost forty years separate the pieces. While the language is different, the method is strikingly similar. The hexachordal segments connect with a semitone in measures 176 and 178, the segments being sequential. From bVI (A) (m. 174), the sequence moves first to vii (c) and then to ii (e-flat), the last segment being twice-repeated before moving on to IV (G-flat) in measure 182.

The excerpt from Csárdás obstiné showing the approach to the final cadence follows immediately so as to facilitate comparisons with the Ballade. This will mean that we must then cite additional examples explaining its tetrachordal formations. For the moment, note the descending phrygian scale beginning in measure 283 and the change in 287.

Example 77. Liszt, Csárdás obstiné (1884), measures 279–316.
The basic set in Csárdás obstiné, a hexachordal formation, subdivides into two interlocking tetrachords (Ex. 78a). This set in its original form dominates the first fifty measures. The bass adds an a-sharp with the upper tetrachord, a b with the lower one (Ex. 79, mm. 17 and 21). The set in its original form returns in the following
measures: 105-45 and 180-95. Chromatic inflections transform the set in measure 50 (Ex. 78b). It returns in this form in measures 145-79. Another transformation takes place in measure 66 (Ex. 78c) by way of leading into an episode in which the tetrachord contracts to a major third (not shown in the example). All of this creates the following formal scheme: A B C A B C, A being the basic set, B the first transformation, and C the episode. This does not include what happens from measure 235 on to the end of the piece.

Example 78. Liszt, Csárdás obstané, transformations of basic set.

In the repetition of the thematic material that comes after the change of key signature in Aux Cyprès I, the intervals remain the same. As a result, the repetition of the material is a semitone above the initial statement (compare Ex. 74, mm. 46-58 and Ex. 75, mm. 131-42). Keeping the same intervals entails the use of a proliferation of accidentals. When the key signature changes from two to five sharps in the Csárdás (Ex. 78d), the basic set returns on the same basic pitches as in Aux Cyprès I, but, unlike the earlier piece, the return in the Csárdás does not retain the intervals of the initial statement. There are no accidentals in either statement. In each statement, the set remains in strict accord with the key signature. To be sure, this statement refers to the set as it appears in the r.h. The presence of an a-sharp in the l.h. in the initial statement (Ex. 79) does not alter the main point. And this is that the set as it appears following the change of key signature (mm. 235-50) is yet another transformation of the basic set because its intervallic structure changes. Besides, Liszt is evidently thinking of some kind of inversion here. The upper tetrachord becomes a whole-tone
tetrachord in the return. The intervals of the upper tetrachord in the initial statement shift to the lower one in the return. The shifting of structures is more evident in the return of the first transformation. In its initial statement (Ex. 78b), the upper tetrachord is locrian minor with alternating semi- and whole-tones. In the return (Ex. 78e), the lower tetrachord assumes this shape. While the perfect fourth in the lower tetrachord of the initial statement shifts to the upper part of the set in the return, its internal structure does not remain the same as it does in the locrian minor tetrachord when it shifts position.

The truth of the matter is that no one could ever decipher the enigmatic puzzles arising out of Liszt's use of the various modes. While he may not have fully understood that Renaissance theorists misinterpreted the Greek system and changed the direction of the modes from descending to ascending forms, he understood and utilized the mirroring of modes as a means of making available different sets of variables by deflecting from the mode in its original form to its mirrored counterpart. This kind of process seems to be in operation in the Csárdás. We cannot, as noted, settle the matter, but it is worthwhile to point out a few possibilities. The phrygian mode mirrors the Ionian mode, the latter, of course, being our major scale. It is possible that the principal tetrachord in the basic set (Ex. 80a) mirrors the B major scale (Ex. 80b). This possibility carries with it the difficulty of explaining the C-sharp in the lower tetrachord. It would be C-natural in a complete mirroring of the B scale. One may perhaps explain C-sharp in the set by pointing out that Liszt treats it as an auxiliary tone, a lower neighbor, in the set.
Example 80. Phrygian (a) mirrors Ionian (b).

The deflections that take place when the key signature changes indicate that Liszt is thinking of the descending set as phrygian or a mirroring of ionian. This possibility becomes more credible when the set extends through a full octave in the approach to the final cadence (Ex. 77, mm. 387-90 and mm. 295-98). The scale is clearly phrygian in the measures cited. Liszt deflects to the principal tetrachord in its original form following each of these complete scales. This is the point that we noted at the outset. The change is from \( a^\# - g^\# - f^\# - e^\# \) to \( a^\# - g^\# - f^\# - e \). This deflection points up, among other things, a feature that one observes often in Liszt's transformations. And this is that the center of the octave (in the Csárdás, e-sharp) functions as a pivotal axis for his tetrachordal deflections.

To continue with observations pertaining to this question, c-natural appears in the approach to the final cadence (Ex. 77, m. 299) as the top member of a descending tetrachord, and this would be a continuation of a mirroring of B. From c, Liszt moves up chromatically to d-sharp, the rising steps being the top member of a descending tetrachord. If one accepts the mirroring theory, this would be a gradual deflection back to B. In measure 315 (Ex. 77), a-sharp in the \( a^\# - b - c^\# - d^\# \) tetrachord begins to behave precisely as c-sharp behaves in the initial statement of the basic set, i.e., as a lower neighbor or, in this instance, a leading tone. Finally, it disappears altogether and
d♯ - c♯ - b, first as a unit separated by rests and then as individual tones separated by rests, begins to sound as B major. The piece ends convincingly in B. Note that the final tonic chord is in the 6/4 position.

Summary

Metabolons, a built-in principle of transformation based upon the variable tetrachord, is Liszt's invention. Fétis's ordre omnitonique, by Liszt's own admission, opened certain avenues to him in his search for a process of alteration. But, again by Liszt's own admission, Fétis's influence falls into a different perspective following Liszt's Weimar years. Szélényi furnishes substantial evidence that the Greek greater perfect system provided a powerful forward impulse for Liszt's development of Metabolons. And, though it was not mentioned in the foregoing discussion, we must not forget that Beethoven's thematic process is an integral part of the perpetual commandment that the master's works gave him. Liszt inherited a set of variables and worked to develop a system in which any set of variables may enter into a basic set.

His basic sets link tetrachordal formations in several ways, namely: 1) disjunctly with a minor or a major second between them, 2) conjunctly by means of a common tone, and 3) enharmonically, the common tone being the connective link. The formations may also interlock as illustrated in the basic set in the Csárdás.

The summary of the locrian minor tetrachord as a basic cell that appears following the discussion of Aux Cyprès I foretells the importance that this cell is to have in the discussions of the final phase of the evolution of the whole-tone idea. The discussion of the Csárdás illustrates that Liszt's understanding of the mirroring of modes lends
to Metabolons a certain flexibility. This feature will be of particular importance when we come to the discussion of Unstern in the upcoming chapter.
PHASE II.

THE EVOLUTION OF WHOLE-TONE SOUND IN LISZT'S
ORIGINAL PIANO WORKS

CHAPTER V

THE WHOLE-TONE SCALE AS AN INDEPENDENT COMPOSITIONAL
DEVICE: INTEGRATION OF EQUIDISTANT ASSOCIATIONS

With one exception, Der traurige Mönch (1860), all of the compositions that enter into the discussions of the second phase of the evolution of Liszt's whole-tone idea are late works. And with one exception, all six of these works fall into a four-year period, 1881-85, the exception being Sursum corda (1877), the seventh number in Années de Pèlerinage. Troisième Année. The chronological order of the compositions following these exceptions continues as follows: Première Valse oubliée (1881), From the Cradle to the Grave (1881), Mephisto Waltz No. 3 (1883), Unstern (the last years), and finally, Bagatelle sans tonalité (1885). Liszt composed Unstern some time after From the Cradle to the Grave and some time before the Bagatelle. Thus it could exchange position with the Mephisto Waltz, the positioning of these two interim works not being a crucial issue. Unstern occupies the penultimate position in the chronological sequence because it pairs with the Bagatelle to illustrate Liszt's final integration of equidistant factors. The overriding consideration in the discussions, as prescribed in the study plan, is to
show how Liszt moves inexorably toward the integration of equidistant associations in these works. We shall, in short, continue projecting the evolution of whole-tone sound as a continuous experience.

And it becomes more and more evident as we move along in the discussions that it is, indeed, continuous. For one thing, most of the whole-tone passages polarize around the same set of pitches, namely: b, c, d, e, f, and a. For another, they behave in some instances in a strikingly similar manner. Similar behavior, as manifested by similar shapes, is most evident in *From the Cradle to the Grave* and *Unstern*. Note that the pitches are basic pitches. As they stand, they do not evoke whole-tone sound. Chromatic inflections, specifically, *Metabolons*, transform them into many basic shapes, whole-tone shapes among them. Note the absence of g. Curiously, this pitch does not enter some of the whole-tone formations. This means, among other things, that the reference to the whole-tone scale in the chapter heading is not altogether accurate. These basic pitches appear in many of Liszt's late works other than the ones that enter into the present discussion. One combination drawn from them—b - e - f—appears with such frequency that Szelenyi calls it "Liszt's musical signature." 140

The knowledge gained by defining *Metabolons* in Chapter IV expedites explaining how Liszt builds his whole-tone shapes as well as how he fits them into the environments in which they occur. In the discussions of the first phase of the evolution of the whole-tone idea, it was necessary to show first how Liszt brought his basic materials into being. Recall, for example, the intervolutions of two diminished sevenths in the

140 "Der unbekannte Liszt," 322.
opening measures of the Dante Sonata (cf. p. 183) and how they create the basic material on which Liszt builds the work, and how, moreover, they bring the center of the octave to the fore as a structural determinant. We observed Liszt time and again creating his basic materials in his early works in a variety of ways. This—the creation of basic material at the outset of a composition—is no longer necessary in the late works. They are self-contained in basic sets; Metabolons brings them into play. While we shall deal with individual basic sets as we come to them, it is worthwhile noting in a more or less general way how these basic pitches—b, c, d, e, f, and a—bring into play the complete field of equidistant associations. Doing this will be tantamount to enumerating certain features that are to come up in the forthcoming discussions. At the same time, it will tie in with certain features that came up in the first phase and thus, albeit implicitly, show that the last phase in the evolution of the whole-tone idea is a continuation of the first.

The capability of the basic pitches to transform themselves into diminished seventh chords is self-evident. To obtain one, flat the a. To obtain another, sharp b, d, and f. This capability makes it no longer necessary to juxtapose two diminished sevenths at the outset as in the Dante Sonata and many other early compositions. Besides, the basic pitches turn into other equidistant formations. Consider the thirds in the basic set of pitches as basic cells. Fill in the minor third with a semi- plus a whole-tone and join two such cells disjunctly with a semitone between and a fragment of the octatonic scale results. Expand the minor third to major and fill it in with whole-tones. Join two such cells conjunctly and a whole-tone scale results. Drop every other note in the expanded formation and an augmented triad results. The octatonic scale,
also present in the basic set of pitches, we have already seen as a filler for the locrian minor tetrachord. Thirds guide sequences in the first phase of the whole-tone experiment. They continue to guide sequences in the second phase, but in a different way. The segments of the sequences, instead of progressing by equal thirds (rotating mediants), now progress either by semi- or whole-tones so as to fill in basic cells, the cell being in the one the minor third; in the other, the major third. In the case of the latter, we shall encounter only one example, and this will be in Der traurige Monch which comes up momentarily for discussion. A sequential progression filling in the minor third chromatically, on the other hand, is a common feature in Liszt's late works.

One of the equidistant formations emerging out of the basic set of pitches deserves special mention because we are to encounter it frequently in the works that enter the discussions of the second phase. The formation is an enharmonic equivalent of the so-called French sixth—\( b - d\# - f - a \). The uses of the chord that we are to observe have no connection with its traditional uses. It is, quite simply, a whole-tone

Example 81. Liszt, Invocation (1847), measures 72-110.
Example 81. Continued.

chord. And Liszt understood and used it as such as did Debussy who followed him. Because we had no occasion to illustrate the early usage of this formation, it is worthwhile citing an early example that shows it at the moment of its entry into Liszt's method as yet another device to
evoke immobility or timelessness. **Invocation** (1847), the first number in *Harmonies poétiques et religieuses*, furnishes the example. The basic chord in the passage (Ex. 81)\[b - d\# - f - a\] is the selfsame chord that we are to encounter under somewhat different circumstances in the forthcoming discussions. Make any member of this chord the "root," i.e., place it in any inversion and its basic intervals remain major seconds and major thirds. Add this fact to Liszt's penchant for creating tritone centricity and the result becomes two chordal formations, one built on b, the other on f, that vacillate through twenty measures (mm. 91-110). The example runs to considerable length in order to show all of the vacillations, bracketed, as well as the ever-changing thirds, also bracketed, that lead up to them. Another chord emerging out of the aforementioned basic set of pitches\[b - c\# - f - a\] appears frequently in the second phase, sometimes in a close alliance with the chord just described, sometimes not. We see it first in **Der traurige Mönch**.

**Der traurige Mönch** (October, 1860)

As noted elsewhere, **Der traurige Mönch** is not an original work for solo piano. It is, as described in the subtitle, *A Ballad by Niccolòs with melodramatic piano accompaniment for declamation*. Its presence in this study is somewhat disruptive in a sense because Liszt's use of whole-tone sound in this piece is quite different from all the rest of the examples. Nonetheless, despite a certain discomfort arising from its presence, it enters for good reasons. First of all, it is insofar as available evidence proves, the first extensive use of a whole-tone scale harmonized with whole-tone chords. Secondly, while it is not a functional use of whole-tone sound such as that described in the original
piano works, it brings forth features that we are to observe in the final works. In this connection, it is a curious fact that seventeen years separate Der traurige Münch from these final works. In this piece, Liszt uses whole-tone sound in a simple, forthright manner to evoke the supernatural. He is not the first to use it for this purpose. Insofar as available evidence shows, Glinka’s opera Russlan and Ludmilla (1842) is the first use of whole-tone sound for this purpose. It is also the first work to make use of a pure whole-tone scale. Thus, this hybrid work—Der traurige Münch—gives rise to the occasion of making a few brief comparisons between Liszt and the Russians so as to place Liszt’s whole-tone experiment in its proper perspective.

Liszt met Glinka when he went to Petersburg in 1842. He “played at sight from the manuscript full score of ‘Russlan.’”¹⁴¹ And, typical of Liszt, he set to work forthwith to transcribe a portion of the opera for piano. For this, he chose Chernomor’s March about which Gerald Abraham comments: "It is no wonder that Liszt was struck by it . . . . It is absolutely original."¹⁴² Glinka’s opera, based upon one of Pushkin’s early poems, brings forth a magical, fairy-tale world. The scene that concerns us here takes place in Act IV in Chernomor’s dwelling. Chernomor, a dwarf, holds Ludmilla captive, having abducted her in Act I. Russian arrives to free her. Chernomor casts a spell over her and she falls into a deep sleep. Russian’s magic sword assures that he emerges as the victor in his struggle with the dwarf, but he is unable to awaken


Ludmilla. To be sure, all ends happily in Act V when Russlan with a magic ring given him by Finn, the wizard, restores Ludmilla to consciousness.

Example 82. Glinka, Russlan and Ludmilla (1842), Act IV, Chorus:
Verloren, verloren.
Example 83. Glinka, Russian and Ludmilla, Act IV, Chorus: Verloren, verloren.

Glinka makes use of the whole-tone scale to evoke an appropriate atmosphere for the magical goings on in Act IV. The key is E major (Ex. 82). A whole-tone scale fills in the tonic octave at the beginning of
the passage. A similar filling-in of the dominant octave follows thereupon. The second descent is on a different whole-tone scale. The second whole-tone scale appears later in the act where it fills in the g octave (Ex. 83). While the whole-tone scale appears in tremolo strings in both passages, it shifts to the high strings in the second passage. Note that the woodwinds outline the augmented triad in all three descents. The shift in register in the woodwinds is from high to low. Following both of these extraordinary passages, Glinka proceeds in solidly based E major harmonies.

As to the question of how much influence this opera exerted upon Liszt's whole-tone experiment, the evidence that has accumulated thus far in this study indicates that it was negligible. Nascent whole-tone sound appeared in Liszt's works before he knew Russian and Ludmilla. When he resumed his whole-tone experiment, his own early examples seem to be the principal impetus for the continuation. Besides, he makes whole-tone sound an integral part of the complete field of equidistant associations. Mussorgsky, who, to be sure, adapted whole-tone sound to his own needs, appears to be the only Russian who understood Liszt's use of the device.

Various preliminary investigations seem to point to a reciprocity between Liszt and the Russians. Both Calvocoressi and Abraham discuss the relationship along these lines.\textsuperscript{143} Calvocoressi makes numerous references to Liszt's influence upon Mussorgsky in his book on Mussorgsky and his works.\textsuperscript{144} Szabolcsi presents convincing evidence that Liszt

\textsuperscript{143}Supra, notes 141-42, p. 237.

\textsuperscript{144}Modest Mussorgsky: His Life and His Works (New Jersey: Essential Books, Inc., 1956).
knew the music of the Russians. One particular note of interest that he brings forth is that Liszt "was thrown into a veritable fever by Mussorgsky's Nursery Cycle." He also notes that "there is no indication of Liszt ever having become acquainted with Mussorgsky's masterpiece, the Boris Godunov." But Mussorgsky, without any question, knew Liszt's Invocation (Ex. 80). A comparison between this work and the "Coronation Scene" in Boris (Ex. 84) indicates, if nothing else, a certain affinity in the tonal thinking of the two composers. A thorough investigation of the relationship between Liszt and the Russians is long overdue. While it detains us from resuming the discussion of Der traurige Mönch, it is worthwhile to cite one example that indicates the need for such an investigation. In his résumé of the evolution of whole-tone sound from its beginning to Debussy's time, Helmut Seraphin cites only two examples that are not Russian works: Liszt's Der traurige Mönch and Das Geisterschiff, a Symphonic Ballad by Carl Tausig, one of Liszt's most gifted students.


146 Ibid., p. 35.
Seraphin goes on to point out:

As one sees, all of the composers are Russian [Glinka, Russian and Ludmilla, 1842; Vietinghoff-Scheel, Overture to the opera Damon, 1859; Dargomijsky, The Stone Guest, 1868; Mussorgsky, Boris Godunov, 1871; Rimsky-Korsakov, The Snow Maiden, 1880; and Tchaikovsky, Pique Dame, 1890] except Liszt and Tausig who were however influenced by them.\textsuperscript{147}

As one sees, Seraphin almost totally ignores Liszt's whole-tone experiment. Of the works that he proposes, only two of them could have possibly influenced Liszt's \textit{Der traurige Mönch}. We have discussed Glinka's opera. Of the other work, Vietinghoff-Scheel's Overture, Liszt writes in the summer of 1860, a few months before he wrote \textit{Der traurige Mönch}:

The Overture in question is not wanting either in imagination or spirit. It is the work of a man musically much gifted, but who has not yet sufficiently handled his subject.

Of the whole-tone scale that he jots down in the letter, he writes:

It is nothing but a very simple development of the scale, terrifying for all the long and protruding ears, that Mr. de Vietinghoff employs in the final presto of his overture (page 66 of the score).

Tausig [he continues] makes pretty fair use of it in his \textit{Geisterschiff}.\textsuperscript{148}

While one must certainly concede that Glinka's opera and Liszt's dramatic monologue spring from a similar aesthetical impulse, the discussion of \textit{Der traurige Mönch} which follows shows that Liszt's use of whole-tone sound from a technical standpoint is a logical step in his own development of the whole-tone idea. The discussion runs along the following lines. We must first know something of the text. It is here that


we shall see affinities with Russian. The discussion of the music, while correlating somewhat with the text, orients to the features, already enumerated, that we are to encounter in the second phase of the evolution of Liszt's whole-tone usage.

The Text

The scene of Lenau's Ballad is in Sweden in a nine-century old tower, long since abandoned to stand its own against the elements. Legend has it that a specter in monkish garb haunts the tower. And, as it is told in the region, the specter has a sorrowful mien and that whoever looks the monk in the eyes also becomes sorrowful and dies. A storm rages. A wandering knight who has lost his way spurs his black steed toward the tower to bed down for the night, preferring the company of ghosts to the wind and rain of the storm. As he sleeps and as he dreams, his horse, terrified by the sight of the monk who appears in a bright glow, awakens him. The knight summons up his courage, looks the monk in the eyes, apprehends his sorrowful mien, and reacts with compassion and pity. He questions the monk as to what could cause such profound sorrow. The monk's lips begin to move slowly in an effort to reply. Apprehensive that he might learn of horrifying mysteries if he permits the monk to reply, the knight, terrified, commands the specter to remain silent. The specter vanishes. The morning dawns. The knight departs on his horse, never to speak again. On death alone he must brood. Nothing tempts his horse as he wends his way. All is over for rider and steed. Woeful sorrow pervades the atmosphere as darkness closes in. The monk beckons from

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149 *Infra*, Appendix II, a literal translation of the complete ballad, pp. 296-98.
every bush. The horse wanders into the depths of the lake.

The Music

Liszt set Lenau's Ballad to music in October, 1860. The words, declaimed not sung, enter at times with the piano, at times alone. The piano enters alone in only three short passages in the main body of the piece. The first of these passages comes when the declamer describes the howling wind of the storm. Rising chromatic octaves in the l.h. fill in

Example 85. Liszt, Der traurige Mönch.

![Example 85](image)

Example 86. Liszt, Der traurige Mönch.

![Example 86](image)

de the tritone (b - f) (f - b) while the r.h. alternates an augmented triad (f - a - c♯) with some of its chromatic neighbors as shown in example 85. Liszt states the generative chord for this passage—b - c♯ - f - a—in the introductory measures (Ex. 87, m. 13). When the knight confronts the monk, the piano and spoken parts appear alternately alone. In both solo
piano passages, minor triads alternate with augmented triads, first softly to underscore the knight's compassion for the monk, and then fortissimo when the knight apprehends the profound sorrow in the monk's eyes. Example 87 illustrates only the second of these short passages. It, too, relates back to the piano introduction (Ex. 87, mm. 14-16).

Example 87. Liszt, Der traurige Mönch, piano introduction, measures 1-17.

\[ \text{Example 87. Liszt, Der traurige Mönch, piano introduction, measures 1-17.} \]

Liszt casts Der traurige Mönch in a loosely constructed three-part form. The piano introduction, twice-repeated, the second time varied when the spoken part enters, returns in yet another variation to
conclude the Ballad. All of the variation takes place in the r.h. This is to say that the ascending whole-tone scales appear in the l.h. in all three statements. A short contrasting section, not cast in whole-tone harmonies, need not concern us here. The most striking difference that distinguishes this work from the others that enter the whole-tone experiment is that it begins with an extended whole-tone passage. This difference betrays the difference in purpose. Here, the sound sets the mood. Another unusual feature in this introductory passage is the ascending whole-tone scale, this being the first instance of rising whole-tones in Liszt's works.

The introductory passage is sequential. The segments of the sequence, each twice-repeated, descend by whole-tones and fill in a major third (diminished fourth). While the l.h. completes the sequence in the strict sense of the term, the r.h. turns to a different chord in the last segment. In the first two segments, the chord in the r.h. is a tritone filled in with a major third plus a major second. In the last, it changes to an augmented triad and this generates the chord to which we have already referred in measure 13. The alternating minor and augmented triads in measures 14-17, as pointed out, recur throughout the piece. This chord—\( b - c^\# - f - a \)—and the alternation of minor and augmented triads we shall meet again in Unstern. The basic pitches—\( b, c, d, e, f, \) and \( a \)—that are so prevalent in the second phase of the whole-tone experiment enter into the basic set of Sursum corda, the next step in the second phase which projects us seventeen years into the future.
The home tonic in *Sursum corda* is E. A persistent, almost omnipresent pedal point on e keeps reminding the listener of this fact as dissonant tensions continue mounting. An ever-increasing intensity augments the tension. The tensions, instead of resolving, finally dissolve in whole-tones doubled at the octave in each hand (Ex. 90, mm. 61-66). The e pedal returns immediately following the whole-tone dissolution. In the approach to the final cadence, the Neapolitan appears over the tonic pedal arranged so as to produce maximum dissonance (noise!) (Ex. 89, mm. 81-84). A brief return to the principal theme interrupts the tonic pedal (mm. 85-92). Alternating dominant-tonic harmonies sound over it when it returns (m. 93). Finally, the tonic sounds alone to conclude the piece.

Liszt builds the dissonant tensions with an ever-changing set of basic pitches. He states the pitches and the means of handling them in the first eight measures (Ex. 88). The principal chord in these beginning measures is the dominant seventh, thus the piece begins on firm footing. It begins on a dominant pedal in bare octaves that sets the ever-present repeated eighth-notes in motion. The upper b continues repeating to sustain the dominant pedal through the first eight measures after which it yields to the tonic. The lower b moves upward stepwise to fill in b – d#, the lower third in the dominant seventh. A third voice-part enters in the r.h. to fill in f# – a, the upper third in the dominant seventh. The main theme consists of two basic cells—a major second and minor third. A leap of a seventh is a most significant feature in the main theme. The filling-in of the third in the main theme, bracketed in the 1.h. (mm. 5-8) is in contrary motion to the filling in
Example 88. Liszt, *Sursum corda* (1877), opening measures.

![Opening measures of Liszt's *Sursum corda*]

Example 89. Liszt, *Sursum corda*, Neapolitan over a tonic pedal, measures 81-84.

![Neapolitan over a tonic pedal in Liszt's *Sursum corda*]


![Whole-tone octaves in Liszt's *Sursum corda*]
of the thirds in the r.h. The rising thirds in the inner parts of the r.h. change continually, and the changes are similar to the ones that take place in the descending thirds in the main theme. Example 91 shows these changes as well as the ones that take place in the second and seventh, the other motivic intervals. The second is at various times major,

Example 91. Liszt, Sursum corda, transformations of the main theme.

91a. mm. 9-22.

91b. mm. 23-36.

91c. mm. 37-44.

91d. mm. 45-52.

91e. 53-62.

91f. mm. 63-65.

91g. mm. 66-70.
minor, or inverted. So is the seventh which, in addition, is sometimes diminished. As to thirds, they are sometimes major, sometimes minor. At other times, Liszt expands the third to a perfect fourth or contracts it to a diminished third as in example 91c. Example 91f shows the transformations that lead into the whole-tone octaves. The cells, the second and seventh now inverted, join either disjunctly or conjunctly (bracketed in the example) to create a stepwise line, the steps being up or down in accord with the cellular divisions. The third expands to major in the latter part of example 91f, its filling-in being major seconds. Finally, Liszt joins disjunctly two such cells and creates a descending whole-tone scale in the latter part of example 91g. Refer back to example 90, measures 69-70. To be sure, the r.h. ascends in whole-tones (Ex. 90, mm. 65-68). The tonic pedal yields to fortissimo dissonances (m. 63). The lower g-flat in the r.h. attempts to hold its own. It changes enharmonically to f-sharp (m. 65) and finally drops out altogether (m. 68), whole-tone octaves having appeared in both hands in measure 66. Whole-tones dissolve the accumulated dissonances into nothingness thus averting any necessity for resolving them. They also "clear the air" as it were for the approach to the final cadence. The appearance of the Neapolitan, already mentioned, harks back to an early use of this chord. We encountered it in Hungarian Rhapsody VII (cf. p. 185) and spoke at that time of possible antecedents in the works of Schubert and Chopin. Frequently Liszt uses augmented sixth formations in the same way, i.e., over a tonic pedal to bring forth noisy dissonances. We might also mention that pedal points such as the one appearing in Sursum corda are not uncommon in Liszt's final period. Expanding the third to major and connecting two such cells to create a whole-tone scale is the kind of
thing that does not happen in *Der traurige Münch*. We shall observe it happening in varying situations through to the end of the whole-tone experiment. This is the face of Liszt that turns to the future. Some rather self-evident features in this work, the emphasis upon the dominant in the opening measures, for example, show the face that turns to the past. We shall see in the upcoming late works that this face turns more to the future. The dominant, long since abandoned as a key region, is not present even as a tonicizing agent in the last works that we are to examine.

**Première Valse oubliée** (1881)

Whole-tone activity in the *Première Valse oubliée* takes place in the approach to the final cadence. It will not be necessary to show all of the transformations in the basic set in order to explain the whole-tone formation as it was in *Sursum corda*. The basic set in the *Valse* (Ex. 92) is a symmetrical arrangement which, despite the presence of two common tones, Liszt treats as two tetrachordal formations. (Ex. 92). The

Example 92. Liszt, *Première Valse oubliée* (1881), basic set.

![MIDI file](image_url)

intervals in the set are the same reading from the center in both directions just as they are the same if read both forward and backward. The set returns at the end to conclude the piece (Ex. 94). Unadorned single-line cadences such as this one in the *Valse* are not at all
uncommon in Liszt's late works.

These pitches—b, c#, d#, e#, and a—sounding simultaneously through the use of the pedal create whole-tone sound in the approach to the final cadence (Ex. 94, mm. 183-95). These pitches, we shall recall, are the basic pitches that we referred to some time ago. Note the

Example 93. Liszt, Premiere Valse oubliée, measures 174-84.

Example 94. Liszt, Premiere Valse oubliée, measures 183-209.
absence of g. The f-sharp pedal point does not obviate whole-tone sound in the passage. Example 93 shows Metabolons at work in the measures preceding the excerpt. It overlaps with example 94 for the sake of continuity.

In the approach to the whole-tone passage, the hexachordal formation (Ex. 93, mm. 174-76) which divides into two interlocking locrian minor tetrachords contracts into a five-note tritone formation in measures 176-78. Consisting of various intervallic structures, these tritone formations rise chromatically from c# - g# (mm. 176-78) to d# - a (mm. 182-84). This last formation sheds its f-sharp in the following measure to become a part of the whole-tone chord--b - c# - d# - e# - a.

From the Cradle to the Grave (1881)

From the Cradle to the Grave is more commonly known as Liszt's thirteenth and last symphonic poem if, indeed, it is known at all. It appears in this study because it is an original piano work. Liszt composed it in "1881 for piano solo and transcribed it for piano duet the same year."150 The work divides into three parts: I. The Cradle, II. The Struggle for Existence, and III. To the Tomb: the Cradle of the Future Life. It contains some of the longest whole-tone passages in Liszt's works. In fact, there are two rather long passages, one at the end of the second movement, the other at the beginning of the third. The whole-tone chord that appears in the approach to the final cadence of the Première Valse oubliée is the basis for both formations, g being added in the second passage. We shall resist the temptation to digress into

philosophical explorations relating to the fortissimo unresolved dissonances on the whole-tone chord at the end of *The Struggle for Existence* and the transition to a single-line whole-tone passage at the beginning of *To the Tomb: the Cradle of the Future Life*. Suffice it to say that the sound here relates to external matters as it does in *Der traurige Mönch*, though to be sure, the matters are quite different one from the other. We shall be more interested in how the whole-tone formations in *From the Cradle to the Grave* relate to the ones that are to follow, most particularly the ones in *Unstern*. We shall see a striking kinship between these two pieces, so striking, in fact, that they could have sprung from the same creative impulse. But there is a difference. *Unstern*'s whole-tone formations relate to internal matters, i.e., they integrate with the entire structure. In short, it demonstrates a more sophisticated use of the whole-tone idea. This means, among other things, that a complete analysis of *Unstern* is forthcoming. In contrast, it is not necessary to show all of the transformations of the basic set in *From the Cradle to the Grave* in order to explain its whole-tone formations. The discussion proceeds along the following lines. We shall cite some of the basic material and then, as we did in the preceding example, show *Metabolons* at work in the bass-line that leads into the whole-tone passage.

Szelényi cites one of the important motives in *From the Cradle to the Grave* and then constructs an abstract showing how the motive divides into tetrachordal formations as follows:
The perfect fourths expand to tritones at the beginning of the whole-tone passage (Ex. 97, mm. 130-31). One sees the motivic relationships in the minor seconds hovering around each of the principal tones in the tritone as they do here around the perfect fourth. The perfect fourths appear to contract to thirds in The Struggle for Existence, as illustrated in example 96 which shows the first twelve measures in the movement, these being followed by an abstract showing two minor thirds having identical inner structures.

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Example 95. Liszt, From the Cradle to the Grave: I. The Cradle.

Example 96. Liszt, From the Cradle to the Grave: II. The Struggle for Existence, measures 1-12.

151 "Der unbekannte Liszt," 316.
Example 96. Continued.

Example 97. Liszt, From the Cradle to the Grave: II. The Struggle for Existence, measures 121-31.

Example 98. Liszt, From the Cradle to the Grave: II. The Struggle for Existence, measures 130-41.
While it would be possible to divide the hexachord that introduces *The Struggle for Existence* into interlocking tetrachords, they would not then constitute a symmetrical arrangement because their inner structures would differ. The reason for not dividing the hexachord in this way is simply that Liszt does not treat it in this way. The third seems to be quite definitely the cellular unit in the passage that leads into the whole-tone formations, the first being $d\sharp - f\#$ (Ex. 97, mm. 121-23). When $a$ becomes natural, $f$-natural follows in the next measure, and this brings forth the expansion to the tritone (m. 130), and this would be an expansion of the set as quoted in example 95. But the wrong
tritone \( f^# - c \) falls on strong beats. It is wrong in the sense that it is not a part of the whole-tone formation that finally comes forth in measure 136. This formation, as we already know, consists of the following pitches: \( b, c^#, d^#, f, \) and \( a \). And these pitches, marked fff in the score, form a dissonant chord that refuses to resolve. The resolution comes in the next movement.

Example 99. Liszt, From the Cradle to the Grave: III. To the Tomb: the Cradle of the Future Life, measures 1-33.

And it comes in the long thirty-three measure single-line introduction to the third movement (Ex. 99). This is not a resolution, of course, in any traditional sense. It comes in three downward steps that fall into a five- plus five- plus seven-measure scheme, the last being
an extension. The contours in all of the phrases are identical. Each of them begins on a member of the $b - f$ tritone, the order of their appearance being $f$, $b$, and $f$. From an upward leap of a tritone, each phrase descends to end a minor sixth below, but not stepwise. The presence of thirds in the descents refers back to the whole-tone chord in the preceding movement. Tremolos extend the third phrase, first on $f - g$ and finally on $d\# - f$. The rumbling in the bass on these major seconds creates a completely open-ended conclusion. The rests that follow accentuate it. Rests also punctuate the melodic seconds that follow. The long note values in which the seconds appear also contribute to the setting of the mood. They also signal the return to the basic set, the second being one of its principal motivic intervals. The listener is not aware of having left the whole-tone formation until the minor second sounds (mm. 23-25). So now we are in another world and we could leave it at that except for one last technical point which will bring us back into the struggle. And this is the use of incomplete whole-tone formations.

Note the absence of $g$ in the formation at the end of the second movement. Note also the absence of $c$-sharp in the introduction to the third movement. We may speculate a moment about this. The complete whole-tone scale contains three tritones. The one that dominates both of the whole-tone passages cited is $b - f$. The other tritone that appears complete in both passages is $d\# - a$. Thus tritones counterbalance the outermost members of the basic chord. Perhaps there are philosophical reasons for omitting one or the other members of the third tritone, $c\# - g$, but it would seem that more down-to-earth reasons explain the omission. But we do not have to explain it. Pointing it out satisfies present needs and thus brings the discussion of *From the Cradle to*
the Grave to its conclusion.

Mephisto Waltz No. 3 (1883)

The expansion that creates whole-tone sound in the third Mephisto Waltz takes place "before your very ears," as it were. It comes by way of modulating back to six sharps, the key signature at the beginning of the piece. By now it should come as a surprise to no one that the pitches that create the sound in the passage are: $b, c^#, d^#, f$ (later, $e^#$) and $a$. Only now the bass note is e-sharp. It is first $f$, the enharmonic change being a part of the modulation. Liszt states the generative chord near the beginning of the piece in measure 10. There follows an abrupt change of mode that cancels all of the sharps in the signature and thus transforms the basic chord to $f – a – d$ (m. 11), there being only one pitch in common and this because $f$ is the enharmonic equivalent of e-sharp. Beginning in measure 11, the basic chord now a minor
triad in the position of the sixth, descends chromatically in this position to traverse a distance of a seventh. Not all of the chords are minor triads in the position of the sixth. One of them, an augmented triad (not shown in the example) marks the point that lies a tritone away from the final chord in the descent, g - b - e. A rest follows and the same descent repeats an octave lower. The beginning chord in the


whole-tone modulation is the same chord that began the descending sixths, or to move back a step, it is the basic chord transformed by the change of mode. The chord gradually changes back to its original form. The change of key signature (m. 27) signals the completion of the transformation.
Final Integration of Equidistant Associations

Unstern (Liszt's last years)\textsuperscript{152}

We have observed Metabolons at work in a variety of ways in a variety of situations. In Unstern, Liszt appears to be moving toward a more sophisticated process. To be sure, the process grows out of his experiments with Metabolons, but it does not operate in the same way. Cogent evidence of the difference is the fact that the basic set in Unstern does not subdivide into tetrachordal combinations. It is rather a symmetrical construction which, if extended from the center outward in opposite directions, creates an inversion as well as a retrograde. Although we cited the basic set in the introductory chapter, a restatement of it follows for the sake of convenience. The set contains, as it stands, the diminished seventh chord and the augmented triad. But this reduces to something more fundamental. The set contains thirds, both major and minor, and the third is the basic cell in Unstern. The analysis will show this in several ways. To be sure, the third operates in a concept in which the center of the octave comes to the fore, a fact that is rather self-evident in the set. It is also evident in the opening measures of the piece. In passing, compare the opening measures of Unstern (Ex. 103) with the beginning measures of the whole-tone formation

\textsuperscript{152}Infra, Appendix III, a complete score of Unstern, pp. 299-302.
in *From the Cradle to the Grave*. We shall, as we move along in the analysis, invite additional comparisons with this piece.


A repetition a perfect fourth higher of the twice-repeated opening measures leads into the long sequence that begins the main body of the piece. Example 104 shows a part of the repetition of the opening measures (mm. 17-20) and the first segment of the sequence (mm. 21-28). Example 105 is an abstract of the complete sequence.


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153*Supra*, example 98, measures 130-32, p. 256.
Example 105. Liszt, Unstern, abstract of complete sequence, measures 17-46.

The complete set, as the abstract of the sequence shows, rises by chromatic steps. A repeating pedal point in the uppermost voice delineates the rise. The complete rise fills in a minor third, a cogent evidence that the third is the basic cell in Unstern. Another evidence is that the octaves in the l.h. fill in two minor thirds: 1) d - f and 2) b - d. Note the exchange of minor and augmented triads at the end of the first segment. In this exchange, members of the basic set alternate with some of their chromatic neighbors just as they did in a similar exchange in Der traurige Mönch. The final chord in the segment is an augmented triad. No changes take place in the second segment of the sequence, its final chord being an augmented triad a semitone higher than the final chord in the preceding segment. The third segment omits the minor-augmented exchange and this accounts for there being fewer measures than in the preceding segments. At the end of the last segment, the minor thirds expand to major. Full chords in both hands signal the expansion (Ex. 106, mm. 45-46). Note that the basic chord reduces to b - d♯ - f - a, an enharmonic equivalent of the so-called French sixth. The expansion is tantamount to an extension of the last segment of the sequence. Part of the basic chord continues repeating in the r.h., first

In double-dotted quarters and sixteenths as before and then in double-dotted halves and sixteenths until finally, in measure 52, it ceases to sound. Under the repeated chord, octaves in the l.h. fill in the cellular units, now major thirds, with whole-tones, the contour of the fillings-in being the same as it was when the cellular unit was a minor third. The filled-in thirds descend by whole-tones until the chord in the r.h. ceases to sound. At this time, the l.h. octaves fill in with whole-tones the augmented triad (f – a – c♯) that begins in measure 58 a two-octave ascent on augmented triads that progress chromatically. The ascent begins piano and steadily increases to a triple forte. Rests
punctuate the chromatic filling-in of the minor third. And this is yet another evidence that the third is the basic cell in Unstern. The rests continue to punctuate the cellular divisions until the urgencies brought on by the accelerando and piu crescendo no longer allow them. An octave tremolo pedal point on $f$ continues to sound throughout the two-octave rise. At the end of the rise, $f$ continues to be a principal participant until the end of the section. In fact, it continues as a pedal point to the end of the section, its presence being made all the more compelling by its octave leaps. The goal of the rise on augmented triads is $c-e-g$. This augmented triad joins with $f$ in its octave leaps and sounds in various registers through to the end of the section. Another pitch, $b_\flat$ joins them in measure 71, and this completes the basic set except for $d$ (cf. Ex. 105a).

Example 107. Liszt, Unstern, measures 68-84.
The dissonant, triple forte chord's refusal to resolve; its concluding a principal section in this manner; and its proceeding to a quiet section—all of these factors—bear a close kinship with similar procedures in From the Cradle to the Grave. We may point out, in addition, that the chord that refuses to resolve in the earlier work is the selfsame chord that triggers the expansion that creates the whole-tone passage in Unstern.

The treatment of the basic cell in the second section of Unstern differs from the various treatments pointed out in the first section. Example 108 shows the filling-in of thirds (bracketed in the example) moving in contrary motion. While the cellular unit may expand to a fourth and while the filling in may be chromatic as well as in similar motion, this example illustrates the basic procedure that Liszt follows in this section. One thing is certain whether this explanation is correct or not. And this is that the most serious error the theorist can make is to impose diatonic functions and labels upon these chords. If the listener hears them in this way, he most probably does not hear them the way Liszt intended.

The mirroring of modes came up in connection with the analysis of Csárdás obstiné (cf. 227-28). Unstern presents a similar situation, and
we again propose the mirroring of modes as a possible explanation. The piece begins and ends on e. The key signature changes to five sharps at the beginning of the final section. The final descending stepwise line is the lower tetrachord of the lydian mode (transposed). Considering all of these factors, the mirroring would be between the lydian and locrian modes as illustrated in example 109. In this particular pairing, the only common tone, besides the tonic, of course, is the center of the octave, b-flat in the locrian mode and a-sharp in the lydian. This could explain the tritone relationships stated in the opening measures of the piece, most particularly the tritone up from b-flat (Ex. 104, m. 17). As to the final cadence (Ex. 110), it is, to say the least, tonally ambiguous. The approach to the final e is by stepwise movement on a whole-tone tetrachord. While this would be the lower tetrachord in the lydian mode, the listener possibly perceives it as a subdominant instead of a tonic. If so, it is interesting to speculate if this is not Liszt’s intention, and if it is, one may speculate further that it harks back to the ambiguities that arise so frequently in connection with his use of the subdominant in his early works.
Example 110. Liszt, Unstern, final cadence.

Unstern, to summarize briefly, brings forth most of the features that we enumerated at the beginning of the chapter. Perhaps the most significant feature of all is the move away from Metabolons as we observed it in the Csárdás obstiné toward a more sophisticated process. And here we refer specifically to the expansion-contraction mechanism that we see operating in this piece. While this mechanism is perhaps primitive as compared with twentieth-century serial techniques, it represents a rather remarkable thrust into the future when considered in relation to its time. But, its time notwithstanding, a paradox arises out of all this. On the one hand, we can point to a remarkable understanding of symmetries, intervallic relationships, and a tight control of a basic set of pitches (intervals). On the other hand, we may point to austerity. And herein lies the paradox, and this is that Liszt did not understand fully that the restrictions imposed by strict disciplinary procedures could also bring freedom and flexibility. In the Bagatelle sans tonalité, one suspects at times that he is on the verge of making this discovery.
Bagatelle sans tonalité (1885)¹⁵⁴

Metabolons, now a more flexible process than we observed in the Csárdás obstiné, operates in Bagatelle sans tonalité to polarize a basic set of pitches. In the Csárdás, Liszt dwells upon the basic set, virtually unchanged, in the first fifty measures. As opposed to this forthright presentation of the basic set, the basic pitches emerge gradually in the Bagatelle; therefore, the listener is not certain as to the identity of all of the pitches in the set until the piece moves along a way. Once it gets under way, tetrachordal formations begin to polarize around certain pitches. Abundant chromatic activity aids in the polarization process until finally, the listener perceives the basic set of pitches to be the following: b, c, d, e, f, and a. This set engenders two basic chords—b – d – f – a;b (g♯) and b – c♯ – f – a—the second being an expansion of the first. These chords, in turn, engender the equidistant formations on which Liszt builds the Bagatelle.

These chords possess the capability of bringing the complete field of equidistant associations into play. The presence of the diminished seventh chord and the augmented triad in the chords is self-evident. The second chord generates whole-tone sound. The equidistant shapes in the Bagatelle, as compared with the shapes in Unstern, are not as forthright. Besides, chromatic activity makes them more volatile. But, to be sure, while somewhat different, they emerge in both pieces as a result of Liszt's use of his expansion-contraction mechanism, as one may surmise from the comments on the basic chords. And, as happens in Unstern, evidence supporting the proposal that the third serves as the

¹⁵⁴Infra, Appendix IV, a complete score of Bagatelle sans tonalité, pp. 303-310.
basic cell comes forth in the Bagatelle.

The introductory measures in the Bagatelle present three fragments, each consisting of two measures, each being twice-repeated, and all containing f, the center of the principal octave in the piece. The first fragment—e - b - f—is an example of what Szélényi terms Liszt's musical signature.155 This tritone (b - f) remains unchanged in the expansion of the basic chord (b - c# - f - a). The second fragment adds

Example 111. Liszt, Bagatelle sans tonalité (1885), measures 1-20.

155 Supra, n. 140, p. 232.
a c-sharp to the tritone, this being a member of the expanded chord. The third fragment begins on c-sharp and fills in the locrian minor tetrachord. While the introductory measures do not contain all of the basic pitches of the two chords cited earlier, they nonetheless imply them. Moreover, it is in the realm of possibility that the intention here is to foretell in abstract form something of the basic structure of the piece. A brief résumé of the form of the Bagatelle expedites pursuing this possibility. Its form consists of two main sections, A and B, that repeat in this order with some elaboration. Section A divides into three subsections, a a' b. Section B is a protracted sequence. Its segments fill in chromatically the locrian minor tetrachord as it appears in the introductory measures (mm. 10-11). This sequence evokes whole-tone sound and is therefore our chief point of interest in the Bagatelle.

Liszt builds subsection a on the basic chord (mm. 13-16) and the expansion of the basic chord (mm. 17-24). The basic chord lacks an a-flat and is therefore incomplete. The expanded chord is complete. One may argue, not without justification, that g is an integral part of both chords, but it would appear more likely that it is not. The dissonance that it creates with f - f# aids in completing the polarization of f, the principal tone. Recall for a moment a similar handling of dissonance in the Csárdás obstiné. In this piece, an a-sharp sounds simultaneously with the principal tone, a, which lies a minor ninth above. The g in the expanded chord is clearly a passing tone. In subsection b (mm. 37-51), tetrachordal formations (Ex. 112) polarize around c - c# in triplet

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figurations similar to the ones that polarize around $f - f^\#$ in measures 13-17. The principal tone is c-sharp in the figurations, thus this section ends on the expansion of the basic chord, the chord on which the sequence, Section B, begins. Example 113 shows the end of subsection b (section A), the transition to the sequence (mm. 53-56), and the first

Example 112. Liszt, Bagatelle sans tonalité, tetrachordal formations, measures 37-51.

Example 113. Liszt, Bagatelle sans tonalité, measures 50-64.
segment of the sequence (mm. 57-64). Note the twice-repeated chromatic movement in the uppermost voice from a down to g and back again to a.

In the repetition of this section (B'), these chromatic pitches become the lowest members of filled-in thirds. The bass-line of the sequence, as already pointed out, fills in chromatically the locrian minor tetrachord, c♭ - f. Upon reaching f, the basic chord contracts to its original form—b - d - f - g♯. This contraction prepares for the coming of the final cadence of Section B, this being a leggierissimo rise on the basic chord (Ex. 113). But the chord contains an additional tritone (c♯ - g), the c-sharp being a holdover from the expanded form of the chord. The basic chord containing no impurities concludes the piece (Ex. 116).

Example 114. Liszt, Bagatelle sans tonalité, final cadence of Section B, measures 80-86.

While whole-tone sound emerges in the first statement of the sequence, it is more pronounced when it returns (Section B'). A prolonged trill on c-sharp signals the expansion of the basic chord
(Ex. 115). The addition of a (m. 143) completes the expansion and prepares for the coming of the sequence which begins in measure 149. As already pointed out, the pitches that descend chromatically from a down to g and back again to a become the lowest member of filled-in thirds in the sequence. The top member of the thirds does not descend chromatically. It descends from c-sharp to b (mm. 149-50) and back again to c-sharp, thus, the filled-in thirds are alternately major and minor as follows: a - c#, g# - b, g# - b, g# - b, and a - c#. The uppermost chord member in the l.h. reinforces the chromatic movement with doublings. The segments of the sequence fill in chromatically the locrian minor tetrachord (c# - f) as in the initial statement of the sequence. Example 115 shows the expansion of the basic chord, or rather the basic chord expanding (mm. 142-43), the prolonged trill on a (mm. 143-48), and the first segment of the sequence.

Example 115. Liszt, Bagatelle sans tonalité, measures 142-58.
The chromatic filling-in of a basic cell with a rising sequence in the Bagatelle shows one of its procedural ties with Unstern. In Unstern, to cite another, rests punctuate the basic cell (minor third) in the two-octave chromatic rise on augmented triads; in the Bagatelle, Liszt also accentuates the basic cell in a chromatic rise, but in a different manner. He fills in chromatically every other third in the rise on diminished seventh chords that concludes the piece. While these alternate fillings-in bring the basic cell (minor third) to the fore, they also bring forth final proof that $b - d - f - g\#$ is the basic chord because they occur on the following thirds: $f - g\#$ and $b - d$. The contraction that creates this chord, already described in connection with the discussion of the initial statement of material, leads into the
final cadence on the basic chord. In a broader sense, this cadence on an unresolved diminished seventh chord concludes Liszt's whole-tone experiment.

Example 116. Liszt, Bagatelle sans tonalité, final cadence.

A summary of the second phase of Liszt's whole-tone experiment at this time would be needlessly repetitious. We shall return to it in the chapter that follows in order to draw comparisons that will show the experiment as a whole to be a continuous experience.
CHAPTER VI

GENERAL SUMMARY AND CONCLUSION

The problem in this study, as stated at the outset, is twofold: 1) to project the evolution of whole-tone sound in Liszt's original piano works as a self-contained, continuous experience and 2) to clarify Liszt's creative approach to the extent that is possible within the limitations imposed by the definition of a single idea. While the definition of the idea is complete, the clarification of Liszt's approach is not definitive, it emerges by way of illustration. Emphasis throughout the study focuses not so much upon Liszt's creations as his creative bent, the objective being to explain Liszt himself. To be more specific, the cumulative evidence demonstrates that Liszt's last style, as strikingly different from the style of his earlier works as it might appear, results not from a radical change in the sense that he pursues totally different directions in his late works, but rather from a gradual process of abstraction and reduction of his ideas. The evidence in the study does not document the entire process; it projects a circumscribed view of the outer limits of Liszt's compositional experience. Liszt's whole-tone idea serves as a singularly appropriate vehicle for comparing the outer limits because the whole-tone passages, with few exceptions, appear in his original piano works during two experimental periods: 1) 1847-52 and 2) 1877-85. A review of some of the points appearing in the summaries scattered throughout the study will facilitate making comparisons between the two periods which, in the study, we designate as the first
and second phases of the evolution of Liszt's whole-tone idea.

Projection of the evolution of the whole-tone idea demands showing where Liszt's compositional experience begins. His penchant for continual renewal precludes the possibility of establishing a frame of reference for the beginning of his experience by using his own works that would be comparable with the one that we established with Beethoven's piano sonatas. This point of reference facilitates showing more precisely where Liszt's compositional experience begins. Moreover, it stands as a constant by which one may gauge trends in the evolution of his tonal thinking.

The discussion of mediant relationships (Chapter II) focuses primarily upon chains of triads that progress by thirds in the works of Beethoven, Schubert, and Liszt. Several issues enter to widen the scope of the discussion. Two of them—1) the thematic process in Beethoven's piano sonatas and 2) adjustments in the traditional concept of the tonic as a centripetal center between the dominant and subdominant—tower above the others in importance. Overall, the discussions in this chapter show a move away from mediants that behave according to the laws of Beethoven's expanded diatonic system to mediants that behave according to the laws emanating out of Liszt's concept of equidistance. In other words, they show Liszt adapting a tradition to create something new and different—rotating mediants. The analytical discussions in this chapter illustrate the points enumerated in the paragraph that follows.

The bII - bVI region, prominent in the tertian chains of Beethoven and Schubert, furnishes Liszt a point of departure for the construction of rotating mediants. While root-position triads prevail in a majority of the tertian chains discussed, rotating mediants convert the
alternating major and minor triads in diatonic chains to all major triads. Diatonic chains divide the fifth; rotating mediants by-pass the dominant and divide the octave by equal thirds, either major or minor. Tonicizations of the principal chords may or may not appear in rotating mediants. As to their usage, rotating mediants may set up tonal options as illustrated in Sonetto 104 del Petrarca or they may serve to keep tonal options open as illustrated in the examples appearing in the approach to final cadences.

The discussion of the rotating-median idea looks both to the past and to the future. On the one hand, it links Liszt with his immediate predecessors; on the other, it links with his whole-tone experiment. We see this happening in the Dante Sonata in 1849. The summary of whole-tone shapes at the end of Chapter III shows the evolutionary steps that lead up to the coming together of the two ideas. This linkage serves as the reference point for comparisons with the second phase of the evolution of Liszt's whole-tone idea.

The whole-tone idea becomes a coequal partner with the rotating-median idea in the Dante Sonata, each of the ideas being an integral part of the complete field of equidistant associations. Liszt juxtaposes two diminished seventh chords in the opening measure of the Dante Sonata, the principal one being $ab - b - d - f$. This chord guides the protracted sequence that opens the piece; it guides rotating mediants that appear later in the piece to form a tritone cycle--$ab - b - d - f - ab - b$; and it is the basis of the whole-tone progression that reverses the same tritone cycle--$Ab - B - D$ (articulation points in a rising sequence) -- $C - Bb - Ab - F\# - D - C - Bb - Ab$ (articulation points in a descending whole-tone progression). Tritone centricity, as evidenced
in these progressions, underlies the construction of basic shapes in the Dante Sonata and is thus a principal determinant of its overall form. We enumerate all of these factors to facilitate making forthcoming comparisons between the early and late works. A few additional factors are necessary for drawing these comparisons.

We must recall that in the first phase, the whole-tone scale fills in major thirds between the roots of triads in rotating mediant guided by the augmented triad as, for example, in the alternate ending that Liszt wrote for Un sospiro. Another scale emerges in the first phase in several situations. The octatonic scale fills in minor thirds between the roots of triads in rotating mediant guided by the diminished seventh as, for example, in the approach to the final cadence of Un sospiro. It also fills in the locrian minor tetrachord as shown in the brief sketch of the evolution of the augmented triad as a structural device (Chapter IV).

The discussion of the augmented triad arose in connection with the definition of Metabolons, a built-in principle of transformation based upon the variable tetrachord. A knowledge of this process contributes immeasurably to the understanding of what happens in Liszt's late works. It is therefore an essential factor that must enter into the comparisons of the early and late works. Most of the whole-tone activity in the second and final phase of the evolution of Liszt's whole-tone idea hovers around a basic set of pitches—b, c, d, e, f, and a—which with the aid of Metabolons transform themselves into many different shapes. This process eliminates the necessity for augmenting tonal resources by juxtaposing two diminished sevenths as in the Dante Sonata. Metabolons brings into play any set of variables, the number of sets possible
approaching infinitude. The mirroring of modes and the possibility that
the procedure offers of deflecting from the basic scale to its mirrored
form increases the possibilities. These comments possibly convey a
wrong impression. As pointed out in the discussion of Unstern, Liszt
does not develop his system to the extent of utilizing all of the pos-
sibilities that it is capable of bringing into play. His utilization of
the system looks to the past, his past, the materials utilized being
abstractions and reductions of the materials brought forth in the dis-
cussions of the first phase of his whole-tone experiment.

We see this utilization most clearly in the final integration of
equidistant associations in Unstern and Bagatelle sans tonalité. We
illustrated how in these pieces a basic cell—the third—expands and
contracts. Referring back to the Dante Sonata, we see this expansion-
contaction mechanism in a more primitive state in the filling-in of the
octave, now by minor thirds, now by whole-tones. This is to say that
rotating mediants reduce to basic thirds in the late works. Protracted
sequences such as the one that opens the Dante Sonata also compress to
the third. In both Unstern and Bagatelle, segments of long sequences,
instead of dividing the octave equally as in the Dante Sonata, divide
the basic cell equally by progressing chromatically. The material used
in both of the sequences in these last works reduces to basic sets. In
this connection it is possible to draw yet another analogy. We have
cited the basic chord in the Dante Sonata and demonstrated how it serves
to guide elaborate sequences and rotating mediants. The basic chord in
the Bagatelle is the selfsame chord, the startling difference being that
it constitutes the basic material on which Liszt builds the entire piece.
To be sure, tetrachordal formations polarize around its basic pitches at
one time or another during the course of the piece. Chromatic activity aids in the polarization process, and this adds some pitches. The chord expands. The expansion adds c-sharp and a. The expanded chord--b--c♯--f--a--we shall recall, evokes whole-tone sound in the long sequence.

This intense concentration upon basic pitches presents a rather striking contrast to the Dante Sonata in which the same chord governs much that happens in the piece in a somewhat more elaborate manner. But the drastic reductions that differentiate the two pieces (the two periods) should not obviate the fact that Liszt's tonal thinking remains remarkably consistent.

One final point completes the comparisons. Tritone centricity underlies the construction of the Dante Sonata. This feature is evident in the opening measures of Unstern and the Bagatelle. As pointed out on several previous occasions, Unstern's basic set fans out from the center of the octave. The basic tritone (b - f) in the Bagatelle does not change when the chord expands, f being the center of the principal octave. Therefore, the center of the octave remains very much to the fore throughout the entire piece. To be sure it often vacillates with f-sharp, but these vacillations, as often as not, serve to reinforce its significance.

Liszt's late works, as many Liszt scholars point out, stand on the threshold of something new and different. Our concern has been how they relate to his past. An understanding of this relationship, as pointed out in the introductory chapter, is absolutely essential to the task of assessing Liszt's influence. Within the limitations imposed by our main topic, this exploration shows that Liszt's final abstractions
trace back to his own earlier works, or conversely, that they culminate a self-contained, ever-evolving experience.
APPENDIX I

HEROISCHER MARSch
in ungarischem Styl
von
F. LISZT

Berlin, Eigenthum der Schlesinger'schen Buch- u. Musik-Verlag.

PIANO.
APPENDIX II

THE SAD MONK

Ballad by Nicolaus Lenau

Literal translation by Martha Webster Simpson

In Sweden stands a gray tower,
sheltering owls and eagles;
(It has) played (frolicked) with
rain, lightning, and storm
for nine hundred years;
Whatever people (humankind) lived
therein,
with (their) desire(s) and their sorrow(s)
are long since gone.

The rain pours down, a knight
approaches,
He (drives his) spurs into his horse's
flanks.
He has lost his way in the shadows and
(in his) thoughts.
Howling in the wind, the forest writhes
like a whipped child.

The tower is ill-spoken of in the region,
for at night in (by) bright moonlight,
A specter in monkish garb haunts it.
Sorrowful (melancholy) is its mien.
And whomsoever the monk looks in the eyes
Also becomes sorrowful and dies.

Yet without fear and trembling (horror),
the rider strides under the tower-arch (vault).
He leads his black horse in with him
and banters lightheartedly with the little steed:
"Don't you think we are better off
with ghosts than with the wind and rain(drops)?"
The saddle and the wet bridle
of his horse he unfastens.
He spreads in the bare room
his cloak on the floor,
And blesses yet the memory (ashes)  
of the hands that built it so sturdily.

And as he sleeps, and as he dreams,  
his horse awakens him,  
It is snorting and rearing,  
bright is the tower,  
The wall (glows) bright as though  
in flames;  
The man summons up his courage.  
Wide open the horse flares its  
ostrils,  
It bares its teeth in terror,  
The horse sees the ghose (spirit)  
and its mane stands on end;  
Now the rider too beholds the specter,  
And (he) crosses himself as is the  
ancient custom.

The monk stands before him,  
so lamentably still (silent), so ominous,  
As if the world (universe) (itself)  
were weeping silently (through) him,  
So sad (grievous), 0 how sad (mournful)!  
The wanderer gazes upon him  
steadfastly,  
And is overcome with pity (compassion).  
The great (vast) and secret pain (woe),  
which throbs through nature,  
This a bleeding heart may guess at (sense),  
this despair may perceive,  
But (must not) attain it (fully realize it),

The (this) pain (woe) (suffering) appears  
in the eye(s) of the monk, (and) the rider weeps.  
He cries (out): "O say, what ails thee?  
What (is it that) so profoundly moves (affects) thee?"  
But as the monk bows his head,  
the pallid lips (begin to) move,  
to reveal (speak of) (dreadful mysteries) horrors.  
He (the knight) cries out in terror:  
"Be silent! Be silent!"

The monk vanished, the morning dawns,  
the wanderer departs from thence.  
No further sound does he utter (speak),  
on death alone (now) must he brood.  
No fodder tempts the black horse,  
al is over with rider and mount.  
And when the sun sinks at eventide,  
their hearts beat more fearfully,  
The monk beckons from every bush (branch),
And all the leaves lament (mourn),
All the atmosphere is (charged with) pain and woe.
The horse (wends his way) wanders (down) into the
(depths of the) lake!
APPENDIX III

Unstern!

APPENDIX IV

BAGATELLE SANS TONALITÉ

Allegretto mosso. Metronome 160

LISZT Ferenc
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VITA

PERSONAL DATA

Name: Harold Adams Thompson
Address: 205 Arrow Drive, Starkville, MS 39759
Telephone: 601-323-7379
Place of Birth: Campton, Georgia
Date of Birth: February 15, 1925
Name of Spouse: Frances Benson Thompson
Children: Christopher, 21; Margaret, 17; John, 14; Charlie, 12

ACADEMIC TRAINING

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HONORS

Competitive Piano Scholarships (University of Michigan)
Baton Rouge Music Club Scholarship (1966-67-68)
Pi Kappa Lambda Scholarship (Louisiana State University)
Honorary Scholarship (Graduate School, 1967, Louisiana State University)
Pi Kappa Lambda
Phi Kappa Phi
### PROFESSIONAL EDUCATION EXPERIENCE

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<td>Radford, Virginia</td>
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<td>Mississippi State University</td>
<td>Theory, Piano Literature, Piano</td>
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<td>Starkville, Mississippi</td>
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Candidate: Harold Adams Thompson

Major Field: Music

Title of Thesis: The Evolution of Whole-tone Sound in Liszt's Original Piano Works

Approved:

[Signatures]

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

November 26, 1974