MEMNON, A MUSICAL SCORE FOR BALLET,
TOGETHER WITH A STUDY OF TWENTIETH-CENTURY TONALITY AND LINE
THROUGH ANALYSIS OF
DEBUSSY’S FETES GALANTES BOOK II,
STRAVINSKY’S AGON AND
TIPPETT’S SONATA NO. 3 FOR PIANO

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CHAPTER ONE

Introduction

The purpose of the following study is to illuminate aspects of the compositional procedure employed in Memnon, a musical score for ballet, and to relate Memnon, and other compositions by the author, to contemporary music. The method employed will be to analyse three works which have proved influential in the development of the author's style of composition, and which are important representations of a living tradition of which the author's ballet suite forms part.

Specific works have been chosen because a more general survey of contemporary music would not have yielded so meaningful an illustration of the functioning of those aspects of compositional procedure of particular significance for the author: tonality and line. Art honours the fine and the exceptional, and while musical tradition encompasses the everyday and the commonplace, it is works such as Debussy's *Fêtes Galantes* Book II, Stravinsky's *Agon* and Tippett's *Sonata No. 3* for Piano, which have shaped current understanding of tonality and line.

A notable characteristic shared by these composers and the author is eclecticism. It has been part of the author's aim in composing Memnon to accommodate as diverse a range of musical idioms as is possible within the constraints imposed by his need for progression and coherence. Such pluralism stands in contrast to that element in
contemporary music which brooks no compromise and which aims to establish a discrete system of composition for each work (1).

It is, inevitably, easier to illustrate tonality and line in composition than it is to define them in words. Musical commentary follows the event of composition and is already subject to conditions different from those which determined the composition. Musical theory has had a tendency to establish the procedures of the past as law by which to judge the present (2). While this study would wish to resist with Adorno (3) any tendency to acknowledge one established "tonal truth", it also recognises the continuing influence of procedures of the past in the present.

Richard Norton, in his attempt to trace the development of tonality in Western culture, comes to conclusions such as these: if tonality makes and remakes itself in a continuous process, any definition of it within a limited historical perspective must be incomplete. "Tonal analysis" is "not subjective" (4) enough. At the same time that tonality represents the organisation of sound made and

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perceived by individuals, it is also shaped by "the given of nature" (5) both in terms of the physical properties of sound and in terms of the biological and neuropsychological dimensions of human hearing.

Whereas tonal analysis is not sufficiently subjective, tonality itself is not wholly inherent in the individual. It has a social dimension. Just as we learn to be literate, so we learn to be tonal. This study cannot hope to distinguish between what is natural and what is cultural, not only because these concepts are not mutually exclusive. But it is apparent that "music becomes tonal only to the degree that a specific definition of tonality will permit it to do so" (6). Society not only contributes to what tonality is, it also informs our definitions.

Then how should one proceed? In discussing tonality, the author will make use of traditional terminology and some contemporary techniques. Because traditional terminology imposes a cultural limitation shared by analyst and composer, it can be an asset in an attempt to perceive those aspects of music which are a continuation of tradition. On the other hand, there has been a tradition in arts criticism, established in the Anglo-Saxon world since the 1960s, and

(5) Ibid., p.4.
(6) Ibid., p.29.
born of Saussure's work in linguistics (7), that has emphasised the synchronic as opposed to the diachronic. This has had the benefit of revealing those elements in the arts which are independent of the artist. It has revealed in every art a system of semiotics which, like language and tonality, seems to have a life of its own. It has emphasised the role of the observer, the reader or the listener. In other words, in a culture as complex as ours, tonality will to some extent, and independently of the composer, represent the structure of society, and at the same time, because it is meaningful, will demand what Roland Barthes calls a "lexis" (8), an individual's understanding.

Having proposed a variety of approaches to study, how can one accept such a limited choice of works to be studied? The traditions of certain forms of tonality are ossified in commercial reproduction, and even a composer whose works have won as wide an acceptance as Debussy's, finds himself in an exclusive, alienated elite. "Instead of spreading music among the populace, I propose the foundation of a 'Society of Musical Esotericism'" (9).

In advice to young composers in 1957 Stravinsky wrote:

"The very people who have done the breaking through are themselves often the first to try to put a scab on their achievement. What fear tells them to cry halt? What security do they seek, and how can it be secure if it is limited? How can they forget that they once fought against what they have become? (10)"

At 75, Stravinsky felt that it behoved him to continue to "try to discover whatever new thing it is makes the new generation new". After a life-time of being at the forefront of tonal exploration, any lapse into popularity was to be avoided.

'Serious' tonality in the modern world is personal, subjective, alienated, and gives the illusion of tonal 'progress'. 'Popular' tonality is impersonal, objective, numbingly collective, and makes no pretence of going anywhere at all (11).

The author would modify this generalisation of Norton's. The three pieces in this study have been chosen because they do represent genuine, not illusory, tonal progress; genuine because they are not divorced from the collective. Indeed, it is part of the argument of the study, that were tonal progress to become so divorced, it would lose its significance, which is a composite of the individual and the social.

Tippett's fluid, some would say awkward, approach to tonality has led him to what Ian Kemp describes as an "expressive" rather than "structural" use of tonality (12). English tonality has often been at odds with the continental.

If Norton's explanation (13) of our expectation of a return to a tonic is true, Tippett's understanding of tonality has an ancient pedigree. In Hebrew and Greek chant the expressive function of tonality also predates and characterises the structural. Tippett's music also preserves characteristics peculiar to the English tradition, most particularly those aspects of medieval counterpoint which survived in Elizabethan and Restoration music to provide a harmonic poignancy close to the blue notes of jazz. But the significance of the mediant in such phenomena as major/minor chords, mediant rather than fifth modulations and divisions of the octave based on major or minor thirds, has potency for all the composers in this study and not just for the English. Debussy, Stravinsky and Tippett have all looked to the past, and it is


(13) "The beginning set of tones was followed by a middle tone; this middle tone was felt to be a state of activity and incompleteness merely because the hearer of the text knew that the text was not yet finished; and the text continued to its grammatical close and was musically finalized by tonal motion toward a predictable conclusion." Norton, Tonality in Western Culture, p.145.
a prominent feature of twentieth-century music that mediant/tonic relationships, both major and minor, have provided welcome alternatives to dominant/tonic relationships.

This is not to say that one system replaces another. As Western perspective on history and the world has grown wider, so its music has been able to absorb more and more influences. A work like Stockhausen's Donnerstag Aus Licht embraces an astonishing diversity of style and tradition, and all, apparently, derived from the twelve-note row of the short final fanfare (14). American composers such as Glass (15), Reich and Riley have all studied African or Oriental music, not to add an exotic flavour to their work, but to find new patterns of rhythmic and tonal structure (16).

Christopher Small (17) has made impassioned and coherent demands for "serious" music again to root itself in what he calls "the vernacular". His claim is that much European twentieth-century music has lost this essential corrective to spurious intellectualism. Another

(16) Steve Reich, in "Some Optimistic Predictions (1970)" about the future of music, said, "Non-Western music ... will serve as new structural models for Western musicians" in Steve Reich, Writings about Music (N.S./N.Y., 1974), p.28.
quotation from Stravinsky, such an accurate representative of his age, is pertinent in this context:

Jazz, why not? It is the only kind of music that is worth being paid attention to. It is not a result of dull theories. This music sneaked into the problems of modern music out of the atmosphere of the cabaret and one could say we don't admire it, but true music always has the most simple origin. It comes from the soul. True art is always inherent in the people and particularly the true art of music. Folk tunes and dances unveil a multitude of possibilities for expression, possibilities that fascinate me .... Again and again I see them in my development, and I feel like the vehicle they need .... Spain and America have types of folk tunes which I like to compare to Russian ones (18).

This suggests that the vernacular that is a potent source for a composer does not have to be local. But one would expect an eclectic composer, who in youth was touched by the vernacular in the form of a living folk-music tradition, to draw on the tonal lessons so learnt in establishing a musical style. There have been many examples of twentieth-century composers adopting features of folk-music in a self-conscious, theoretical manner: i.e. to establish an English contemporary idiom, it was thought that one should look for folk-song previously lost. One cannot question the sincerity of such an

undertaking, except in so far as it produces music that is sentimental or otherwise debased. But it seems as artificial to the author to impose a vernacular on one's work as to impose new tonal systems on successive compositions.

It has been only comparatively recently that Stravinsky's interest in his Russian folk-roots has been given full recognition (19) and we have come to appreciate the influence of the work of the archivist of Russian folk-song, Eugeniia Linyova, on the tonal cast of Stravinsky's enquiring mind and ear. That he made a vertical juxtaposition out of minor tetrachords that had existed only in the independent lines of folk-song, may reflect the complex society he represents.

It is not within the scope of this study to unravel the sociological significance of Stravinsky's bitonality, but the fact that it was initially based on the minor tetrachords of Russian folk-tunes suggests that tonality does more than to respond to change, but that like society itself it is a complex amalgam of history and change. First fully established in Le Sacre, none of Stravinsky's discoveries has had such widespread acceptance as bitonality. Bitonality is an unsatisfactory word because it implies something that is rarely found, a piece entirely and simultaneously in two independent keys (actually,

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Bartók wrote such bitonal exercises several years before Le Sacre (20), but "bitonality" is used frequently to describe something that is very common: "bichords" (21). Composers as different as Tippett, Stravinsky, Poulenc and Aaron Copland have found bichords valuable in revitalising traditional tonality. Bichords are often also referred to as polytonality, but genuine polytonality, like bitonality, is far less common than bichords. Whatever the social change was that allowed a Russian exiled in Paris to establish this particular development in tonality, it must have been felt throughout the Western world. Stravinsky was seen as an iconoclast. But already, in a brief span of history, he can be seen, like all the composers in this study, to have created much and destroyed little.

So tonality is something that develops continuously in relation to its past. It is something that is informed by the structure of society. And it is something the perception of which is determined by the history and social role of the listener. In terms of a particular composition, and because of the claims of these other dimensions, the only definition that one can wholly affirm is that tonality is the organisation of pitches within a work so that a part relates to the whole, or a detail to the part and, as such, line is itself a manifestation of tonality. While this definition is adhered to in this study, the words tonality and line are also used to refer to two axes

(20) Bartók, Bagatelles, Op. 6, 1908.
(tonality: the vertical; line: the horizontal) in relation to which the organisation of pitches is perceived to mean something. It is also important to note that tonality can sustain a variety of systems for the organisation of pitches, some ancient, some original, some exotic, some nationalistic, some culture-bound.

A specific current reading of the word "tonality" is as the binary opposite of "atonality". The word "tonality" is used to refer only to an organisation of pitches which is clearly hierarchical. And the unconvincing word "atonality" is used to describe music written from early in the twentieth century, when the tendency for western music to use more of the chromatic spectrum more often had reached an apparent extreme point. When Schoenberg recognised that the gradually established tendency to use the whole chromatic spectrum modified certain other traditional tonal hierarchies, he felt the need for a system which attempted to establish an egalitarian approach to pitches. Was he doing something substantially new, or was he playing a part, as other composers have done, in making and remaking tonality in a continuous process: a continuous process which is by no means consistently progressive? His own later use of keys, Webern's use of triadic patterns, and both composers' use of line, illustrate that the egalitarianism of dodecaphony did not shut off composers from the variety of inherited systems to which much contemporary music still refers. From the perspective of certain non-European cultures, the avoidance of microtones could appear to be rigidly exclusive. The hierarchies of tonality within Western culture, as ever, continue to change, but are rarely superseded.
The eclecticism of Debussy, Stravinsky and Tippett is no barrier to tonal coherence, as the works chosen for this study clearly illustrate. Stravinsky's interest in various hierarchical patterns was maintained when he adopted serial organisation. Composers who have mistaken Schoenberg's "invention" of dodecaphony as the prototype for composition which requires completely new systems of tonal organisation for every new work, have not always allowed for, as Schoenberg clearly did, the need for tonal organisation to build on established tonal understanding of the recent or of the distant past.

The distant past would appear to have influenced the linear writing of Debussy, Messiaen, and, in recent works, Birtwistle. The later composers' use of organum-techniques are foreseen in Rudolph Réti's discussion of the work of Debussy (22).

If atonality had been literally atonal and had dodecaphony actually represented a break with the past, the expressive significance of intervals, linear or harmonic, would have been forfeited. The truth is quite different. German Expressionism is one of the most intensely expressive movements in arts history, and when, in the 1920s, Kandinsky and Schoenberg began to codify their intense artistic languages, much of the older expressive vocabulary was preserved while new possibilities for expression were discovered.

Whereas the definition of tonality as the organisation of pitches within a work would suggest that it is self-contained, reference to a variety of systems is an important feature that links all the works here analysed. Each work represents both a coherent tonal argument and a complex of musical allusions.

In twentieth-century music just as a single chord can sustain bitonality so individual strands of counterpoint can make reference to different systems for the organisation of pitches, from the combination of modes and post-Wagnerian chromatic harmony to be found in Debussy, to the modes, triadic tonality, completion of the chromatic spectrum and series used simultaneously in Stravinsky, and to the fleeting references to modes and keys in the apparently free, improvisatory lines of Tippett.

Line can mean melody or the individual strands of counterpoint, but it has here also a more general significance and is used to denote all those aspects of tonality which determine forward progression, not only scale, sequence, imitation, inversion, retrograde, diminution,
augmentation, but also other less immediately apparent determinants of the direction the music follows, the maintenance of a texture such as fugue or the characterisation of lines by instrumentation or key. A simple definition of line as used in this study should cover any and all those features in the music studied which encourage the listener to listen horizontally.

In concentrating on these aspects of compositional procedure there is no attempt to deny the unity of the music studied nor to ignore the interrelationship of other elements such as rhythm, timbre or proportion. Tonality and line are chosen to focus and to limit the study and because they refer to an aspect of music which remains for the author a potent source of invention.

There is objective logic in the selection of works here studied, as well as personal predilection. Tippett has acknowledged Stravinsky's influence, and the fertile relationship between Stravinsky and Debussy took place within what has been a thoroughly documented Franco-Russian connection at the turn of the century (23). Moreover, Debussy (24) and Stravinsky have a common debt in Musorgsky:

Musorgsky's creative deployment of natural Russian speech rhythms in his vocal music and his strikingly original harmonic thought influenced Debussy in his development of the flexible, unassertive rhythms which perfectly match spoken French and of an harmonic language which radically modifies traditional tonal functions (25).

According to Réti, the most characteristic parts of Musorgsky's music are "flavoured with old Russian folklore and thus, like almost all old folk music, are conceived in some form of melodic tonality" (26).

The characteristics of Réti's "melodic tonality" are those of ancient Hebrew chant, of Gregorian chant, or of all music before the birth of harmony, tunes that will not readily be harmonised, that hold together because they are melodic units. Such tunes can be interrupted at any point and brought to a reasonable close on a tonic, whereas what he calls "harmonic tonality" produces tunes which some points where closing to a tonic is inevitable, and others where it is impossible, or at least, unnatural.

It could be said that one of Debussy's most important innovations was to change the emphasis in music from the vertical to the horizontal axis. Many of his contemporaries (27) wrote music in what has been

(27) Mahler, Bruckner, Richard Strauss etc.
described as "expanded tonality", rich with modulation, harmonic complexity, and an ever more complex pattern of relationships between keys; such music, nevertheless, held to the basic structures of triadic harmony; if not to the I - V - I Ursatz, then at least to a sense in which a whole piece of music was an enormously extended cadence. Debussy was able at the same time to dispense with the harmonic restrictions of such music and to preserve the value of tonality in building musical structures.

Only the weakening of "harmonic tonality" could allow "melodic tonality" to re-emerge. And Debussy found "melodic tonality" not only in Russia, but also in the past and in a variety of "exoticisms". Samson says that Debussy's fascination with the exotic — both historical and geographical — was giving pronounced expression to a characteristic peculiarly associated with French music and one which forms yet another point of contact between French and Russian cultures. "Exoticisms" in his work range from the stylization of Javanese gamelan sonorities in the second movement of the quartet to the pseudo-antiquity of the Chansons de Bilitis and Danseuses de Delphes, the orientalism of Pagodes and the many evocations of Spain. It is manifest above all in his lifelong preoccupation with the legendary characters of the Italian Commedia dell'Arte, from the first set of Fêtes Galantes (1892) to the much later Cello Sonata (1915) (28).

This suggests the possibility that melodic tonality had some continued history in the polyphonic music of France. It is almost ironic that it was a Frenchman, Rameau, who so successfully systematized a tonality of Italian roots and German development. But Rameau's motivation was to introduce "reason" into music (29). Rationalist and precisionist tendencies went together with a desire to be explicit and distinct. In this spirit, Rameau and Couperin offered titles or programmatic headings for harpsichord and chamber music (30). The contribution of counterpoint to the development of the major/minor tonal system is fully acknowledged by John Shepherd (31), and produced over the history of Russian and English music, as well as French, examples of independent lines sustaining their own tonal logic. It must suffice here to give two brief examples from the harpsichord music of Rameau and Couperin as evidence of the continued history of the older tonality.

From the second ordre of François Couperin come the final bars of Les Idées héréuses (32) (ex. 1.1) and from Rameau's Nouvelles suites des pièces de clavecin (33), an excerpt (ex. 1.2, p.19) from L'Enharmonique. In the Couperin, the augmented triads set out in ex. 1.1a (p.19) and in Rameau, the combination of quite contradictory chromaticisms, almost modal minor third/minor sevenths at the beginning of the second full and fourth bars, and the mediant progression from A to C in the second full bar, are examples of an unusual and expressive harmony which seems primarily to be the product of a horizontal rather than a vertical tonal logic.

Example 1.1: François Couperin, Les Idées héréuses, final bars.

(32) Published in the first Livre (1713).
(33) His third book (c. 1728).
Example 1.1a: François Couperin, augmented triads.

Example 1.2: Rameau, L'Enharmonique.

Whereas some vestiges of melodic tonality survived in polyphony, the primary source of monody for many twentieth-century composers, folk-song, was not a pronounced feature of the French composer's experience. The exoticism of Debussy was built on the internationalism of composers like Couperin, who wrote in his preface to Les gouts réunis ou nouveaux concerts (34):

Le gout Italien et le gout Français ont partagé depuis longtemps (en France) la République de la Musique; à mon égard, J'ay toujours estimé les choses qui le clairent, sans acception d'Auteurs, ny de Nation ....

Like Debussy, Tippett's background did not afford him rich contact with a living folk-music tradition. Strange to tell, his understanding of tonality was influenced by his reading of Vincent d'Indy (35) and, in turn, d'Indy's ideas have their origin in Rameau's theoretical writing and composition. The three crucial modulations for Rameau -- to the dominant, subdominant and the submediant -- are paralleled, admittedly, by the three common cadences -- the perfect, plagal and interrupted. But the extra significance d'Indy was later to attach to mediant and submediant modulations is already inherent in Rameau's designation of V -- VI cadences as "cadence rompu". Moments of exceptional dramatic importance elicit modulations to the submediant, major or minor. The metamorphosis of the statue in Pygmalion can stand as a model of this well-established procedure.

Debussy was confident that his own works were written "in accordance with the most recent discoveries of harmonic chemistry" (36). That this chemistry used not only the most recent inventions but also elements from the distant past and from distant lands, and reemphasised certain qualities in tonality which had almost been forgotten in the German domination of the European tradition, only adds weight and detail to Adorno's understanding (37) of the "material" of

(36) Lesure and Nichols, Debussy Letters, p.155.
the modern composer. Rather than referring to some system of sounds bequeathed by nature, Adorno was quite clear that the material of the composer represented the accumulation of the whole of his musical past. It is not only Debussy's emphasis on the linear which distinguishes his tonality. It is his suppression of many of the lessons he once assiduously learnt from Wagner. It is his sensitivity to lesser composers, like Musorgsky, Satie and Grieg. It is his open-mindedness, his unprejudiced ear in listening to the music of Java, or the gypsies of Spain, or American Jazz, or the music of the bohemian cafés of Montmartre. Everything of the past is available to the artist in his material, but it is his shaping of it, his expression of his "proclivities", as Adorno would say, that determines the power of originality. Debussy's tonality is a complex amalgam of disparate influences shaped into a hugely influential force that most twentieth-century composers have in turn had to accept or reject as part of their own material. Such freedom as they have is bequeathed to them by Debussy.

I wanted from music a freedom which it possesses perhaps to a greater degree than any other art, not being tied to a more or less exact reproduction of Nature but to the mysterious correspondences between Nature and Imagination (38).

The freedom Debussy found was discovered through the most exacting discipline. In Fêtes Galantes Book II, the tonal language is an integral part of his whole approach to musical meaning and structure. The cycle's tonality derives from the central musical ideas of a semitone plus a minor third and the augmented triad, and as it develops it relates modal, whole-tone, octatonic, chromatic and diatonic tonality. Tonality and line in Debussy can be defined as "the mysterious correspondences" between what Adorno calls "material" and Debussy's own discrimination.

In his essay, "The Musical Language of Ideologies" (39), John Shepherd equates the development of a more complex set of hierarchies in society with the hierarchical order of triadic tonality. Stravinsky's world was so different from Debussy's. Born into the undemocratic world of the Tsars, he first experienced heady success in the sophisticated world of early twentieth-century Paris, and then, in mid-life, embraced the order and discipline of Russian Orthodox religion. In so many ways cosmopolitan, the Russianness of Stravinsky's music remains identifiable in rhythm and tonality, a tonality which acknowledges certain tonal truths while at the same time attacking

them. Both Debussy and Schoenberg's music maintains a more profound continuity with their immediate pasts. Stravinsky, in Agon, despises the immediate past of semitonal leading-note-type progression -- certain higher dominant discords and diminished sevenths, for example, are eschewed (40) -- but he holds more stoutly than either Debussy or Schoenberg to the essential hierarchies of triadic tonality. The violence of Le Sacre du Printemps and the medievalism of works such as the Cantata, Canticum Sacrum and Agon are products of the same sensibility, the same life-experience. Had the transformation of society effected by the Russian revolution taken Stravinsky's music as a model, violence and conflict would not have been avoided, but traditional values of Russian culture would have been preserved, lacunae in the development of the nation would have been made good.

(40) Charles Wolterink tentatively attributes significance to this aspect of Stravinsky's music: "The scarcity of the 36 triads and 349 tetrads may also be because of their strong 'leading' tendency in tonal music." Charles Paul Wolterink, Harmonic Structure and Organization in the early Serial works of Igor Stravinsky 1952-57 (Ph.D. diss., Stanford, 1979), p.53. This theory that denial of Romantic and Post-Romantic "leading" notes is fundamental to Stravinsky's tonality, is borne out by his use of aspects of the Mixolydian and Phrygian modes and his frequent recourse to mediant harmonic relationships. All these characteristics share a common source in octatonic scales: flattened leading-notes, the major sixth of the Mixolydian mode and the minor second of the Phrygian.
Various theories have been posited to explain Stravinsky's interest in the past. He himself said that Pulcinella was his "discovery of the past, the epiphany through which the whole of my late work became possible. It was a backward look, of course -- the first of many love affairs in that direction -- but it was a look in the mirror, too" (41). It has also been suggested that he wished to fill the gaps in Russian musical history (42).

If Jacques Attali's theories are sustainable (43), it is to music we should look for prophecy. Rather than looking to Stravinsky's music for an accurate reflection of his own times, it is there we should look for the outcome of Gorbachev's reforms. Can Attali promise us a responsible and serious society that combines convincingly, as does Agon, both tradition and reform?

(42) Nigel Fortune in a lecture (Birmingham University, 1961).
(43) Jacques Attali, *Bruits; essai sur l'économie politique de la musique* (Paris, 1977), p.112: "Music is a credible metaphor of the real. It is neither an autonomous activity nor an automatic indicator of the economic infrastructure. It is a herald .... The cardinal importance of music in announcing a vision of the world is nothing new. For Marx, music is the 'mirror of reality'; for Nietzsche the 'expression of truth'; for Freud, a 'text to decipher'."
Rousseur (44) provides an alternative terminology for the main concerns of this thesis: the functions of tonality and line could well be defined as characterisation and differentiation. Although there is no full statement of the octatone (45) and no movement of Agon can be said to be “in” one or other of what Messiaen called “modes of limited transposition” (46), it is clear that many of the work’s “characterizers” and “differentiators” derive from them.

The reference here to Messiaen is not, of course, to imply that Stravinsky borrowed the pitch collection from Messiaen. Pieter C. van den Toorn has illustrated the deployment of the octatonic pitch collection throughout Stravinsky’s oeuvre (47). Messiaen openly theorized about his own use of the pitch collection. Stravinsky experimented with symmetrical divisions of the octave in childhood.

(45) Such as appears leading up to the great Eb chant near the end of Symphony of Psalms (1930).
(46) Olivier Messiaen, Technique de mon langage musical (Paris, 1944).
and the same pitch collection was not only used by him but was also used by his contemporaries, Rimsky Korsakov and Scriabin. One could imagine that Stravinsky found the collection in the work of his contemporaries or perhaps earlier, in childhood, by transposing the minor tetrachord of the opening notes of a Russian folk-song (exs. 1.3a, 1.3b and 1.3c).

Example 1.3a: The minor tetrachordal opening of a Russian folk-song and its transposition up an augmented fourth.

Example 1.3b: The resulting octatonic collection.

Example 1.3c: The 0235 and 0134 tetrachordal articulations that van den Toorn traces through Agon: the two intervallic patterns that may be derived from the octatonic collection using adjacent notes.

So readily is the relationship between the vernacular and Stravinsky's

(48) Stravinsky and Craft, Expositions and Developments, p.71.
invention intimated. Stravinsky's interest in these modes, and
intervallic patterns derived from them, shares the same zeitgeist which
produced Schoenberg's so-called atonality and its codification into
serialism. Codification was an essential feature of Stravinsky's
compositional technique, "always in search of rules by which to play
the game" (49), whereas the process that allowed Schoenberg to move
from the fluent outpouring of subconscious obsessions in Ewartung to
the earliest serial pieces, the Serenade (1920 - 23, not totally
serial) and the Suite for instrumental septet (1924 - 26), must have
required adjustment. Schoenberg was perhaps responding to his public's
rejection of the "atonal" works, and his choice of old formal models
for these pieces may further indicate his concern.

It is the intention of this study to approach one of the first
serial compositions of Stravinsky while aware of his rich and complex
heritage. Van den Toorn dismisses the possibility of "scanning
Stravinsky's material where it embodies essentials of this immediate
but soon-to-be-discarded heritage" (50), but, because of similarities
between Stravinsky's and Webern's codification, he is able to discover
the roots of Stravinsky's serialism. There may be some truth in the
hypothesis that Stravinsky was just waiting for Schoenberg's death
fully to realise the relationships, of which he was well aware, between
his compositional methods and the Schoenberg school's, but it would be
to distort chronology to imply that history had not already mapped out

(49) Glenn Watkins, "The Canon and Stravinsky's Late Style," in
Confronting Stravinsky, ed. Pasler.
the common territory occupied by composers as different as Stravinsky, Schoenberg, Webern and Messiaen. When critics were deeply involved in the advances of Modernism they could see only diversity, and for some, Stravinsky's adoption of serialism was profoundly shocking, and for others, a Pauline conversion. It seems to the present author that both Poulenc's description of Stravinsky as "a traitor" (51) and Adorno's championing of Schoenberg above Stravinsky (52) derive from misunderstanding, misunderstanding which is thoroughly corrected by van den Toorn's *The Music of Igor Stravinsky*.

Richard Taruskin (53) has shown how Stravinsky, throughout his work, merged what were two distinct traditions in Russian music, the folklorist diatonic school of Serov and Balakirev and the fantastic-chromatic school of Glazka and Rimsky-Korsakov. It is surprising, in the light of Stravinsky's contemptuous references to "Vodka-isba-balalaika-pope-boyar" and his regrets about Bartok's obsession with folk music (54), to find that the exploration of

(54) "I never could share his lifelong gusto for his native folklore. This devotion was certainly real and touching, but I couldn't help regretting it in the great musician." Stravinsky and Craft, *Conversations*, p.74.
symmetrical third relations typical of Rimsky-Korsakov and the folk-tune "Dorian-modalism" of Balakirev combine in the two minor tetrachords of The Rite of Spring. "Such tetrachordal/tritonal oppositions had been prefigured in the chordal prologue to Borodin's Prince Igor and in Rimsky's Kaschei the Deathless," Taruskin points out, "but never as a vertical juxtaposition generating 'polytonal' harmony".

In his youth, Stravinsky was familiar with the pioneering work of Eugenia Linyova, who made the first recordings of Russian folk music. He found the unaffected performances congenial. For him, the primitive offered a cleansing and classicizing corrective to post-Romantic self-indulgence. His life's work can be seen as a fulfilment of Eugenia Linyova's prophecy:

It is probable that in spite of many unfavourable conditions, folk song, in the process of disappearing in the countryside, will be reborn, transformed, in the works of our composers. It will be reborn not only in the sense of borrowing melodies from the folk - that is the easiest and least gratifying means of using it; no, it would be reborn in the sense of styles free, broad and lyric; in the sense of bold and complex voice leadings, the voices interlacing and separating, at times fused with the main melody, at times departing radically from it. A rebirth of this kind ... we await in interesting and bold compositions by musical innovators, both at home and abroad (55).

(55) Eugenia Linyova, The Peasant Songs of Great Russia As They Are in the Folk's Harmonization (St. Petersburg, 1904–9) II, p.75.
Could she have foreseen how her prophecy was to be fulfilled?

Substantial passages of Agon are dominated by the character of the octatonic scales, and the minor third links, with alternating major and minor seconds, that form the sequential pattern of the scale, are familiar constituents of melodic and harmonic material throughout the work.

The significance of folk-music in Stravinsky's development does not eclipse his debt to the history of Russian and European counterpoint. Within the context of a work like Agon, lines and fragments of lines frequently suggest a mode or key. One perception of such tonal significance will certainly differ from another, but there is no doubt that the terms polytonality and bitonality have been used of Stravinsky's music unsatisfactorily to label a rich and complex inheritance of different kinds of tonality which the analysis of Chapter Two attempts to unravel. It is a notable characteristic of Stravinsky's music that it preserves differences while achieving coherence.
Discussing the perceptions of Anton Ehrenzweig (56), Tippett describes him as "a disciple of Freud and an amateur of Schoenberg" and himself as "a disciple of Jung and a lover of Stravinsky". Analysis of Tippett's Sonata No. 3 for Piano (1972-3) reveals characteristics which are perhaps attributable to the very different influences of both Jung and Stravinsky. Indeed, the specific influence of Agon in determining many facets of Tippett's style from 1958 onwards will be the subject of later discussion. The main burden of Ehrenzweig's argument is to emphasise the universal need "to project aesthetic order upon everything presented to us" (57). There seems to be an echo of Ehrenzweig in the opening paragraphs of one of the most admired of recent contributions to the development of music analysis, David Epstein's *Beyond Orpheus*:

Structure, analysis, the study of systems - these are in large measure the intellectual currency of the twentieth century. Their domain has long since extended beyond 'objective' data, the seeming province of physical science, to pervade methodology, even conceptualization, in such 'inexact' fields as the social sciences and the arts (58).


If the whole aesthetic urge can be characterised, as Ehrenzweig suggests, as the need to impose order, then it is certainly relevant that current systems for understanding structures should be applied to music. But Tippett seems to wish to offer a corrective to Ehrenzweig: "To use the psychoanalytical disciplines as Ehrenzweig does to examine the aesthetic experience, is really to be taken behind the scenes and to see the matter from the wings and the flies and the trapdoors" (59). Like Tippett, this study is concerned with a subjective and direct experience of art. Discussing a newspaper article, "The New Puritans", about a new generation of unsentimental and hard-headed university scholarship candidates, Tippett takes his concern for the unmeasurable further. Against David Epstein's claim that the study of systems dominates contemporary thinking, he would put "the real revolution of our time, the discovery and invention of the Unconscious" (60). What links the half-articulate offering of composer and the half-articulate re-ordering imposed by a listener, remains a mystery.

Lukacs (61) says that the aesthetic emerges from the practical and the magico-religious, that it assumes abstract forms: rhythm, symmetry, proportions and ornament, and that it can be defined by its specificity which falls between individuality and universality.

(59) Tippett, Moving into Aquarius, p.91.
(60) Ibid., p.107.
Peter Fuller argues:

The material basis of the 'spirituality' of works of art is not so easily dissolved. I think that it may lie in their capacity to be expressive of 'relative constants' of psycho-biological experience, which, however they may be structured culturally, have roots below the ideological level (62).

Somewhere in these different views is some common ground. Lukacs can define the area in which the aesthetic exists: it is in that space between an artist and the public -- between half-articulate offering and the sum of all the half-articulate re-orderings -- but he is no nearer defining it than Tippett: it remains a mystery. Fuller suspects that this mystery, for which all men and women have need, must be explicable in terms of psychology and biology. Tippett is one of the most articulate of composers, in words, and one of the least finished, least fully realised, in notes. He chooses only to hint at some universal need when he quotes a Unesco essay on "The Problems of Negro Culture" which seems to show clear parallels between Jung (63), Mozart's The Magic Flute (64) and Dogon Negroes:

(63) Carl Jung, Psychologie und Alchemie (Zurich, 1944).
For example, since 3 is a male number and 4 a female number, the sum of the two expresses the complete being, that is a double being, partaking of both sexes (every being having two souls, one of either sex). This indicates that the true unit is composed of a couple. But this couple, although complete, cannot be perfect unless it possesses the priordial Word, the promotor and Monitor of Creation: and this Word is represented by the figure 8, that is the couple 7 is represented by the figure 8, that is the couple 7 with the addition of the One (65).

A common truth exists, he seems to say, but at the same time he prefers to preserve the mysteries.

Both composer and listener draw upon different incomplete collections of experience, and there is a parallel, but not a match, between the variety of tonal truths inherited by the composer and the variety of codes inherited by the analyst. The advice that Arnold Whittall offers analysts in approaching the work of modern masters gives a push towards this study’s pluralistic stance:

Like all the modern masters, Stravinsky will continue to elude the explicatory strategies of analysts until they become, if not positively indecisive, at least less single-minded (66).

(65) Tippett, Moving into Aquarius, p.107.
The author makes an intuitive and subjective decision to follow what linguistics has taught us about meaning, to look for the axes of pitch organisation and to explore the relationship between those axes in a few select works.

The stance of the author as analyst is that of a member of Tippett's audience (67). He avoids looking at the matter from "the wings and flies and the trapdoors" while acknowledging that any complete definition of tonality would have to include psychological, sociological and physical perspectives. To preserve an impression of the analyst's direct perception it is important that analysis follows the progression of each piece.

In recent reading the author has come across the term "limited whole" in two very different contexts. The first was a book about current science (68) where the term was applied to consciousness and the self. The second was in the opening sentence of a summary of a life-time's work in philosophy: "The idea of a self-contained unity or limited whole is a fundamental instinctive concept" (69). In perceiving tonality we hear parts of things and intuit whole things. A questioner at Judith Weir's colloquium on her forthcoming opera, Blond Eckbert,
heard Weir's music as "tonal" whereas Weir herself preferred to talk about "the use of tonal centres" (70). In experiencing art we assume continuities only hinted at. Danah Zohar suggests that individuals' sense of identity is shaped and reshaped by inheritance and life experience (71). Individual perception of tonality is determined by previous and continuing musical experience. Music and tonality are, like human consciousness, limited wholes. This guarantees that no two people will have quite the same understanding of tonality. But it also guarantees that the powerful impact of music becomes, at least in part, a permanent feature of one's tonal perception.

The single definition of tonality which can be used of all the works referred to, including the author's own, is given on page 10: "Tonality is the organisation of pitches within a work so that a part relates to the whole, or a detail to the part". This definition is, as it were, the lowest common denominator. It needs to be qualified by everything already said. To recapitulate: any work of art, a self-contained unity, is necessarily a limited whole. And in its limitation it is received as a whole by the limited perception of the listener. The limited whole, the piece, is part of the wider limited

(71) Zohar, The Quantum Self, p.166: "As quantum selves, we make ourselves as we go along, weave the fabric of our being through our ongoing dialogue with our own past, with our experience, with the environment and with others."
whole of the history of tonality. And all tonality is a function of the even wider limited whole of human society. The ordering and reordering of society is paralleled in the making and remaking of tonality. But the experience of the complex of musical and non-musical functions and allusions which inform the self-contained unity is subjective.

As van den Toorn concludes, "in our seeking to hear and understand, we recognise that the quest must be of our own making" (72).

CHAPTER TWO

The Analyses

Debussy's Fêtes Galantes Book II

i. Les Ingénus

ii. Le Faune

iii. Colloque Sentimental
The ways in which Debussy's *Fêtes Galantes* Book II fulfills the Chapter One definition of tonality should be established by the end of the foregoing analysis. An augmented triad, a pattern of contiguous notes where a minor second is followed or preceded by a minor third, and octatonic, whole-tone and Dorian modes provide the material which relates the cycle's parts to its whole and its details to its parts, but this is perceived gradually. The full significance of these elements, as will be seen, is not achieved until the last song's final cadence.

The first fifteen bars (which may be called section A) of the first song, *Les Ingénus*, exemplify Debussy's favourite procedure of building in two-bar phrases with subtly varied repetition. The music floats in a vague F modality (major third and minor sixth). The first two bars of the piano introduction repeat the motive (ex. 2.1).

Example 2.1: *Les Ingénus*.

Its A natural denies an F minor tonality and its E natural denies a Bb minor tonality. Its composition is of two interlocking triads: pitch classes 5, 4 and 1; 1, 0 and 9—a falling semitone followed by a falling minor third. The left hand when it enters plays two chromatic
fragments and a major second repeated at the octave. The outer notes of the initial motive, the first notes of the left hand fragments and the first vocal phrase all emphasise the notes of the augmented triad: F, A natural and Db (ex. 2.2a, b and c). The second two-bar phrase of the piano introduction extends the initial motive with a sequence of major thirds descending by semitone (ex. 2.3).

Example 2.2: Les Ingénus.

Example 2.3: Les Ingénus.
When the first two-bar phrase is repeated, the seconds of the left hand are displaced from the first bar to the second, and are tied over the beginning of a repeat of the second two-bar phrase with its descending thirds' extension. This displacement has a knock-on effect on the repeat of the chromatic fragments, and the third use of the octave leap of major seconds is inverted. The section ends with a series of indecisive modal cadences: Gb - Ab - Gb - Ab - Gb.

The semiquaver falling third of the initial motive is maintained in the middle section (bars 16 to 36), rocking back and forth from Eb to B. The repeating patterns of this section reinforce in retrospect the ostinato-like function of ex. 2.1 (p.39) and of the major seconds repeated at the octave. The octatone that Stravinsky built from juxtaposing the minor tetrachords of Russian folk-song, is itself juxtaposed with more orthodox diatonicism and chromaticism in part A's vocal line. At the outset of B the whole-tone scale, another symmetrical division of the octave, prevails (ex. 2.4c, p.42). The texture is much fuller, with a repeated C, D, E quaver pattern introduced as a new "alto" line, and a left hand repeating successively a spread chord C/Ab/E (quaver), another augmented triad; a Bb quaver preceded by a C acciaccatura; and a chord D/Gb (quaver) preceded by an Ab acciaccatura.

The accompaniment and vocal line use all and only the notes of the whole-tone scale from bar 16 until bar 24 when an F is introduced in the bass. Only those notes remain that can anticipate resolution in F minor. In bar 26, the "alto" line quaver pattern goes up to D, E, F, and the vocal line looks set for an F resolution, but the resolution is
side-stepped with the introduction of a key signature: Gb major. Despite the liberal use of added seconds for the four bars of the *Peu à peu animé* there is no disguising a clear Gb major, rooted firmly in the tradition of European triadic tonality.

Example 2.4: *Les Ingénus*.

The modulation into Eb for the *Toujours animé* shows how Debussy is quite willing to use modulation to increase tension while he avoids the more conventional fourth/fifth based modulations of major/minor tonality. In the *Peu à peu animé* the rocking thirds are extended in a conventional tonal sequence; in the *Toujours animé* they disappear from the accompaniment only to provide the rising sequence of the vocal line. While the melody has the character of the Dorian mode on F, the repeated rising scales of triads in the accompaniment of the *Toujours animé* section would seem either to predict a full close (the repeating
Bb chords assuming the role of dominant) in Eb, or, following the linear logic of contrary motion, on a "Phrygian" G (1). Instead we are returned to the tonally ambiguous world of the opening, but it is transformed (A: bars 37 to 53). The thirds are given as chords an octave higher; the semiquavers fall through sixths; the harmony is enriched, the first chord being the significant augmented triad: F/A natural/Db.

It is the freest of recapitulations. The section does not continue to mirror A but becomes more of a summary of the whole song. At bar 42 the rocking Cs and Abs first heard at the beginning of B are similarly transformed. For a moment it seems possible that the whole-tone scale will reassert itself, but at bar 46 there is a strong suggestion of the dominant of C major. At the beginning of the Lent we are prepared for a final cadence in C but again the expected is side-stepped; after all, will the piece end in Bb minor? No, the Fs, Dbs and As of the opening return, and the piece ends on a wide spread augmented triad - F/A natural/Db. The pattern of the lower notes of the interlocking major thirds of ex. 2.1 (p.39), so prominent in the accompaniment of this section, is now also a prominent part of the vocal line, coming twice as p.c. 1, 0, 9, once as p.c. 8, 7, 4, and twice as p.c. 5, 4, 1, 1, 0, 9 and 5, 4, 1 each contain two notes of the recurrent augmented triad F/A/Db (5, 9, 1).

(1) The name of a mode is given in inverted commas when the choice of notes, either successive or simultaneous, seems to have been determined by reference to a mode.
The vocal line of this section also recalls the augmented triad of Section B: C/E/Ab (0, 4, 8). The final section is thus much more than a ternary form repetition. Rather, it would seem to anticipate, in its careful summary of line and tonality, the twelve-tone tonality of George Perle (2). This is illustrated in ex. 2.5 a - d.

Example 2.5: Les Ingénus.

Without knowing the genesis of the work, it is impossible to say whether it is the augmented triad which provides both starting point and Grundgestalt, or the 1, 0, 9 -type patterns or the modes -- octatonic, whole-tone and "Dorian" -- that inform the vocal line and its sympathetic harmonisation. What is clear is that they are all interrelated. In noting the achievement of coherence in the use of triads and modes one should acknowledge that they perfectly capture the ambiguity of mixed remorse and anticipation which Roger Nichols (3) has suggested was the psychological starting point for these songs: Debussy's break with his first wife and the beginning of his liaison with Emma Bardac. The second book is certainly very different in mood from the celebration of the first which Nichols attributes to his affair with Gaby. So perfectly do the p.c. 1,0,9 pattern and the augmented triad capture the sour-sweet nostalgia of the whole work and so pervasive are they in its structures that they parallel the function of prominent symbols in symbolist poetry. These not wholly musical ideas will henceforth be referred to as the first and second symbol respectively.

The piano part of Le Faune begins with a solo line flourish, ainsi qu'une fête, suggesting a D minor/"Phrygian" modality. When the left hand enters (bar 4) très lointain, sans nuances, mais pourtant bien rythmé, it asserts the key of B (4) alternating Bs and Ds in a rhythm suggesting antique dance and the antic posture of the vieux faune de terre cuite! The flute scale (D, Eb, F, Ab, Bb and C#), the left hand rhythm and the ensuing right hand bare fifths, all suggest the same ancient world. It also includes the first of the first song's symbols (ex. 2.6) with no less than three versions of the 1, 0, 9 triad: 5, 2, 1; 1, 2, 1; 8, 5, 4.

A reduction of the opening flourish of Le Faune to show its 1, 0, 9 -type triads and its use of the B₃₇th chord:

Example 2.6: Le Faune.

The first full triad (bar 60) in the right hand is the second symbol, the augmented triad of Les Ingénus, but this time expressed as F/A/C#.

(4) The bare fifths of the horns clearly suggest the key of B without confirming its character as major or minor. Throughout this study where a certain tonality is clear, but where modal or bitonal writing precludes definition of a key as major or minor, the single letter name will suffice to denote tonal significance.
The melody that follows introduces a three-note, semiquaver, "Phrygian" anacrusis, and extends the crotchet movement of the opening fifths and the dotted rhythm of the left hand. Constant references are made to the augmented triad, the notes of which, together with the Bb key signature, anticipate a D minor resolution (bar 66) only undermined by the bass insistence on G. Even that seems about to fade out in bar 65 only to resume when the right hand reaches its D minor triad.

It is worth looking at moments where the progression in the right hand suggests something more than parallel movement. At two points it would seem that the music resolves on to the second symbol, a chord which would not previously have been thought suitable as a point of resolution. One (ex. 2.7a) combines a I – V and two mediant progressions; another (ex. 2.7b) has two semitonal leads opposed to a whole-tone, flattened seventh, quasi-modal progression.

Example 2.7: Le Faune.

Another two, at the beginnings of bars 61 and 63, offer fleeting examples of bitonality. The central augmented triad plus the "Phrygian" anacrusis lead, all notes moving in semitonal steps, to an F# triad. One set of tonal implications is worked out simultaneously with
another, the rocking Ds and Gs. According to Réti (5), Debussy made regular use of pedal points to let "melodies be understood in their own right and not as melodically extended harmonic progressions". No doubt the strength of Debussy's linear thought determines the right hand harmony, but the conflict between linear tonality and the drone is savoured. And the parallelism, rather than simply being "chordal melodies", often results in strong tonal progressions which openly vie with the rocking bass. At the same time that one perceives left and right hand harmonies as independent, all the chords can be heard as higher discords belonging to the G/D bass. This ambiguity gives Debussy's bitonalities quite a different quality from the equally poised C and F# of Petrushka.

The vocal line's absence from this section (bars 54 to 66) affords an opportunity for the kind of musical scene-painting that has earned Debussy the title "Impressionist". The G/D ostinato, only absent from the first three bars and reduced in bar 65, extends throughout the piece, winning from Nichols the accolade: "one of Debussy's most extended and imaginative passages of ostinato" (6).

The vocal line begins in a definite D minor, as definite as it can be, that is (the undermining G/D drone continues). It proceeds to a "Dorian" D, a gypsy-like combination of F minor and the "Lydian" mode,


more "Dorian" D, and further modulations undefinable in these terms. To find a unifying principle one need look no further than the first song's first symbol. The vocal line contains numerous references to its minor third and semitone (ex. 2.8a). All those parts of the vocal line not directly provided by the symbol are simple and "pure" in their modality. It is instructive, at this point, to note the same principle at work in the cycle's last song, Colloque sentimental (ex. 2.8b).

Example 2.8a: Le Faune.

Example 2.8b: Colloque sentimental.
The importance of the vocal line in Le Faune is offset by the simplicity of the accompaniment: apart from the continued bass ostinato there are only simple sustained harmonies until, between the third and fourth lines of the poem, there is, as it were, a brief statement of the ritornello. The opening "flute" line is given altered and over the ostinato bass with added harmony (Bb flattened seventh). The Bb flattened seventh chord is a prominent feature here and in the closing bars of the song. Looking again at the song's opening flourish (ex. 2.6, p.46) and at bars 31 to 33 of Les Ingénus, one sees that the chord has already played a significant role. Its appearance here is its first in this song after its disguised presence in the opening flourish, and, sforzando, it seems to give a hint of the menace in the faun's laughter while completing a linear progression: D, C#, C, Bb. The harmony becomes more chromatic and changes more often, under the fourth line of the poem, without contributing to thematic matters. Its wholly chromatic movement perfectly captures the faun's presaging of disaster. Each harmonic change is determined by the linear logic of semitonal movement.

From the Un peu animé the harmonies thicken. In bar 78 an "alto" line imitates the rhythm of the bass and the intervals of the vocal lines; lines five and seven of the poem are each, to begin with, set to three full crotchets; repeated quavers also figure prominently. From the A tempo, music which resembles the opening ritornello, including the three-note, semiquaver, "Phrygian" anacrusis and the dotted rhythm, accompanies the vocal line. At bar 84, spread demisemiquaver seventh chords in the right hand resemble the initial "flute" flourish. An
extended and rhythmically altered version of the opening "flute" flourish together with an abridged version of the rest of the ritornello ends the piece on the formally significant augmented fifth $F - \text{C}$ while the bass ostinato fades.

The "thicker" harmonies in the first to third bars of the Un peu anisé (bars 77 to 79) are clusters of white-note quasi-Mixolydian harmonies with a sequential linear logic (ex. 2.9a). The second leap in the sequence widens each time, and at the beginning of bar 80 the harmonies abandon "Mixolydian purity" for chromatic discord. As can be seen in ex. 2.8 (p.49), the setting of Mélancoliques pélerins is especially rich in 1, 0, 9-type melodic shapes, and it would appear that this linear tonal significance is anticipated in the harmonies of bar 27. In ex. 2.9, the linear significance of the harmonies is given above the chords.

Example 2.9a: Le Faune.
Other features of this tonal emphasis on line can be seen in the progressions from bar 80 to 81 and 82 to 83 (ex.2.9c), where chords linked by chromatic and diatonic progression are dislocated to emphasise the C - F# interval at the core of the cycle, and again in the final resolution where the full importance of the Bb flattened seventh chord is revealed as a kind of dominant to the "tonic" of the F/A/C# augmented triad (ex.2.9b).

![Example 2.9b and c: Le Faune.](image)

In Colloque sentimental one searches in vain for any use of the augmented triad so prominent in the first two songs, until one wonders why, when in the other songs Debussy eschews obvious cadences, in this song he cadences overtly. Then the key to the tonal structure of the whole song-cycle is revealed. The first two cadences resolve on F (bar 96 and bar 107), the third on Db (bar 132) and the final cadence on A, in more senses than one the key notes of the cycle. The cadences also provide a measure of conventional finality suitable to the last song in a cycle, while none is wholly orthodox (exs. 2.10, 2.11, 2.12, p.53, and 2.13, p.56).
Example 2.10: Colloque sentimental.

Leur pa - ro - les.

Dans le vieux parc so - hi - taire

Example 2.11: Colloque sentimental.

Retenu - - - - - a Tempo

Où nous joignons nos bo - ches!

C'est possible.

Retenu - - - - - a Tempo

Example 2.12: Colloque sentimental.
The first cadence, as in Fauré (7), avoids letting the leading-note rise to the tonic; instead, it becomes part of the resolution, to the extent that the vocal line enters on it and is able to confuse matters by proceeding as if in the Aeolian mode. It does have a "leading-note" in the bass, however: a quasi-Phrygian flattened B. The whole-tone harmonies of the opening bar may be compared with bars 84 and 85 of Le Faune (ex. 2.9, pp.51 and 52), where similar dominant seventh chords with diminished fifths are used. Another point of comparison with Le Faune is when an intervalically augmented version of the first symbol is used, the semitone becoming a tone and the minor third, major. (See ex. 2.9, pp.51 and 52, and compare bar 82 of Le Faune with the opening notes of Colloque sentimental.)

(7) From numerous possible examples here is a cadence from the end of the first song of Fauré's La Bonne Chanson, Une Sainte en son auréole. Whereas the leading-note repeatedly falls, there is a sharpened fourth which leads to the dominant, a device, as will be seen, still popular with Stravinsky in the 1950s.
The second cadence makes a resolution, onto an F major seventh chord, more obvious than the first. The whole-tone quality of the previous bars' tonality is respected in the cadence, where a single line moves simply by whole-tone step -- Bb, Ab, Bb, C, D, E. At the same time, echoes of a traditional plagal cadence, Bb – F, are heard from the beginning of bar 106 to bar 107.

The third cadence finds a full resolution on Db, but only after an Fb dominant seventh chord. The relationship with the Db major triad that follows is rich in semitonal and dominant-tonic progressions: Fb to F natural; Ebb to Db and Ab to Db; but the whole relationship is mediant and it encloses the symbol F, Fb, Db.

The last cadence is preceded by the symbol E, Db, C, and contains the symbol Db, C, A. A "Phrygian" Bb to A progression is promised but the last chord includes a perfect cadence: the notes B natural and E enter under the upper notes of the final A minor resolution.

Only the first of the three songs has a clearly sectional structure; at least in part it resembles conventional Song Form. This, the last song, has a definable middle section (bars 111 to 142) held together by a pedal Ab, though the repeating Abs are anticipated in bars 17 and 18; and there seems to be a prelude to a repeated "A" section made up of a fragmentary reference to the opening material in bars 141 and 142. In the event, "A" never returns, unless one can see the slightest of hints of it in the final cadence (ex. 2.13, p.56) and in the rhythms of the vocal line.
Example 2.13: Colloque sentimental.

The opening of the last song, marked Triste et lent, is highly atmospheric and astringently economical. Until the first cadence we are in the whole-tone scale with repeated use of ties, triplets of quavers, and quavers and crotchets. The vocal line interrupts the first cadence and continues unaccompanied for the first line of poetry. A fragment of the initial texture is introduced before the second line, and lingers underneath it. All these fragments owe something to the symbol which sometimes, as in bars 98 and 100 to 101, appears unaltered, sometimes with intervals, one or both, augmented as at the opening or in bars 99, 101, 102 or 103. The third line is accompanied by a more complete version of the opening material, which makes the same harmonic progression that provides the move towards the final cadence: compare ex. 2.14 with the final cadence (ex. 2.13).

Example 2.14: Colloque sentimental.
Although line six is given almost the same rhythm as line two, the actual notes and words have changed. As in bar 96, line five is set off by a cadence on F; though slightly delayed compared with the earlier instance, the harmony is sustained under the vocal line, and the slight alteration in the rhythm of line six allows for no introduction of a fragment of the initial texture. As with the music that followed the first cadence, any certainty of F tonality is immediately denied; after line one it was an Eb that spoke the denial; after line five it is an Ab: the very Ab which anticipates the repeating Abs of the middle section; the Ab which is the seventh note of the by now familiar quasi-dominant Db flattened seventh chord.

The whole of the next section (bars 111 to 142, Un peu plus mouvementé) has a key signature of Db major, a key constantly denied by its rich harmonies (apart from the Db cadence already discussed, and even that is denied by an Fb in the following bar). Not only does the section bring a new key but also new texture, new harmonies, new rhythms, new dynamics and new melodic shapes in voice and piano parts. All this rich invention is anchored by the Ab pedal, continuously drawn to our attention by its off-beat rhythm:

\[\text{\textit{etc.}}\]
Nichols finds Colloque sentimental "the most moving song Debussy ever wrote" (8) and cites the different styles of music allotted to the different characters: "a plain chordal style" for the disenchanted lover, "a richer, more operatic style" for the other, and a "spare, linear recitative" for the narrator. The reappearance of the nightingale's song (ex. 2.15) from En sourdine, "as the first ghost begins to reminisce", he finds particularly poignant.

Example 2.15: Colloque sentimental.

It may seem strange to someone brought up in the tradition of German lieder, or even stranger to someone familiar with Italian opera, to hear this song described in such terms. The power of Debussy's expressivity has to be understood in his own terms: "How much has first to be discovered, then suppressed, before one can reach the naked flesh of emotion" (9). For Debussy, silence was the most powerful means of


(9) Lesure and Nichols, Debussy Letters, p.250.
expression (10). The comparative extravagance of this section makes it an emotional effusion of almost unbearable intensity.

The main idea of the section (ex. 2.15, p. 58) provides ritornelli at bars 111 to 113, bar 119, and, as if to scotch any notion that this song is in ABA form, at bars 146 to 150 to end the song. The ritornello also recurs in the accompaniment in various extensions and different harmonizations from bars 122 to 129, anisez et augéitez peu à peu, building up to the cycle’s only forte climax.

The first symbol appears repeatedly, from the last Ab of bar 110 (Ab, A, C), in bar 113 (E, Db, C), bar 114 vocal line (G, Fb, Eb), bars 116 to 117 (C, Eb, D), bar 118 (E, Db, C), bar 119 vocal line (Fb, G, Ab and G, Ab, Cb), and bar 120 (E, Db, C). As the f climax is reached, the vocal line sings bonheur indicible, again using the intervals of the first symbol: Db, Ebb, Fb, Ebb. As the voice sustains the penultimate syllable of indicible, the first symbol is heard yet again, in octaves in the accompaniment (F, Ebb, Db). Although this song’s only obvious use of the Db/F/A natural augmented triad is in its selection of cadences, at the forte climax (bar 129) Db and F natural are present (ex. 2.16, p. 60).

(10) Ibid., p. 56.
Example 2.16: Colloque sentimental.

The following sudden *pp* and *Retenu* make the memory of the ghost's kisses (*où nous joignions nos bouches*) all the more ecstatic, accompanied by the stilled Ab and by full seventh chords moving in whole-tone parallel - Fb, Gb, Ab, Bb - the last, so prominent elsewhere, is just touched on here, but it provides a first symbol in the progression from bar 130 to 131: Bb, Cb, Ebb.

The Db cadence, *pp*, a tempo, bar 132, affords a setting of the words *C'est possible* that is at once reticent and pregnant with repressed emotion. We are allowed to dwell on what might be behind the ghost's reluctant admission as the third cadence repeats. This time a minor seventh on Gb, with the Ab as an added second, gives the progression a plagal flavour, and it includes the Fb, F natural, Ab symbol. The Gb chord returns (bar 135) to inform the harmony of the next three bars. The Eb, Db, F of the inner part in bars 133 and 134 is given a modified repeat in octaves and at a higher pitch in bar 135: Eb, Db, Fb. From bar 138 to bar 142, although the diminished sevenths remain, the associated descending figure (ex. 2.15, p.58) is missing; presumably it is being held in reserve for the next section, although,
as has been said before, the reference to the opening material in bars 141 and 142, Retenu, seems to prelude a conventional return which in fact never happens. Instead, the initial tempo and dynamic range return; the vocal line's rhythms also recall the first section, but the accompaniment proceeds with nothing more than a series of parallel ninth chords, their hesitating syncopation suggesting the movement of the ghostly pair, *Tels ils marchaient dans les avoines folles*.

*Plus lent en allant se perdant jusqu'à la fin*, to characterise the listening night ex. 2.15 (p.58) returns, but *pp* and getting quieter and slower to the final cadence's faint echo of bars 101 and 102. Rearrangements of the semitone/minor third pattern inform the final section's vocal line: G, B, Bb; F#, G, E. It also returns with ex. 2.15 to be given in bars 146, 147 and 148. The strength of the Db to C movement in bars 146, 147 and 148, makes the final resolution in A, though only gently -- almost illusively -- touched upon, necessary. Both symbols, Db, C, A, and the augmented triad, F/Db/A, find their fulfillment in that final *staccato* crotchet A.

The final bar (150) gives an example, perhaps, of what Debussy meant by claiming that he had discovered a new power of expression in the use of silence. Harmonies (a point often disregarded in contemporary analysis) resonate in the mind's ear; a note is still only to be displaced by the next note in the same voice. Although the upper notes of the cycle's closing triad are sustained and the As in the bass are not, the A resolution continues to relate, after it has sounded, to the memory of the Db, C, A sequences and the architectural plan of the F, Db, A cadences.
In the cycle as a whole there are several instances of this use of silence, full of the memory of sound. In the fourth and fifth bars of Colloque sentimental, for example, after the major seventh of the F chord in bar 96 is just touched upon, the voice takes it up, and its repetition in bar 97 invests the whole unaccompanied line with an uneasiness which is the conflict between the "Aeolian" line and its remembered, though not sounding, F major accompaniment. Between bars 144 and 145, the Bb flattened seventh added second chord, unheard, supports the vocal line as it begins, Et la nuit seule. The C entering at the end of bar 145, belonged to the previous harmony, as did the vocal line D, but the A, a bare fifth and an octave below the E of seule, completes a "Phrygian" progression from the Bb, with an interval which sounds all the more desolate and hollow for having completed a progression, the first part of which was only a memory.

In Le Faune, the Eb of the third bar is sustained, waiting for its quasi-Phrygian downward semitonal resolution, but it comes two bars later displaced by an octave. The memory of the Eb hovers over the dance-rhythms of the ostinato, like the worrying menace in the faun's laugh. The strength of the Bb flattened seventh chord in bar 71 is the result of its earlier absence. The A natural of the penultimate right hand fifth completes the augmented triad of bars 91 and 92.

In Les Ingénus, there seems to be an alternation between harmonies of the F, A, Db group and the G, C, E. Notes sustain in the memory to transform single lines into parallel thirds. Even progressions like the broken chromatic scale in the left hand of bars 10 and 11 -- Db, D, Eb; F, F#, G -- is made more eloquent because of its expected but missed E
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Example 2.17: Fêtes Galantes Book II.
What is to be learnt from ex. 2.17? F major and, in Le Faune, its relative minor are the most pervasive foci but remain understated. There is a gradual chromatic upsurge throughout the cycle. The key notes of the augmented triad enclose the cycle. The outer songs have a prominent traditional tonic/dominant relationship coloured by augmented fourth/diminished fifth relationships. Thus the whole cycle provides a progressive tension giving momentum to music which is often ostensibly relaxed to the point of being static and which creates a generative poise between symmetry and asymmetry.

The cycle has particular significance for the author. Its understatement, its use of sound-filled silence, its original functions for traditional procedures and its balancing of triadic tonality with augmented-fourth/diminished-fifth oppositions have been valuable models. Its simultaneous use of a chromatic progression (F, Gb, G natural, G#, A), ancient modes, symmetrical divisions of the octave and the pervasiveness of certain intervals, anticipates the rich variety of tonal function in Stravinsky and Tippett. The ultimate realisation of the notes of an augmented triad as the foundations of the whole cycle anticipate Stravinsky's careful achievement of C as the work's tonal centre at the end of Agon and Tippett's justifiable assertion of A major with elements of B minor at the end of his Piano Sonata No. 3.
Stravinsky said that the composers of his generation and he himself owed the most to Debussy (11). From a composer who always professed to compose with his attention fixed on the vertical significance of notes (12), this may seem to fit oddly with the claim begun to be made above that Debussy's emphasis on the linear was what made him the most seminal of twentieth-century composers. Debussy for his part, one suspects, would not have wished so neatly to summarise his contribution. He was interested in expanding all musical possibilities and he was moved to write to Stravinsky: "For me it is a special satisfaction to tell you how much you have enlarged the boundaries of the permissible in the empire of sound" (13).

(12) Ibid.
(13) Quoted by Nichols, "Debussy", The New Grove.
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<thead>
<tr>
<th>Bar nos.</th>
<th>PART ONE</th>
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Note: Throughout, the letters O, I, R and RI are used to indicate the Original, the Inversion, the Retrograde and Retrograde Inversion of a series.
Close and continuous analysis, necessary in Debussy, is essential in Stravinsky because of the density of his invention. Once they are established, four tonal functions (or "forces" as they are called later: pp.86-87) are identified. The functions can work discretely to characterise the separate strands of counterpoint in movements such as the Double and Triple Pas-de-Quatre (pp.78-79). When more formal contrapuntal devices such as the canonic and/or serial are used, different functions can inform the composition of a single line. As the reprise of the first movement is approached, for example, a line in the bass, determined by serial organisation and comprising a transposition of the retrograde and the inversion of a series, picks out in its lower notes a diatonic progression towards C major (pp.134-135).

There is no hint of serialism in Agon's initial Pas-de-Quatre. The point for chromatic extension seems to be the augmented fourth of the quasi-Lydian opening chord: the F just below the bass clef, the F an octave higher, the B just below Middle C and the C a minor ninth higher. The chord punctuates, with staccato and pizzicato, the fanfares of the first trumpet. The only notes of the chord to sustain are the bottom F of harp and piano. The simultaneous use of B and C denies their being heard as a leading-note which leads to a tonic but preserves the different notes' distinctive tonal significance. Tonic and dominant combinations are common in Stravinsky's music from the Russian period, and have been compared with the crushed cadences of Domenico Scarlatti's Essercizi (14) and the seventeenth- and

eighteenth-century Italian opera. According to Charles Wuorinen and Jeffrey Kresky, however, in their essay "On the Significance of Stravinsky's Later Works" (1986),

the result of so simple a device as fusing a dominant chord and a tonic chord into a single chordal entity can be seen as destroying the time dependency that is essential to the ordered hierarchical relationships that inform the local and large-scale continuities of tonal pieces; these relationships then give way, such that ... the role usually assumed by the tonic note or tonic triad is transferred onto the entire scale collection of the key being uttered at the ascent.

This denial of the functional distinctions among the notes of the present scale would, among other things, affect the local successions of pitches in such a way as to elevate the importance of the absolute order of notes (as opposed to the more usual contextual time dependency that reflects and establishes their standard functional relationships). Here we may see a first suggestion in Stravinsky's work of a breakdown in terms of Babbitt's well-known distinction between content-significant ('tonal') and order-significant ('twelve-tone') systems (15).

It seems to the present author that Wuorinen and Kresky's conclusion is borne out in Agon but that their argument is questionable. It is true that in Agon what are represented as discrete systems by Babbitt are used simultaneously, but tonic/dominant combinations maintain the clear tonal significance they have always had for Stravinsky. They deny the leading-note quality of a progression but enforce the clear tonal statement of a crushed cadence.

(15) Pasler, Confronting Stravinsky, pp.262-270.
This analysis will show that Stravinsky did not discard possibilities for expression which fascinated him. The Russianness of Stravinsky's music is readily perceived in intervallic patterns as discernible in Agon as in Petrushka. The bichords of Le Sacre are still potent in Agon.

Stravinsky's music always builds relationships between line, harmony and structure. In Agon, without losing the distinctive qualities of either, he fuses the diatonic and the twelve-note. In the same way he fuses antique binary- and ternary-form dance pieces and serial technique, as well as the octatonic experiments based on Rimsky-Korsakov's and mathematical games akin to Milton Babbitt's.

The integrity of intervals in Stravinsky's music is scrupulously maintained. The minor ninth is prominent throughout Agon. It is audible from the start as a determinant of the structure. The bareness of the open fifth F/C, the modal line of the trumpets from bar 4, and the quasi-canonic use of a rhythm alternating semiquavers and triplets of semiquavers, all recall the neo-medievalism of the Cantata.

When the horns enter with a bare fifth on B at bar 5, we have the first example of the chromatic extension which derives from the augmented fourth in the opening chord. The B is present in each of the four opening bars, firstly in the three punctuating chords, and then in the trumpet quasi-canon, where it falls to the A a whole tone below, three times out of four. In the fourth, where it does rise to a C, the line continues though to the D, ensuring an harmonic effect of combined tonic and dominant. Like the simultaneous use of notes in the opening
chord, the effect of combining the B, D, C semiquaver triplets with repeated Cs is again to deny the B's potential to be heard as a discrete leading-note. When the horns cadence in bar 6, the F# introduced in bar 5 a fifth above B, behaves like a "Lydian" fourth in a resolution on C, by way of a Landini cadence. Another fifth sounds in the oboes and cor anglais in bar 7. C and G are sustained in horns and oboes against vigorous triplets of B and B thirds in cellos and basses; another example of combined tonic and dominant and a number of exposed minor ninths. Although the rhythm is borrowed from the trumpets, the music has little of the antique quality of the opening fanfare. The tone of the double basses, the disposition of the bare fifth, and the unrelenting dissonance of the minor ninth, combine in a familiar Stravinsky texture, a good illustration of what André Boucourechliev describes as his "stripped" style, "transparent and with a solid bone-structure" (16).

From bar 10, the harp, mandolin and first solo bass share a line derived from the trumpets (ex. 2.18).

Example 2.18: Agon.

So far, the new chromatic notes are entering in a chain of fifths: F# in bar 5, C# in bar 11 and G# later in the same bar. Another Landini cadence would have resolved in D, to make bars 10 to 13 a varied transposition, up a tone, of bars 4 and 5, were it not for the fifth (C/G), first heard in bar 7, which is now inverted and picked out by alternating pizzicati for bass and cello. More inexact canonie writing for trumpets and horns employs the flattened seventh (ex. 2.19) and sharpened sixth first heard in bar 4.

Example 2.19: Agon.

This quasi-Mixolydian effect enshrines a musical idea capable of much extension. The rising flattened seventh and falling sharpened sixth deny the convention of melodic minor in triadic tonality, where the rising notes are sharpened and the falling flattened. It is one of the many ways Stravinsky will vary approaches to notes with tonic properties to avoid the saccharin association of the semitonal lead. In this piece it quickly produces another familiar gesture: the contradicted chromaticism where, within a line, a sharp note is almost immediately contradicted by its natural version (bars 17 and 18, trumpet), or where the sharp is heard in harmony against its natural version (bars 11 and 12, harp, mandolin, solo bass I and cellos).
The overall structure of this movement accords with the most frequently observed of Stravinsky's formal procedures, often likened to a mosaic, and described as static or non-developmental. Several pieces seem to be proceeding and are intercut: the opening fanfare, the sustained fifth and triplet semiquavers of bars 6 to 9, and the Landini cadences.

The passage from the end of bar 19 to the end of bar 25 is, apart from changes of detail in rhythm and scoring, identical to the music from bar 7 to 12. In bar 25 the musical repetition is cut off before its resolution and there is a general quaver rest in bar 26. The music which follows is comparatively free. Indeed, while the form of the movement is comparable with Stravinsky's use of static models elsewhere, it is also comparable with seventeenth-century binary form—seventeenth-century dances provide the stimulus for the music as well as the ballet of Agon. But the repeats of the first half are "written out" with subtle alterations, and the second half's repetitions are even less exact, although the essential elements of the mosaic remain the same.

Bars 26 to 29 represent the passage furthest from the initial ideas, though the second trombone's line is made up of minor ninths and its simple version, minor seconds, and the B major arpeggio of the first trombone combines with a major third Bb to D and its inversion in the harp. (In fact all but two of the twelve chromatic notes are repeatedly present in these few bars, and they represent the point of development furthest from the initial material while being closest in
character to the first tentatively serial movement, the Coda to the Bailliarde in Part Two — see especially bars 230 to 239.) One may also compare them with the First Pas-de-Trois, Saraband Step (bars 146 to 165), where some lines are also often arpeggiated triads though others are clearly fixed by a series.

In bar 30 the clarinets herald the trumpets' fanfare on C while the trombones sustain Db and Gb. The initial chord with its F and "Lydian" fourth B natural had a relationship to the repeating Cs which is interestingly similar and significantly different. Here it is the C which is the "Lydian note". Bars 26 to 29 have had a transitional, modulatory function achieving a fresh perspective on the initial idea. They are the crux of the movement. So many of Stravinsky's works — both in detail and in a wider view — achieve a crisis point, and resolution, when it comes, offers a stillness, a sublimation or an apotheosis.

It is instructive to compare bars 32/33 and bars 17/18, two passages of what was labelled above as contradicted chromaticism. The original rising C# immediately contradicted by a C natural is complemented in the later passage not only by a rising Eb contradicted by a falling E natural, but also by a complete reversal of the melodic minor norm: Db and Eb rising followed by E natural and D natural falling.
Comparison between the two "halves" continues to reveal interesting aspects of Stravinsky's compositional concerns. The reversed melodic minor gesture introduces demisemiquavers and a modal resolution on A and D. (The initial fanfares resolved on A and G.) The horn Landini cadence on C in the first part (bars 6 and 19) is now on Eb (bar 35) and, instead of a sustained C/G fifth above the B/B semiquaver triplets, the Eb/Bb fifth in the horns is joined by the oboes and cor anglais Eb/F/Bb. The B/B semiquaver triplets always begin in the same way but each time are varied rhythmically. In bars 37 and 38 the repetitions of B become more insistent as if their sharpness were under greater attack from the Eb/F/Bb chord than they had been from the C/G open fifth. Only two bars long on their first and second occurrences, the B/B semiquaver triplets are now extended to seven bars and, from bar 39, the Eb/F/Bb added second chord, previously sustained, alternates with a similar added second chord on F, in an inversion which allows a horn B to be its lowest note. This B, with the bass note of the Eb added second chord, affords another major third alternation above the C/G semiquaver triplets. Before, the sustained added second chords or bare fifths have always been fp or sfz, but now, the forte semiquaver triplets do battle with the forte alternating added second chords. The rhythmic excitement is enhanced by accents, careful indications of attack and varying dynamics.

If bars 26 to 29 are the tonal crux, this passage is the dynamic climax. The tension, unresolved in bar 30 after the passage of maximum tension, is shown in bars 39 to 42 to relate to the initial flatward
and sharpward thrusts of the opening chord and what immediately followed it. (Not only has Stravinsky preserved the integrity of intervals—however dissonant, every note is necessary, every pitch carrying tonal force—but the traditional implications of harmony for a tonal sense of direction are sustained even when surface implications, such as the semitonal resolution of leading-notes, are set aside.)

From bars 43 to 46 the horns have another Landini cadence. In the first half the cadences were on C and B, in the second on Eb and now on F. The sharpward direction of the first half is mirrored by a move back to the tonic from the flat side of a cycle of fifths. This is the overall pattern of the movement, but Stravinsky has to summarise the tonal argument again before a final C resolution. The first trumpet begins a fanfare on C, a fragment that leaves off on a B; it is imitated by a horn an octave and a fourth below which means that it ends on an F#. The F# is sustained against the F natural an augmented octave below which had been taken on from the end of the Landini cadence. Against these sustained notes the first horn gives an inversion of the trumpet fragment, after a false start, on Db. This is a momentary reminder of the relationship between the fanfare gesture and the G/B semiquaver triplets. The roles of sustained notes and semiquaver triplets have been reversed.
It is not easy to translate what has been meant by the word "wit" in relation to music, but this neat, restrained passage with its brief reversal of earlier procedures must surely qualify. Certainly, the flurry of fanfares that bursts from it (bars 49 to 52) has the effect of appreciative laughter, but the reins have not been relaxed. These (bars 49 to 52) are the most chromatic lines of the movement. The upper lines are pushing sharpwards from the Db bequeathed by the first horn. Trumpet IV inherits an F# modality from the third horn, and when the flurry is over the trumpets come to rest on a chord which reads from the bass upwards F#/D/Bb/Eb, and which, in its balance of sharp and flat elements around the missing C centre, can be heard as a symbol for the whole movement. Taking over, the horns resume with a bare fifth of Db. The opposing forces of flat and sharp are shown to be one and the same in this enharmonic progression (cf. bars 29 and 30). After this momentary resolution at the point furthest away from the movement's tonal centre, the continuation of the Db fanfare soon resolves onto a Landini cadence on F. Then the trumpets, and eventually harp and lower strings, return to establish as full a resolution on C as Stravinsky's idiom will allow, a chord with several Cs, an F, a G and two Ds: another crushed cadence.

On the evidence of this one movement, tonality for Stravinsky is an enormously potent force which, in terms of linear movement, needs to be reined in lest it become too readily expressive, but which remains, in terms of harmony and structure, an essential spur to invention.
The minor ninth and the contradicted chromaticism of the first movement are the starting points for the second, though the tonal centre has changed. Whereas the "Lydian" chord on F and what followed established the tonal centre of the previous movement as C, the repeated Ds in the Double Pas-de-Dquatré develop the insistence of a dominant. The whole movement focusses on a B tonal centre, insistently minor to begin with but achieving a final effect of tierce de Picardie. The line of the first violin is apparently secondary, part of the ostinato pattern shared with cellos and double-basses, while the bassoon and oboe double at a two-octave distance with the lengthening fragments of contradicted chromaticism. Though all parts are marked poco f (the bass pizzicati, sempre poco sf), it is the rising and falling sequence of the first violin line that shapes bars 61 to 79.

The other lines are more fragmented, except for the cellos anchored to their ostinato patterns. As the first violins rise to G, fall back to D and rise again to A, they seem to have a gravitational pull on the cellos. At first, the cello ostinato simply varies its upper note from D to E or Eb, but as the first violins reach A, the cello's ostinato pattern reduces to a repeated D, and gives way to the violas employing the initial cello ostinato pattern to rise to where the cellos resume the repeated-note pattern on A (ex. 2.20).

Example 2.20: Agon.
The first part of this movement is much more thoroughly linear than the first movement. Its texture resembles an isorhythmic motet, the first violins and cellos providing the steadying influence of a color, with its customary repetition of melodic material, and the woodwind (oboes and bassoons, then clarinets) given all the freedom and elaboration of hockets, the device of medieval polyphony whereby a melody is divided between two or three contrapuntal parts. The violas link first violin groups, and allow the cellos to rest before they re-enter on a different note. The basses give occasional emphasis to off-beats. From bar 69 the chromatic contradictions of the woodwind give way to chords also involving brass: 1) Db/F/Db; 2) Db/Ab/Ab; 3) B/B/E; 4) Eb/B/C; this sequence repeats thus: 1, 2, 1, 2, 3, 4, and there follow new fifth and sixth chords: 5) Bb/Bb/Eb; 6) A/Db/F#, which are then repeated. It is worth noting that these chords, as well as forming a mediant progression with evident octatonic origins, contain eleven of the twelve chromatic notes, the A the last to arrive. The D is anticipated, then, as the missing twelfth note, a tonic to follow A, and as the next root note in the chord sequence: 1) Bb; 2) Db; 3) E; 4) C; 5) Eb; 6) F# - D.
The missing D is provided repeatedly in the return to the initial ostinati in bars 73 and 74. This gives a more fundamental meaning to Joseph Strauss's term, "pattern completion". Strauss says that "by a systematic use of a single normative pattern at all levels of structure, Stravinsky is able to achieve a high degree of musical coherence. By exploring the need for completion of this single unit, he is able to create directionality, cadential arrival, and ultimately, tonal centricity as well" (17).

From bar 75 to 78, the first violins have an abridged version of what they had from bar 64 to 73. One might compare the first notes of each four-note group in the parallel sections (ex. 2.21, p.81).

The significant difference is the absence of A naturals in the second passage. In the first, the repeated As pulled the cellos away from their D to an A ostinato. D is the firmly established bass note in bars 73, 74, 75, 76, 79 and 80, and, although the cello octave D ostinato stops in bar 75 only to resume in bar 80, the double basses pick out off-beat semiquaver Ds in bars 75, 76, 77 and 78. The violas behave throughout bars 76 to 78 as they did in the transitional passages in bars 67 and 72. The quaver rest at the beginning of bar 77 occurs at the point that the A natural might have been reached. The

oboe and bassoon fragment that fills the gap, like all such fragments from bars 75 to 80, centres on D.

Bars 64 to 73

Example 2.21: Agon.

What happens next is equivalent to the first movement, bars 26 to 29, a passage that reaches towards serialism. Against the lines informed by a series is an A minor triad arpeggio, played in their various octaves by double bass solo, bass trombone, trumpets II and III, and bass clarinet, in diminishing note values. It is as if the serial element is to be disguised. The first trumpet, which has the most recognisable serial line, is \textit{pp} possible and then also \textit{dolce}. When the lines are chromatic but not derived from the series, they are often similar to the earlier fragments of chromatic contradiction, the only difference being that certain notes have been displaced by an octave.
Compare, for example, the bassoon part in bars 85 and 86 with the end of the trumpet fragment in bar 78 (ex. 2.22).

Example 2.22: Agon.

The whole passage from bar 81 to 90 represents as complete a fusion between the established procedures of neo-classicism and serialism as one can find in Stravinsky's work. The melodic writing drawn from series never loses its tonal implications, intervals retain their integrity, their traditional significance. Equally, the elements of the texture written without reference to series achieve a highly chromatic tonal language that, through a continuous and thoroughgoing negation of leading-note significance in semitonal movement, is able at once to merge with serial elements and to preserve the architectural value of tonality.

It was claimed above that the whole movement is focussed on a G tonal centre. When the D/Eb ostinato ceases in bar 80, the introduction of serial elements in bar 81 is accompanied by supertonic arpeggios. A prominent D crotchet (tutti cellos, cant. poco f) is approached by what has been described as a dislocated fragment of contradicted chromaticism: C, B, C#, D# in bars 84 and 85. The strongly G minor/major character of the flute line, bars 86 and 87, is heard as a tonal continuation from the cello D, as is the brief but telling G resolution at the beginning of bar 89. All the \[\frac{3}{2}\] fragments in clarinet and strings from bar 86 to 90 suggest G; that there are a number of F
naturals as well as F#s, and Abs as well as A naturals, is only what one has come to recognise as a characteristic of Stravinsky's tonal language.

One can see a movement away from the serial influence from bar 89. A truncated and G-influenced note row is passed from bass clarinet to bass trombone:

```
Eb  Bb  B  G  F#
Gb  F  Db  D  A
```
as the lines and ostinati of the earlier part of the movement reassert themselves. The trumpet resumes the arpeggios of bars 81 to 83, but this time on the supertonic. The bars that follow seem to debate whether to replace the supertonic arpeggios E and B naturals, with flats. The \( \frac{3}{4} \) rhythm taken from the trumpet by the strings provides a strong sequence to establish G major rather than minor: A - F, F - D, D - Bb, Eb - G, C - A, F# - D, B - G. The movement ends with what is, within Stravinsky's language, a full G resolution: the whole triad of G major is present plus the added fourth, a note that once would have required resolution, and which now seems so "natural" in its bright, clear, clean, lightly-scored dissonance.

If one were to attempt a reduction of this movement, the skeleton would look as simple as ex. 2.23.

Example 2.23: Agon.
The Triple Pas-de-Quatre which follows, in bars 96 to 121, is sub-titled Coda. Stravinsky has described it as an "imitation" of the Double Pas-de-Deux (18). It compares in length with the preceding movement and uses several of the same or similar gestures: chains of fourths or fifths making up partial note series (trumpets and flutes in bars 97 to 100; D A, C F, Eb D, Eb B), fragments of contradicted chromaticism (every bar), ostinati (bars 96 to 98, 104, 107 to 110) and sequences of major and minor seconds quickly traversing the entire chromatic spectrum (ex. 2.24).

The power of lines is even more pronounced in the Coda than before. It begins with the instruments divided between those with D harmony, Ds, or Ds and As: flutes, bassoon, trumpet, second violins, violas and double-basses; those with contradiction of the D, Ebs and Dbs; Bb clarinet and horns; and those with the customary fragments of chromatic contradiction, combining the previous elements: first violins and cellos, doubling at the octave. For two bars this may seem static and harmonic, but the previous movement's Ds and Ebs at the same point had an older tonal significance. Here the different lines have, as it were, their own tonal direction. The contrapuntal clarity of rhythm and

texture is endorsed by a distinct tonal progression in each line. Every note in the final resolution is arrived at as the result of logical sequence. It preserves the movement's polytonality in a stack of fifths: F, C, G, D, A, and snippets of the earlier fragments of chromatic contradiction in first violins and violas, E – D and Ab – Bb respectively.

To follow the tonal argument of the movement is to follow the sequential logic of separate lines. To consider the lines of second violins and horns from bar 113 to 118, is to see that the A natural achieved by second violins in bar 118 is the inevitable outcome of that line. The last three bars in the line’s sequential progression yield a pattern of interlocked minor thirds: Eb F Bb, E F B, Gb Ab A. This A, which survives into the final resolution, is also the twelfth note, completing the chromatic spectrum within its own line. On the other hand, the work has many instances of one instrument carrying a near complete series, the "missing" notes provided, in parenthesis as it were, by another (e.g. bars 81 to 86, trumpets and strings). It is often the need to fill out the chromatic spectrum which determines how a line progresses.

The phenomenon of music's tendency through the eighteenth and nineteenth century to explore more and more of the chromatic spectrum (19) is, in Stravinsky's music, recognisable as a tonal force; if the deeply rooted, simple tonal patterns such as those revealed above, in

bars 61 to 95, represent in musical terms, gravitational force, then one could see linear progression as the electromagnetic force, serialism as the weak nuclear force, and the need to complete the chromatic spectrum as the strong nuclear force (20). To label the different functions of tonality in Agon in this way is not to suggest actual relationships between specific natural phenomena and music, but it is to suggest that it is possible for one work to employ tonality in different ways, that tonality is not wholly a cultural phenomenon but that culture determines how the physics of sound is perceived, and that a culture as complex as Stravinsky's can perceive, and use simultaneously, a variety of forces within the same phenomenon.

What it would be valuable to establish is that Stravinsky's tonality in Agon takes four forms: the centripetal structural implications of triadic harmony, often involving a focus on tonic and dominant relationships; the integrity of intervals and the logic of linear progression, often involving contradicted chromaticism; the tendency to form proto-serial patterns, their inversions and retrogressions, involving more than one line and determining harmony; and finally, what in this period of Stravinsky's work seems to represent an opposite and equal force to the first form, the centrifugal urge towards completion of the chromatic spectrum: i.e. a desire to "use up" all twelve chromatic notes. All four forms are at work in the piece. Though from time to time one or the other may prevail, they can also work in various degrees of balance.

The first two bars of the Coda hear D prevailing; as in the previous movement, it does have the gravitational pull of a dominant, though different tonal roles are established for the different voices in the deployment of bitonality and chromatic contradiction (ex. 2.25).

Example 2.25: Agon.

As the movement proceeds, the double basses, bassoons, second violins and violas continue to fulfill implications of triadic harmony with repeated Ds and As, as in bars 98 and 100, and a chordal progression: D minor seventh, D major seventh, Gb major seventh, as in bars 98 and 99.

The trumpet solo, piccolo and flutes begin an embryonic series built in fourths, C up to F, Db up to Gb, Eb down to Bb, and it is continued by clarinets, trumpet, bassoon and horn when, in bar 101, the second violins and violas change roles to double the horn line. The line which adheres most closely to its initial role is the first violins'. The contradicted chromaticism of the first two bars, doubled by the cellos, quickly establishes a pattern of interlocking minor thirds (ex. 2.26).

Example 2.26: Agon.

The rhythmic groupings of demisemiquavers obscures the sequence, as does the fragmentation and redirection of the line, but whenever a definite upward or downward movement is established, the minor thirds
are evident (ex. 2.27).

Example 2.27: Agon.

To compare all lines at this point (bars 115 to 121) provides a microcosm of Stravinsky’s method. The horn has the interlocked tones and minor thirds, at first in quavers and then irregularly (disintegratingly one might almost say, as the part dissolves, not to return, though its final note is C, also a note of the final chord) in semiquavers. The first violin has its sequential demisemiquaver fragments of contradicted chromaticism, the second violin’s line augments the same sort of sequence mostly to quavers and the violas augment the same sort of sequence mostly to crotchets. From bar 116 the flutes, then the clarinets adopt the sevenths and seconds (and their compound form, ninths) first referred to above as a feature of the
cellos' line. The sequences in each part are clear and inevitable, although Stravinsky occasionally employs what, to borrow a term from language, might appropriately be called ellipsis:

bars 116 to 118: flutes  C B♭, A G
bars 120 and 121: clarinet I  G Ab, G♭ F, G Ab, G♭ G
bars 119 to 120: clarinet II  Cb B♭, C Db, Cb C
bars 120 and 121: bass clarinet  F Eb, F♭ B♭, G F

All these sequences are complete but for the first clarinet, where a G might have preceded a final A were the G not already present in the final chord, in the second flute.

Rather than trace every line through the Coda, bars 115 to 121 can stand as an illustration of a method employed throughout. Before leaving the movement, there is one more observation of the influence of traditional triadic tonality to be made. D dominates the harmony to bar 103, G from bar 104. The G at the beginning of bar 104 is followed by a characteristic series of chromatic contradictions: A, Ab, B♭, F, Eb, F♭, Gb, F, G, Ab, Gb, F, G, G♯, F♯ and again, G. Significant bass Gs come again in bar 110 (bassoon and double bass), bar 113 (double bass), and bar 114 where, as has been stated previously, cellos and basses finally resolve on G before the horns resolve on C thus forming a series of fifths with the movement's final bass note, F (bass clarinet in bar 121). A reduction of this movement yields D G C F as the overall tonal drift.
In discussing the Prelude which follows, it would be useful also to consider the two Interludes which are its variants. The chief concerns of this commentary are tonality and line, and the elements which vary most from Prelude to Interlude, and Interlude to Interlude are rhythm and texture. Indeed, the tonality remains constant. The Interludes are, in effect, tonal variations. When only partially represented, triadic tonal significance is necessarily ambiguous, but the Prelude establishes a pattern of bichordal harmony which may be represented thus:

- bars 122 to 127 - Bb minor and C
- bars 128 to 130 - Gb and C
- bar 131 - Eb and G
- bars 132 to 139 - Bb minor and G
- bars 140 to 145 - towards resolution in C with G.

Compare this pattern with the first Interlude:

- bars 254 to 259 - Bb minor and C
- bars 260 to 262 - Gb and C
- bar 263 - Eb, C and G
- bars 264 to 271 - Bb minor and G
- bars 272 to 277 - towards resolution in C with G.

And with the second Interlude:

- bars 387 to 392 - Bb minor, Eb minor and C
- bars 393 to 395 - Gb and C
- bar 396 - Eb, C and G
- bars 397 to 404 - Bb minor and G
- bars 405 to 410 - towards resolution in C with G.

In other words, the tonal pattern established in the Prelude is adhered to closely in the Interludes.
In the second Interlude, in addition to the augmentation in violas, cellos and basses, the second and third trumpets enter from the beginning with B♭ harmony. For one bar, 390, their notes are Eb and B♭ against the usual continuation of B♭ harmony in bassoon and timpani, and C harmony elsewhere. It is too brief to represent a significant change in the harmonic pattern, but it inspires conjecture about the meaning of the different keys of the piece in relation to the final tonic, C. The notes of the non-C-or-G major lines are limited to triads from the following sequence of thirds: Eb, B♭, B♭, D♭, F. The triad of B♭ minor is frequently represented by only root and mediant, the triads of G♭ major and Eb minor always so. Are all these non-C-or-G major harmonies interchangeable in their functions? Is the sustained bitonality of these movements the continuous opposition of Eb B♭ B♭ D♭ F and C E G B D tonal groups? After all, the final chord in each is the same tonic/dominant: C, B♭, G, G, C, which has been identified above as C with G; C with G rather than C and G because C is clearly the stronger tonal centre. However, the linear approach to G (it is allowed, in the context of this piece, a rare leading-note whereas the more definitely secured tonic C is, of course, not) merits its recognition as an independent tonal centre rather than merely the fifth of C. Again, the stronger tonal centre is allowed no third, whereas G is. Both leading-note and third, the degree of a dominant triad to provide a leading-note, are allowed to the weaker centre.
It is impossible finally to ascertain how Stravinsky heard the
tonal function of any given harmony. Such chords as the last of the
Prelude and Interludes has been described as a crushed, abridged or
simultaneous cadence (21). But, if it is an essential characteristic of
the cadence, that it is the product of movement, either between
juxtaposed notes or between groups of notes, then movement to C in the
cadence under discussion is from D, in the second flute, the second
bassoon, the harp and the second solo cello.

Example 2.28: Agon.

Between the recurrences, the piece moves further away from their
architrave of C. (The first departure of only 60 bars has cadences on B
and C. The second and third departures of 108 bars each, move to
similar degrees sharpwards and flatwards. The final chords of 7 and 11

are unresolved discords with a strong dominant function. The final chord of the seventh movement contains all notes of a dominant eleventh with major and minor ninths, and its bass note leans towards C like a Neapolitan flattened second. Less complex, the dominant ninth of the end of the 11th movement has a clear tonal bias.

The function of the single enharmonic change in the first movement is worked out in the progression of the last three movements: F#, G♭, C (ex. 2.28, p. 92). The C with G final chords of the Prelude and Interludes represent the inner columns of architectural support. Their slight pressure towards the dominant reserves for the outer movements the fuller C resolutions, where D and F are added notes which counterbalance each other and thus reaffirm the C tonal centre. In ex. 2.28, bar numbers are given above, and the proportion of inner and outer columns to the piece as a whole in numbers of bars, are given below.

The First Pas-de-Trois, Saraband-Step, is a neat binary-form piece which has the sequential material of the first part appropriately mirrored in the second. The traditional tonal procedures are observed: Part A, B♭ - F; Part B, F - B♭. Part B is extended by a two-bar coda, not so labelled by Stravinsky, which takes a lunge towards the subdominant (a Baroque convention shocked alive by some highly charged dissonance), before coming to rest on the first inversion of a complete B♭ major seventh chord. The D minor ambiguity which this effects (it could equally accurately be described as a D minor added sixth chord), makes a smooth transition to a movement, the following Gailliarde, which makes a stately progression from C to A.
Sequence and bitonal opposition inform the detail of the Saraband-Step. The vigorous, treble-stopping violin solo establishes Bb quickly, before B major, C minor and E minor are juxtaposed or superimposed. Notes from a G major triad, B and D, are introduced by the bass trombone, under the Bb seventh of tenor trombone and violin solo, before a full G major/minor triad is shared by trombones, trilling violin and tremolo xylophone (end of bar 1). C minor, again pioneered by two notes, Eb and C, on the bass trombone, is also given its G by the first violin, added to its previous Bb seventh. The movement from G to C brings its usual tonal implications to oppose the repeated Bb. The movement from C minor to E minor is the kind of mediant progression long favoured by Stravinsky because of its modal character.

The lines again have their own logic. The G to C minor progression is heard most clearly in the triadic patterns of the bass trombone (ex. 2.29).

Example 2.29: Agon.

The tenor trombone repeats a crotchet Bb, the xylophone has a G seventh to C resolution in its tremolo reinforcement of the first violin sequence (ex. 2.30, p.95), and the first violin, as given in ex. 2.30, after its opening flourish, proceeds by way of a free sequence from Bb to F. The repeated minor ninths offer another pedal to add to that of
the tenor trombone. The fourth of the upper two notes of the first inversion of the E minor triad (bar 147) leads like a double-leading-note to the Stravinskian chord of fourths — F/Bb/C/F — which begins the triplet progression towards the F added second chords of bar 148, elaborated by the contrary motion ornament (see end of ex. 2.30).

Example 2.30: Agon.

Whereas the lines have their own logic, they do respond to each other's. The rising third in bar 146 of the bass trombone is answered by the rising third in the xylophone. Similarly the falling third of the bass trombone in bar 147 is answered (albeit changed from minor to major) by a falling third in the xylophone. The upper line of the contrary motion ornament with which the first violin begins bar 148, is inverted by the tenor and bass trombones in thirds. The sharpward push which achieves a full resolution in F at the beginning of bar 148, in the violin sequence which follows, seems to push further.
Part B's close mirroring of Part A gives a valuable example of what Stravinsky considers to be equivalent procedure. To some extent, fourths become fifths, thirds become sixths, as is usual in inversion; and the lines of the outer parts of the violin treble-stopping are exchanged (as are the trombone parts for the first bar: they then resume their original parts appropriately transposed). Accepting the alterations produced by exchanged roles, the transposition is as to be expected except for the xylophone part, which now falls and rises through fifths. It no longer imitates the bass trombone line, but still mediates between violin and trombone parts, taking notes from each. The triplet figure at the end of bar 155 has the tenor trombone line transposed and reversed, and the bass transposed (at this point it is non-reversible), whereas the violin part is not reversed and transposed in the same way. Initially all parts are transposed up a fifth, but instead of an F and Bb (transposition) or a D and A (reversal), the violin part has the original Eb and Bb (though, of course, a fourth rather than a fifth) and a D/Eb minor ninth rather than the E/F minor which continued transposition would have yielded.

Insofar as one can distinguish between them, this suggests that the tonal function of individual chords is not as important as the demands of the long-term and structural functions of tonality; the beginning of the second beat of bar 148 brings a definite F major added second which reinforces the harmony of the beginning of the bar, and in bar 156, another exchange of roles has the solo violin with what the trombones had had before, and the trombones share the violin's ornament. But nothing is quite what it seems, and the bass trombone moves to F rather than establishing the B produced by transposition.
It is, of course, the function of Part B to re-establish the tonic, and this requires flatward modulation. Stravinsky's means of providing it are ingenious. The further exchange of roles allows the tenor trombone an inversion of the upper part of the Part A violin ornament. That it moves from E to G rather than from G to C would imply unnecessary further sharpward movement were it not for the free rewrite that brings the bass trombone to F. The first violin can then add in sixths its inversion of Part A's trombone thirds. The last chord of bar 156, a combination of A and "Phrygian" E, compares interestingly with bar 148's C and "Phrygian" B. In one bar it would seem Stravinsky has smoothly readjusted the effects of dominant transposition. Compare the relationship between the two chords and the tonal starting point of each part:

C (up a tone)  Phrygian E (down a semitone)
Bb         F
"Phrygian" B (up a semitone)  A. (down a minor sixth, or, in this context, it would be equally acceptable to say: up a major third.)

Major readjustments have been made while the prominent first trombone part and the violin part have clearly audible and accurate, though transposed, inversions of Part A material. At this point, roles are exchanged again except for the xylophone, whose line is an inversion (B, A, Ab) of its Part A line (C, D, E); the semitone adjustment is in response to the modulation in the other parts. When, at bar 157, the violin reassumes its own line, instead of inverting the
intervals of Part A, it begins with the familiar major seventh. It is
on C instead of on G as in Part A, and connotes the completion of an
appropriate adjustment to achieve a resolution in the tonic at the end
of Part B, but one would not expect the repetition of material to
proceed simply, and indeed it does not; Stravinsky plays all the games
of reversal, inversion and exchange that his economical forces will
allow. Nevertheless, the prominence of the C seventh at the beginning
of bar 157 is another illustration of the strength of Stravinsky’s
concern for the broader tonal perspective. The moment is given extra
prominence by the xylophone’s and trombones’ reinforcement of the
violin C and B with a harmony using only those same notes. There can be
no doubt about the tonal substance accorded this juncture when it is
compared with what happens at the equivalent point in Part A, where
the violin seventh is harmonised with notes which oppose its tonal
implication.

In bar 159 there is an enharmonic change equivalent to the one in
bar 52. As this enharmonic change is significant within individual
movements and within the whole scheme of the work, it may be reasonable
to assume that its achievement at this point requires various of the
detailed adjustments. Further adjustment of transposition and inversion
gives a B – B – A minor, cadential quality to bar 159, while a stronger
minor ninth dissonance between bass and violin top line on the second
quaver of bar 160, a last-minute reversal of the trombone roles, brings
the inverted Landini cadence back to the bass in time to provide a full
resolution on a Bb seventh in bar 161. The coda (its tonality was
discussed above) gives the tenor trombone an opportunity to
recapitulate the opening upper notes of the violin solo, and gives the violin solo the opportunity to repeat its original minor ninth. It has a leading-note to Bb as the dominant of Eb which is immediately contradicted by an Ab when the F fifth in the violin part suggests the dominant of Bb -- and an Ab falling to B before rising, Landini-like, to the tonic. All this summarises the tonal argument of the whole movement.

The Gailliarde, with its bold and simple harmonic outline, scored with the utmost subtlety, exemplifies the mixture of triadic tonality and modality which is rarely absent from Stravinsky's music, though rarely as exposed as here. Against the contrary motion triads of C major for first and second flutes and strings (viola, three cellos and two double-bass solos), the harp, mandolin and third flute spin lines with "Lydian" F# harps and "Mixolydian" Bbs and their chromatic contradictions, C major diatonic F and B naturals, often wilfully reversing the traditions of musica ficta. The main impetus for these lines is a succession of canons between mandolin and the upper line of the harp. In the first section (bars 164 to 170), the lower harp line and third flute offer reinforcement at the same pitch or displaced by octaves, occasionally spinning off on their own to make extra harmony notes or extra imitative points, especially towards the ends of phrases where the canons tend to dissolve into scale passages of thirds or sixths. The piano enters towards the end of the first canon line (bars 164 to 167) with an imitation of the mandolin part (from the last three crotchets of bar 165) down a minor sixth. The piano's involvement in the repeated middle section (bars 171 to 178), is thoroughgoing,
even so it seems to "remember" its contribution to the first section
and aims to fit the same passage under a different harmonic ending. In
the final section, the piano's first section fragment is transposed and
speeded up; *sempre poco sf*, it makes, as before, an authoritative
statement against the whisper of flutes, mandolin and harp, and its
final F#, backed up by B♭s, A♭s, C♭s, E♭s and G♭s liberally deployed
throughout bars 182 and 183, plays the now familiar role of the F#/Gb
enharmonic change observed in the previous movement and elsewhere.

It would be possible and perhaps informative to give an harmonic
scheme for the whole movement (ex. 2.31). If a single triadic harmony
is preeminent, it is given alone; bitonalities are stacked as they are
in the piece; contradicting linear accidentals are given below.
Inversions are indicated only if the bass note has tonal implications
different from the given harmony. Bracketed letters indicate notes that
have linear rather than harmonic significance. All seventh chords have
major thirds and minor sevenths unless otherwise stated, for example
Em7 (minor third and seventh) or C7 natural (a major seventh as well as
major third).

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Example 2.31: Agon.
One might expect that the final section would parallel the first, in its mix of added F#s and Bbs, or even, were the piece to resolve in C, increase the number of Bbs to offer compensation and balance. The number of Bbs is, in fact, reduced: the first (bar 179) functions in exactly the same way as those of the first section, and is contradicted simultaneously by a B natural in the harp harmony, and contiguously in its own line a few quavers later. Immediately following it, a cheeky D# in the first flute (bar 180), an ornamental chromaticism from another (later!) age, winks at the gracious Renaissance solemnity of the dance and, at the same time, foresees the release of twentieth-century chromaticism in bars 182 and 183. The next Bb (end of bar 181) adds to the character of D minor here superimposed upon C but does not hint at the significance of its appearance in bar 182, where the harp plays its crucial and transforming whole-tone scale. From this point, the swift achievement of F# allows the final A to come as a flatward relaxation, and the last Bb (together with the lingering effect of the piano line, abandoned a quaver earlier on a low F#), functions as the contradicting mediant of F# against the mediant and modal resolution from C via a B natural passing-note to the final A.

Again Stravinsky achieves, towards the end of a movement, a tonal summary. The C - A cadence is the germ and the outcome of the entire movement. To understand the tonal genesis of the structure of the whole movement it is undoubtedly important to realise that the structurally prominent triads of C, A and F# or Bb, and the "Lydian" F#s and "Mixolydian" Bbs present in the linear writing, are all provided by one octatonic scale:

\[ C\ C\#\ (or\ Db)\ D\#\ E\ F\#\ (or\ Gb)\ A\ Bb\ (or\ A\#).\]
The Coda which follows reasserts C with a sustained octave and fifth in mandolin and trumpets; against it, leaps in the harp and solo cello, mostly sevenths and ninths, present the series but with telling repetitions. The emphasis is on the integrity of intervals; the repeated sevenths and ninths are heard as motifs which make patterns of self-contradicting chromaticism, common through the composer's earlier works. In terms of the series -- A Bb C Db Eb F G# Bb D G# -- first given without repetition by the piano and trombone from bar 191, these opening leaps come in the following order:

A(0.1) B(0.2) Bb(0.3) C(0.4) Db(0.5) Bb(0.6) C(0.7) Db(0.8) E(0.9) C(0.10) D(0.11) Ab(0.12)

The opening sustained C/G fifth, the resolutions of F (bars 208 to 211) and on Bb (bars 229 to 233), and the final chord which has a Neapolitan flattened second leading downwards to C -- the key of the Interlude which follows -- are the formidable evidence of traditional tonal function. The order of notes of the row and its inversion provide all the notes of the piece apart from the cadence points just mentioned and the revolving sixths in the violin solo. The inversion (identified as the original series by at least one authority (22)) -- A B Ab Bb F Eb D C C# B E Bb -- is more prominent, used frequently as an exposed melodic line.

(22) Walter White, Stravinsky The Composer and his Works, p.494.
The series is clearly born of Stravinsky's own brand of octatonic chromaticism, full of chromatic contradiction. Indeed, apart from the one perfect fifth and one diminished fifth/augmented fourth, the whole line can be seen as the product of such movement. The final fifth and tritone relate to the long-term function of the tritone within the tonal scheme of the whole work. Although only Stravinsky could affirm which version of the row is the original, it would seem to suit his neatly ordered thinking to begin a row A B Bb C Db Eb E F# F G rather than A G Ab Bb F Eb D C C# B, and there can be no doubt that the former is the series which first appears in the piece and, in that sense, can confidently be claimed to be the original series. Interest in the intervals themselves, of course, may predate composition of series.

The second statement of the series begins in the piano part (double staccato, sempre una corda, f. bar 191), and is shared with the tenor and bass trombones (staccato, poco sf). It proceeds with quavers placed at the beginning of the dotted crotchet beats, though some beats are missed: A B Bb C - Db Eb E F# - F - B D G#. The line is recognisable, memorable and comparable with similar lines in earlier movements (compare bars 117 to 120, clarinets). Moreover, the missing beats are telling. They permit the tonal implications of the line to be clearly heard. The A, B, Bb, approach to C, and its like, have been used liberally elsewhere (compare bar 116, violin 1). In spite, or rather because of the chromatic contradiction of the B as a leading-note by a Bb -- it has become such a regular feature of Stravinskian tonal function -- C is heard as a tonic. Moreover, the C has bass
trombone and piano together (there is only one other such doubling in this line: where the music repeats in bar 213), and is followed by a telling rest. In the rest the violin solo enters and quickly resolves with double leading-notes to an E/C sixth. The Db and Eb of the series provide a familiar C octatonic-derived bitonality against the whole bar of C major of the first violin (bar 194, compare bar 173), and the next note to be exposed is an E natural. The following F# sets off another phrase of violin sixths beginning this time on B/A to complete an F# triad. The effect of the rests either side of the F natural is to allow it full force in pushing flatwards away from the sharpward thrust of the violin solo. It brings out the E/C sixths and makes the F/D sixth at the beginning of bar 197 sound like the upper notes of a dominant seventh. The next notes in the series, played in a break between violin phrases, are B and D. The B confirms the dominant function of the previous violin notes, and the D has a supertonic relationship to the dominant seventh, produced by a combination of an inversion of the series beginning in the flutes, and E/C and F/D sixths in the solo violin: II 7/2 - V 7/3. The G# under the B seventh is another characteristic B octatone bitonality. Bar 199 has the first note of the second statement of the original series in the piano bass (A) and the fifth note of the inversion (F) in the flutes, together with E/C sixth in the violin solo; the movement's C - F - Bb modulatory direction is already begun. Having reached the ninth note of the inversion of the series in the bouncy flute allegro (bars 198 to 200), the mandolin repeats the last three notes -- B, E, Bb -- over the third, fourth, fifth and sixth notes of the original series in the piano and
trombones: B♭, C (below the bass clef), Db, Eb; together with the violin's revolving sixths, this sets off an extended passage of C as the dominant.

The manner in which repetitions are employed ensures a convincing preparation for a cadence in F (bar 208). The flutes repeat the last four notes of the inversion and keep on repeating the final B♭, which in itself provides a convincing dominant seventh to complete the prominent E/C and G/E sixths of the violin, before setting off on another complete statement of the series' inversion. Further reinforcement of an F tonal centre results from repetition of notes in the original series, the piano F and tenor trombone G (notes 0.9 and 0.10). It is also significant that both the dominant C and tonic F are given the lowest pitches, and that the F/G repetition is placed carefully to capitalise on the dominant seventh effect of the repeated flutes’ B♭ and to invest the whole inversion of the series with the character of higher dominant discord.

The most complete and unaltered melodic representation of the series' inversion now comes in the mandolin. As before, the way the series is employed emphasises its tonal implications. Comment has already been made about the careful positioning of Cs and Fs in the original series. It is no accident that the first emphasised note in the inversion introduced by flutes in bar 198 is an F, or that the last note in bar 199, a C, combines with an E/C sixth in the violin, or that the following C♯ combines with a B♭ immediately followed by the mandolin/piano dominant seventh already discussed. In the mandolin's inversion of the series from bar 205, the loops of the sequence present
F and C as points of resolution, and the notes 1.9 (C#), 1.10 (B) and
1.11 (E) join, in effect, with the sustained second note in the third
statement of the original series, played on the tenor trombone (B). As
has happened so often before, the fifth of a tonic is given a strong
leading-note (compare bars 170, 144, 44, and so on), and the B natural
functions as such, although the mandolin has to complete the series' inversion with a tonally corrective Bb before reaching the sustained C
(bars 208 to 211). As at the beginning of the movement, the bare fifth is held by mandolin and trumpets, but the texture is reordered. The mandolin C is above a low F octave, and, instead of harp and cello solo providing the counterpoint of serial fragments, they are given to piano and flutes. As before, there is nothing random about these fragments:

\[
\begin{array}{cccc}
Eb & Db & C & B \\
Ab & D & F & Gb \\
& D & G & Bb & E & Bb & A
\end{array}
\]

They are a complete retrograde version of the original series.
The piano having reached A, the original series begins for the third time and there is an exact repeat of the music of bars 192 to 195 (compare bars 212 to 215). A slight variation in repetition then occurs. Not satisfied with pointing the F natural with surrounding rests, in the repeat the series halts its progress at the F natural (0.9) and G (0.10). The B repeats (after a beat rest), the F repeats and the B repeats again. The F is always the bass note. The B combines with the ornamented E/C sixths in the violin to make, above the bass Fs, one of Stravinsky's favoured dominant/tonic superimpositions. Repetition then continues exactly (compare bars 198 to 207 with bars 219 to 228). How foreign such a sectional repeat is to the world of Stravinsky's acknowledged hero, Webern! How typical of its author is the choice of French seventeenth-century dance forms as a model for a piece in which he was to use his first complete series!

If the tonal pattern of bars 185 to 211 were not as crystal clear as it appears to be to this author, then the repetitions within the equivalent passage, bars 211 to 233, surely guarantee clarity. When the F resolution was achieved in bar 208, it was by way of a B natural leading to the dominant. At bar 229 the same B natural functions as a flattened supertonic, and the Es of mandolin and violin solo as leading-notes to a new dominant F over a sustained Bb in the bass trombone. This time the notes of a full triad, rather than a bare fifth, are provided by a combination of muted bass trombone (Bb), double-bass harmonics (F), violin solo (D), and muted trumpet (F, Bb and D); the mandolin's C becomes an added second, and its C triad an attractive bitonality. The retrograde version of the series comes again as it did from bar 208, but it is completely rescored to fit the new
harmonic context: the C and Bb acknowledging bitonality but the high Eb contradicting the mandolin's E natural and asserting the more fundamental Bb resolution, and the A of bar 233 completing a tonic/dominant superimposition.

As before, it is towards the end of the movement that the total chromatic spectrum is explored to its full extent. This may seem to be a difficult task in a movement which has already employed a full series, its inversion and retrograde. The reservation of the inversion of the retrograde to this point, can hardly be seen as a fuller exploration of the chromatic spectrum, though perhaps its simultaneous use with the inversion and original series can. It is not by such devices alone that the effect is achieved. Earlier in the movement, tonal direction was given clarity by a fastidious placing of the notes of the series with specific tonal import. Which are the notes to be isolated now? The bass instruments which played so significant a role in establishing tonalities elsewhere -- piano, harp, trombones -- are silent from bar 234 to 243. It is an F# which is repeated sf, framed with rests, high in the first flute in bar 238. When the harp, piano and trombone re-enter, bar 244, they emphasise a C# and, two bars later, the bass trombone has a Gb, isolated like the flute F#. By such means the far side of the chromatic spectrum, the F#/Gb enharmony noted elsewhere, is shown to have a tonal and structural function even in one of the more thoroughly serial movements. The last two chords to sound, each have six different notes (bar 253) -- Cb/Eb/D/F#/C/F followed by Db/G/A/Ab/C/F. It is perhaps important to note, without making any particular claims for it, that the only notes to be used in both chords are C and F. The final chord cannot be heard as a resolution, but like
all Stravinsky's harmony, it does have a tonal function. When followed by the Bb minor to C major progression of the Interlude it becomes clear.

The Bb minor to C progression of the Interlude works out the resolution on C anticipated in the final chord of the previous Coda, a long-term example of pattern completion. The sharpward direction is continued in the trumpet canon which begins the Bransle Simple. Thus the Interludes fulfill a tonal role in their immediate context as well as within the framework of the whole.

Roman Vlad (23) noted the gradual introduction of the twelve different notes in the first movement of Agon. In the Bransle Simple they are used in the opening trumpet canon (24) and again in the cadential passage for clarinets, harp and double-basses, and, although they come again in the three bars following the cadence, they do not

(24) Stravinsky, whose historical sense was acute, no doubt understood that the compatibility of the canon with the series made it a natural agent both for the dissolution of old boundaries and for a technical reconciliation with powerful historical implications. A composer always in search of rules whereby he might play the game, Stravinsky in the 1950's found in canon a wedge to the future as well as a bridge to the past.
Glenn Watkins, "The Canon and Stravinsky's Late Style", in Confronting Stravinsky. (cont.)
follow the same order, nor any inversion, retrograde or transposed version of an original twelve-note series.

The opening canon, although it quickly traverses the whole chromatic spectrum, has distinctly diatonic scale passages, leaps of perfect fourths and characteristic Stravinskian chromatic contradiction (ex. 2.32).

Example 2.32: Agon.

(24 cont.)The rules and restrictions of serial writing differ little from the rigidity of the great contrapuntal schools of old... the serial technique I use impels me to greater discipline than ever before.

Stravinsky and Craft, Conversations, p.22.
Van den Toorn perceives Webern's influence (25). Stravinsky is "couching his cautious approach" to the "figure twelve" in "a canonic framework highly reminiscent of Renaissance polyphony" (26). He has discovered "a means of imposing pitch/interval order-determinacy on a familiar articulative routine (but without necessarily severing all ties with its referential past)" (27). The selection of notes in this canon is not then as free as has been suggested. The notes of the second complete bar of the first trumpet part are an inversion, transposed up a major sixth, of the part's opening but without its note repetition. The movement is full of such inversions, transpositions and retrograde versions of what van den Toorn refers to as its prime set: D E F G F#. Using van den Toorn's terminology (P = prime set) the opening canon may be rendered thus:

Tr. 1. P I-9 P P P-7 R-6
Tr. 2. P I-9 P P P-7 R-6
Tr. 3. RI-8

The canon is linked to the cadential passage by sustained Ds, Es, Db s and Fs; A and B natural also figure briefly but the tonality suggested is certainly Bb. The A# entry for the third trumpet preserves this tonality, and, ending on F, G and G#, the trumpets linger in the mind.

(26) Ibid.
(27) Ibid.
like an unresolved dominant discord. The cadence that follows (ex. 2.33) offers a bichordal resolutions D over Eb followed by A and C# over Bb resolving onto a full D triad over Bb.

\[
\begin{array}{c}
\text{Example 2.33: Agon.}
\end{array}
\]

The effect is of an imperfect cadence: a logical bass for a D triad after the A had had a Bb, would have been an Eb, but a full close would have interrupted the progression of the movement more than would be appropriate at this stage. The notes that follow briefly suggest the retrograde inversion of the previous movement's series — 1.10(B) 1.9(C#) 1.8(C) 1.7(D) — before a prominent E interrupts the series on cello and is sustained on the trumpet. Perhaps the sequence B C# C D, from the last note of bar 287, should be heard as a transposition up a tone of bar 185's A B Bb C, the familiar pattern of what has been called chromatic contradiction forming another set, a set the use of which is not limited to one movement. The sets identified by van den Toorn for each movement have much in common with each other and point to a common source in Stravinsky's earlier tonal concerns.
The Coda (bar 185), the Bransle simple (bar 278) and the Bransle double (bar 336) all employ lines of chromatic contradiction. The Bransle gay (bar 310) and the Pas de deux (bars 441 and 452) give prominence to minor thirds. The sets of the Coda, the Bransle simple, the Bransle gay and the Bransle double all employ perfect fourths. The minor third and perfect fourth are prominent features of the octatonic collection illustrated in Chapter One (p.26). Chromatic contradiction is suggested by movement from one transposition of the collection to another. Van den Toorn himself notes that the series of the Bransle double is a composite of hexachordal sets from the Bransle simple and Bransle gay (28).

The C natural of bar 288 is placed pizzicato on the cello open string and the next prominent harmony is a G/D combination in the last crotchet of bar 289. The trumpet then has a line that loosely inverts the cadence pattern. While the violins pluck an F/C combination the trumpet alternates Cs and Bbs, once resolving onto the third of the F triad. For a bar the cellos sustain a B against a harp open fifth on Ab before a slightly extended version of the earlier cadence pattern is heralded by a similar passage for the trombones in bars 284 to 287. The cadence is the same and made to feel even more "imperfect", even though its final chord is repeated, because of the preceding emphasis on Ab (bar 293).

When the trumpets resume their canon the clarinets recall the
intervallic patterns at bars 288 to 290 with prominent falling ninths.
The canon follows the same pattern as before but it is anchored over an
F fifth oscillating spasmodically in the low harp. This makes the Bb
bass of the approach to the final cadence seem to be even more
insistently dominant, and when the usual half-resolution on a D triad
over a Bb bass is followed by a chord over an E natural bass, it
recalls those numerous witty neo-classical pieces (29) where an extra
degree of excitement is elicited by raising the expected chord of
resolution a semitone or tone. The chord itself, with its major and
minor added seconds recalls a more recent memory: bar 249. It also
contains all the notes of the movement's opening bars, thus providing a
very graphic example of the way Stravinsky maintains relationships
between the linear and the harmonic.

(29) From the first of Satie's Trois Gymnopédies through Poulenc's
Gloria and Milhaud's Le boeuf sur le toit.
The concept of harmonic rhythm has always had value in discussing Stravinsky's music. All the movements in Agon endorse the idea that variation in harmonic rhythm is an important element of long-term structures. The opening, closing, Prelude and Interlude movements all have long phrases in slow moving harmonic rhythm, though bars 39 to 42, 49 to 52, 599 to 602 and 606 to 612 contrast with intensifying harmonic speed.

Within the Bransle Bay, Stravinsky's controversial barring is determined by the detail of the harmonic rhythm. No doubt regular 3/8 barring would have been possible but, because of the piece's harmonic rhythm, it must be easier to play as it is. Far from being evidence of a spurious intellectualism, it illustrates Stravinsky's professional practicality.

It is altogether a delicate and witty movement compared with the vigorous and assertive trumpet canons of the previous movement, and Stravinsky seems to be teasing with the repeated Bb/Eb/F chords. If only the harp Eb were placed under one of them, rather than under the B/D/F/Bb of the flutes and bassoon! But it never is. The whole movement has a quality of being suspended. When the castanet continues after the woodwind's final chord there is a sensation that it could continue indefinitely. The bar of solo castanet repeats (bar 315), and the opening phrase repeats, but is reordered: bars 316 to 319 are the same as bars 313, 314, 311 and 312. Although the delays and anticipations of the bassoon line help to emphasise the linear aspect of the music, the mosaic-like reordered repetition, with rhythm and emphasis intact, points to harmonic rhythm as this section's most prominent feature.
After another 3/8 bar of castanet, a linear middle section begins: a syncopated hexachord repeats with different rhythm and emphasis in the first flute: C, G, F, Bb, Ab, B. With the A at the end of bar 326, all twelve notes have been used in the Bransle Bay. The initial flute hexachord is in part given in transposed retrograde inversion in the first clarinet in bar 326. All the flute and clarinet lines from bar 321 to 331 are composed of responses in retrograde and inversion rather than direct imitation. The one point of direct imitation, between first flute and first clarinet a fifth higher, loses its initial fifth. If one looks at the example below there is an evident tonal argument for this omission. The clarinet takes over the B natural from the first flute because the F#/G#(Ab) progression to B/C# is cadential, and to have introduced the G of the initial fifth would have been totally to change its character. Intervals classes 1, 2 and 5 are prominent and characterise the lines, as do the semiquaver/quaver movements and the use of acciaccature. Thirds and sixths are also used, so the only missing interval is a perfect octave. Perhaps a more notable recurrence in the lines is the falling tone. Even in this highly chromatic context the upper of the two notes repeatedly has the quality of a suspension, or another form of dissonance, and each time seems to resolve down a step (ex. 2.34).

Example 2.34: Agon.
Another characteristic of the lines' interrelationship is reordering. As the opening passage (bars 310 to 314) was repeated in a different order (see above) so, on a much smaller scale, the point of imitation described above picks up at a later point in the line (ex. 2.34, p. 116), but then restores the abandoned fifth after the second fall of a tone. The claim that Stravinsky's intervals retain their tonal integrity is never more clearly illustrated than in this highly chromatic, quasi-serial passage. The lines' response to each other is a kind of compensation. The falling sixth in the second clarinet (bar 328) answers the rising sixth (diminished seventh) in bar 326. The second clarinet's chain of rising ninths (minor ninth and augmented octave) of bar 331, inverts the pattern shared by both clarinets in bar 328. Such strong characterisation and intimate interaction establish the linear logic.

The need for resolution to Eb that was bequeathed by the Bransle Simple, is no longer pressing as the movement ends. The return to familiar material and the progression from A# to Bb provide something like a resolution. The sensation of having been left with the possibility of endless repetition at the end of the movement is not only the product of the castanet's insistent rhythm; it is also the promise of further sharpward progression.

Like the Coda (bars 185 to 253), the Bransle Double has a complete series. It is stated in bold violin octaves, *forte* and *ben marcato*, C, D, Eb, F, E, A, B, Ab, Db, Db, Ab, Bb. For many movements Gb/F# is a pivotal enharmony, and it is well placed here for a return to C, but the treatment of the series is unorthodox and bears more resemblance to
the reordering of the Bransle Gay. The series itself, like the others, is as diatonic as possible, deriving from two scale passages ending in potential perfect cadences for each hexachord: the first in A, the second Gb. The hexachords begin with C and G respectively. There are only two instances of what has been called chromatic contradictions: Eb, F, E, and A, B, Ab, but the adjacent tones and semitones furnish ample opportunity for Stravinsky’s idiomatic leaps of sevenths and ninths, sequential lines, and provide lengthy fragments of octatonic scales.

In the first full statement of the series, Stravinsky picks out three different falling minor sevenths by using a dotted rhythm on the repeated upper note. The notes in the counterpoint provided by tenor trombone and trumpet (a shared single line) are all derived from versions of the series, but it is as though Stravinsky composed the piece with the four versions of the series in front of him and chose snippets from here and there to suit the context:

original (0) C D Eb F E A G Ab Bb Cb Db Gb
retrograde (R) Gb Db Cb Eb Ab G A E F Eb D C
inversion (I) C Eb A G G# D# F E D C# B F#
retrograde inversion (RII) F# B C# D E F Eb Ab G A Bb C

Under the opening violin line the tenor trombone appears to begin by repeating 0.9 and 0.10, eventually proceeding to 0.11, and, after the line moves to the trumpet, giving 0.9, 0.10 and 0.11 once more. The trumpet’s contribution to the line begins on RI.4, but RI.5 (E), also the fifth note of the original series, suggests continuation to A, 0.6.
It is worth looking at this careful game closely. Example 2.35 is a reduction of the two lines, the one originally shared by the trumpet and trombone, crossing from one staff to another, and the other originally in octaves or unisons in first and second violins.

Example 2.35: Agon.

A better explanation of Stravinsky's method in this passage is arrived at by following van den Toorn's observations (30). The series can be seen as two hexachords:

C D Eb F E A / G Ab Bb B Db Bb

and then the line shared by the trumpet and trombone is no longer a puzzling repetition of selections from the series, but a complete statement of a transposition up a minor third of the second hexachord. Stravinsky's interest is still focussed on intervallic relationships rather than manipulation of a whole series.

Many tonal implications are fleeting but there can be no doubt that they are an important element in the music; the fourths carefully selected for the original series always have their effect. The firmness of the A resolution in bar 337 (although it immediately moves on to D and to G) and again in bar 339 are typical of the effect, throughout the movement, of this aspect of the series. In van den Toorn’s terms, the fourths govern the process of serial extension (31). The triads of the prevailing Eb minor and A major tonalities can be drawn from the same octatonic scale (32).

In addition, the large-scale repetitions of the French seventeenth-century dance forms are preserved. From the completion of the retrograde inversion in the violins in bar 343, the original version begins again, and bars 344 to 351 are a varied repetition of bar 336 to 343. A line that begins with the original and proceeds to the retrograde inversion, of course, begins and ends on C, and ends with an attractive Bb - C modal cadence. The repeated E - F ninths in bars 341 and 349, and the strategically placed low Bs in bars 343 and 351, strengthen the effect of the Bb - C cadences.


Just as neoclassicism is heard . . . as a form of accommodation between classical C-scale . . . and a symmetrically defined partitioning of the octatonic collection, so might the early serial stage be reckoned an imposition of a formalized, order-logic on an existent articulative mold.
In the repeat, when, as before, the tenor trombone B natural is added to the modal resolution of C, the F♯ to B of the violas and cellos (earlier in bar 351) makes it a bichord rather than what it was before, an added seventh. The F/D/E/B chord which follows, characterises the new section (bars 352 to 364). It has the quality of a dominant/tonic combination, plus an added sixth, or even a double dominant/tonic combination: F (A C) E B (B) D (bars 352 to 354, 360 to 362). Other repeated harmonies in the section have a similar quality:

Bb (D F) A C (clarinets, bar 357 and 359),

B (D♯) F♯ (piano, flutes and clarinet, bars 356, 358 and 361) and a combination of the last two: Bb B F♯ A C (bars 363 and 364).

The F/D/E/G chord makes a kind of perfect cadence with the Bb/A/C chord to end the section, though the section's conflicting tonal pull, B - F♯, joins in. The resulting bichords provide a fuller summary of the section's musical argument and no less a decisive tonal statement. In relation to the series, bar 352 uses the initial tetrachord of the first hexachord transposed up a tone: D E F G, and bar 353 uses the initial tetrachord of the second hexachord transposed up a tone: A Bb C C♯; bar 354 uses D E F G again and the C which completes the bar belongs to the transposed second hexachord C♯ D E F G (C) which is used in bars 355 and 356. The sequence of notes D E F G C can also be arrived at by a transposition up an augmented fourth of the last five notes of the second hexachord.
From bar 365 a more exact repetition of bars 336 to 343 begins, giving the movement a sectional form:

- A (bars 336 - 343) A1 (bars 344 - 351)
- B (bars 352 - 364) A2 (bars 365 - 372) Coda (bars 373 - 380)

The only variation in this repetition is the further retreat of the opening C, now diminished to a quaver at the end of the first minia. The last fourteen bars of the Bransle Double (bars 373 to 386) have been labelled Coda, not by Stravinsky, but because of their summative character. The repetition of material is evident in sections A, A1 and A2. Section B provides clear contrast in rhythm and texture. The Coda returns to the time signature of Section B, but its predominantly minim movement has more in common with Section A. Its use of the series is complex, and although the passage is comparatively calm it sustains an intensity by virtue of its concise review of the movement’s tonal argument.

The final resolution is delayed and, although vigorous, very brief. The F and Ab are, at the last moment, transformed from the major seventh and ninth of a Gb dominant/tonic superimposition to the minor seventh and ninth of a dominant discord on G, a suitable anticipation of the C tonality at the end of the following Interlude.
In the Pas-de-Deux all twelve notes enter in the first three bars in the following order: Bb Cb C D Db B E F# Eb Ab F A. Ninths and sevenths recall gestures from other movements. The harmonic pattern which is to dominate the movement is already suggested by the opening notes: Bb Cb (a), C D (b). The chord, which has appeared in many movements (pp. 68, 77 and 91) (prominently in the Bransle Double—bars 357, 362, 383 to 386; ex. 2.36), and referred to as a tonic/dominant combination, is often given in this movement in a full four- or five-note version; its tonal meaning is more subtle than the label tonic/dominant combination would suggest.

Example 2.36: Agon.

The opening Bb and Cb come in one, the most popular, version of the chord, and the C and D another (ex. 2.37).

Example 2.37: chords X and Y.
The two chords, and much of the linear writing in the movement, come from different versions of a scale referred to in Chapter One as one of Messiaen's scales of limited transposition. Arthur Berger was first to describe this "octatonic pitch collection" as "a cohesive frame of reference in Stravinsky's music" (33). Pieter C. van den Toorn confirms Berger's thesis and says that "any collection of eight distinct pitch classes that, in scale formation, yields the symmetrical interval ordering of alternating half-steps and whole steps" is what occupies Stravinsky "not only in early 'Russian' pieces like the Scherzo Fantastique (1907-1908), The Rite of Spring (1911-1913), and Les Noces (1914-1917, 1921-1923), but also in such neoclassical summits as the Symphony of Psalms (1930) and Orpheus (1947), and then later in the partially serial compositions like Canticum Sacrum (1955) and Agon (1953-1957)" (34).


A transcription of the score of Agon with the different octatones represented by different colours will illustrate their use (ex. 2.38).

Example 2.38: Agon.

From the second-time bar, the harmonies of X and Y in ex. 2.37 (p.123) are as prevalent as they were in bars 417 to 422. The fifth sustained from bar 442 in viola and violin solos, as in bars 434 to 435, represents a coming together of the modes: wholly within C, the Eb shared with B, and Bb with A. There is also a relationship between the two fifths that resembles the relationship between the thirds in chords X and Y.
Compare ex. 2.39 a and b, and also the relationship between chords X and Y in ex. 2.37 (p.123): all these are reflected in the major sevenths and minor ninths of the melodic lines.

Example 2.39 a and b compared with chords X and Y from ex. 2.37 (p.123)

The flattened submediant relationship of the E fifth to the return to Ab, (bars 436 to 416) and the pizzicato Ab and C under the sustained Eb fifth in bar 445, all help to determine the simplest element in the movement's tonal argument, the ultimate Gb/Ab resolution: The exposed, più lento, movement from cello harmonic high A to double bass harmonic G# (bar 451) summarises the semitonal (compound or otherwise) relationships noted in the comparisons above.

From the a tempo (bar 452), after the initial minor ninth repeats, the first violin presents another complete series. The relationship between this series and the Pas de Deux initial series is revealed by van den Toorn's tetrachordal articulation: 0235 or 0134. 0134 is the
basic cell, "octatonic in conception" (35), informing the serial invention of the Four Duos and Trios as well as the Pas de Deux. It is significant that van den Toorn's detailed analysis disregards the low C played, as the first note in the viola line, between the Cb and D in his illustration of 0134 sets. Stravinsky's careful placement of this C is evidence of what he referred to as "his" tonal system, one which affirms that "a step in . . . evolution does not cancel the one before" (36). The following example compares the two series illustrating the use of 0134 tetrachords.

Example 2.40.

(36) Stravinsky and Craft, Conversations, pp. 144–45.
The accompanying viola line (bar 452) has a series of major sevenths (or diminished octaves) and one augmented octave, whose mediant relationships clearly relate to the third mode; in ex. 2.41 they are numbered to show the order in which they appear.

Example 2.41: Agon.

The bold and salient sequence of chords that follows is linked to the sequence of viola third-node leaps by a repetition of the series in all the strings. The chordal use of the series is the first example of its kind in the work. All other serial writing has been primarily linear. When the chords begin (ex. 2.42a, p. 129), the choice of notes for the upper strings (bar 457) is initially rather far-fetched: the sequence of harmonies is more important than loyalty to serial logic. The first three chords (ex. 2.42b, p. 129) are each of the X and Y type and have the mediant relationship that is typical of modes C, A and B, and the wholly serial chords which follow also relate to this type of harmony. The final chord combines the opening minor ninth and the notes of the repeat diminished octave for violin solo (bars 419, 439, 440). The bass move from C to Db in the opening bars and from bar 421 to 427, is now fully achieved.

The first two notes of the Coda, B to Ab, are still redolent with the tonal significance they had in the refrain; the next two, Cb to Bb, still full of suggestions of chord X. They are also contiguous notes of
the series: 6, 7, and 10, 11. All but one (D) of the twelve notes appear in the following order in the first two bars (495 and 496):

6 7 10 11 8 9 12 3 2 5 4
B Ab Cb Bb A C Db Bb Eb E F (D)
1 2 3 4 5 6 7 8 9 10 11

The first seven notes are the previous series transposed down a fifth, the last three down an augmented fifth. The order is interrupted by repetition, given in brackets:

VI. I, II Vlo, Vc. VI. I, II Tr. I Pno.
B Ab Cb Bb (Cb Bb) A C Db (A C A#) B (G# B) Bb Eb E F

Example 2.42: Agon.
The violin solo of bar 426 is recalled in bars 499 and 500. The series is worked through in the same order almost three times with liberal repetition of minor ninths and patterns suggestive of chord X (for example, bar 497, Ab, Cb and Bb) before the eighth note, A, repeats in the harp and trumpet. The C - C# - D tonal movement of much of the earlier dance is here (bars 495 to 503) represented by G - Ab - A, though the D missing from bars 495 to 503 denies the A its potential as a dominant. The Doppio lento that follows ends prima volta on E and seconda volta on a repeated G. It begins with a quick resolution to D, the first note in the mandolin apart from an acciaccatura Eb, and a move through a X-type chord from A to D in the harp. Each time the Doppio lento cadences, it does so with chord X-type harmony: E, D#, F#, and G, F#, A. The G tonality at the end of the Doppio lento helps to secure the following quasi stretto a final C resolution. The Stretto limits itself, up to bar 515, to the first heptachord of the series which began the Coda: G Ab Cb Bb A C Db

\[ \begin{align*}
1 & \quad 2 & \quad 3 & \quad 4 & \quad 5 & \quad 6 & \quad 7 \\
\end{align*} \]

Starting from 1 it proceeds to 7 and then goes back to G. The G, followed by a rest, has enough of an effect to transform the earlier prominent bass Abs (bars 512 and 515) into flattened submediants and the telling Dbs of bar 514 into a flattened supertonic. The final line for the tenor and bass trombones uses the second hexachord which makes a descent to a C tonic through a series of arpeggiated X type chords (ex. 2.43).

Example 2.43: Agon.
In reordering previous versions, this version of the series suggests C as tonal centre within the world of bitonalities, chromatic contradictions and emphasis on mediant relationships.

C is the starting point for the Four Duos:

C A Ab Eb Bb Db D F E Eb Bb G.

One might compare it, for the sake of understanding Stravinsky's needs in series composition, with the series of the Bransle Double (ex. 2.44).

Whereas this series progresses from C to G, the Bransle Double's series begins the hexachords with C and G. The leap of a fourth from the last to the first note of this series is matched by fourth leaps at the end of each hexachord in the Bransle Double. Minor thirds are part of the Bransle Double series as the intervals between alternate notes; in the Four Duos they are part of the actual series, alternating with semitones. In such ways do Stravinsky's series in Agon achieve a coherence, and belong to the same tonal world.

The transposed retrograde series continues into the Four Trios, where its last two notes combine with notes 12 and 1 (in that order) of the original series to transform a C cadence into a subdominant modulation (ex. 2.45, p.132).
Example 2.45: Four Trios
(Reduced, without tempo, dynamic and attack markings, to indicate use of series).
This strict and linear use of series and their transpositions has to make, within twenty bars, a transition to the diatonic and modal world of the opening fanfares. The C of the violins and violas becomes a transposition of the retrograde inversion, the final Bb and G, which, in turn, initiates a transposition of the inversion in the violins, which continues against the retrograde inversion in the cellos and violas. This line continues with the inversion as the first and second violins continue with a mixture of note-order from the inversion, the retrograde inversion and the original, before they take over the inversion from the violas and cellos on the second quaver of bar 545. Then follow part of the retrograde in the first violins, another transposition of the retrograde in the seconds against the retrograde inversion on the upper strings (bar 548), the retrograde inversion in the first trumpet and, from bar 549, the transposed retrograde inversion in trumpet I against the transposed retrograde inversion in different rhythms in the strings. From bar 551, the transposed retrograde inversion continues in trumpet I while the upper strings have a transposition of the inversion. A transposition of the original, begun in bar 550 in the tenor trombones, continues to its penultimate note, at the end of bar 552, while the transposition of the retrograde inversion in the first trumpet, begun in bar 549, reaches its penultimate note at the same place. A fragment of transposition of the inversion (up a tone) in the second trumpet, also reaches the penultimate note at the same place, as does the almost full statement of the transposition of the inversion (down a perfect fourth) in the violins and violas. Four penultimate notes arrive together on the last beat of bar 552 and the expected continuation is denied by brief fanfares on four horns reminiscent of the work's opening.
If the lines had continued, their notes would have been A/F#/G/C: what the horns play is A/F#/G/C. As the C, G and A repeat, in the rhythm \[ \frac{\text{à}}{\text{à}} \frac{\text{à}}{\text{à}} \frac{\text{à}}{\text{à}} \], the F# moves to E and G in a transposition of the last three notes of the retrograde inversion. It is this new chord, A/G/E/C, which the horn fanfares continue to use through bars 554 to 557, with triplets of quavers, quavers and tied crotchets. Under the fanfares, the lower strings hesitate to begin a line similar to the opening of the Four Duos; similar in rhythm and texture but using a transposition of the retrograde (bars 553 to 557), and then the inversion which leaves off on its eleventh note, significantly a Gb. The next note is present in the F/A/E/C chord which begins the Coda and the reprise of the music of the initial Pas-de-Quatre; indeed the Gb could be heard as a leading-note to a higher dominant, a characteristic of Stravinsky's tonal writing (p. 91), or equally well a flattened supertonic resolution (as its position in the inversion of the series suggests) to the bass F. The F#/Gb ambiguity is maintained by ensuring that the two Gbs of bar 560 are not in the same voice as either the following G natural or F.

Such fastidiousness demands close analysis, offers an elevated model for the composer and rewards the attentive listener with delight and satisfaction. It is as if the four forms of Stravinsky's tonality identified on page 86 were being harnessed to lead to the same conclusion.
At this point (bar 561), the first movement's F/B/C chord, with its "Lydian" fourth offering potential for chromatic extension without leading-note-type progression, is replaced by a fuller dominant/tonic-type combination. Because the notes of the inversion of the series and the preceding transposition of the retrograde (bars 553 to 560) had been deployed to ensure that the lower notes suggest a simple diatonic progression (F - D - B - C - B), the Coda begins with a sense of resolution. Apart from the thicker scoring and some slight readjustments of emphasis in the rhythm, the Coda proceeds to recapitulate the first movement. The final C/F/D/G/C chord is strengthened with contributions from the piano, timpani, mandolin and upper strings. The long-term significance of F#/Gb enharmony enhances the F#/Gb change of bars 29/30 and 589/590, and strengthens the impact of the horn F# in bars 48/49 and 608/609, and endorses the sharpward progression of the Coda with its ultimate C resolution. (A clear example of the F# resolving to the dominant comes in bars 55 and 615.)

The work's resolution on C is indeed achieved by the whole work in its frame and its detail, and a Stravinskian form of serialism, which respects the integrity of intervals and the tonal implications of all pitched sounds, has been convincingly achieved.
Tippett's Sonata No. 3 for Piano

- Allegro -

- Lento -

- Allegro energico -
Whereas Debussy and Stravinsky demand close attention because of their assured techniques, Tippett's music seems to possess a freedom, even a looseness, which deceives analysts into thinking that it is uncontrolled. Until the music is listened to intently it is easy to believe that its preservation of Beethovenian values in a world of fragmentation is the product of magic or simply serendipity.

Tippett's late achievement of techniques other composers have been able to enjoy almost as birthrights has meant that he preserved a modest respect for the ossified "tonal truths" propagated by English academe when continental contemporaries were exploring new territory. His devotion to counterpoint is partly an instinctive rejection of text-book harmony (37). Conservatoire counterpoint was less fully systematised, closer to real compositional practice. After hearing Agon, Tippett achieved his final "emancipation of the wrong note" (38). For those who were afficionados of Tippett's music, King Priam came as a shock (39). Characteristic melodic writing seemed to wander off and get lost; lines were ostensibly initiated and abandoned in mid-flight.

(37) Kemp, pp.90-97.
(39) The author recalls a conversation with Meirion Bowen after the first performance of King Priam (Coventry, May 1962).
Tippett's music had always had a flowing, rhapsodic quality. In works like the Concerto for Double String Orchestra (1938-9) he had achieved an exhilarating jazz-like flight, but largely by rhythmic and contrapuntal means. The tonality of his early works (1934-58) was firmly rooted in his study of Beethoven (long-term tonal structuring), but also represented a rebirth of the contrapuntal freedoms of Elizabethan English composers and Purcell, fused with an adaptation of some of the innovations of Jazz.

Ian Kemp (40) discusses the significance Tippett once attached to d'Indy's (41) description of the "structural use of tonality". For d'Indy, sharpward modulation in fifths is towards clarity and flatward, obscurity. The first fifth from C, G or F, is feeble enough; the second, D or Bb, transitory; the third, A or Eb, more decisive; the fourth, E or Ab represents the maximum, the limit of perception of these progressions towards, clarity or obscurity: after this, modulation becomes ambiguous. The fifth sharpward fifth is indistinguishable from the seventh flatward fifth, and the sixth of each, identical. Although this was a concern of his apprentice years (42), it is relevant to what has been claimed for mediant relationships above (p. 20) and below (pp. 144, 153-4, 161 and 185) to note the significance d'Indy attributes to the major and minor mediant and their

(40) Kemp, pp.89-90.

(41) D'Indy, Cours de Composition Musicale, pp.241-261.

inversions, as structural goals. There is no suggestion that mediant and submediant are tonic, dominant or subdominant substitutes. On the contrary, they are considered stronger than the \textit{assez faible} dominant and subdominant.

In later works (from 1958), Tippett has found a tonality which matches his rhythmic freedom. But line is still supreme. The whole of Tippett's œuvre shows an obsession with counterpoint. From King Priam (1958 - 1961) Ian Kemp notes "a much more overtly 'harmonic' style than before" (43). Previously Tippett's music "flowed", now it made "aphoristic . . . single statements". Tippett had heard Agon (first performed in England in May 1958) and was impressed by the unconventional orchestral groupings. He said Stravinsky had "shattered the Rimsky-Korsakov balances" (44). It is not recorded whether other aspects of the work had a profound effect, but another feature of Tippett's style from 1958 noted by Kemp (45) is the "frequent Lydian inflections". Unlike his earlier modalism, resolution is "held in check" and the "Lydian" fourth becomes "a kind of ache in the pure sound of the triad". Stravinsky would have dismissed such expressionist descriptions of his harmony but the effect of the F/B/C chords of Agon could well have stayed with Tippett (see above, p. 68). Kemp also observes an "astringency" and "discontinuity of feeling" from this

(43) Kemp, p.334.


(45) Kemp, p.346.
period, though he adds: "he would not permit himself to lose sight ...
of the opposite end of the spectrum and would instinctively cultivate a
sonorous neo-tonality, precisely for its qualities of warmth and
fluidity" (46). In this sense, tonality and line in Tippett are not
readily distinguishable. Even the "aphoristic single statements", some
described by Kemp as "non-tonal motifs", are frequently linear. Rather
than accept Kemp's terminology, "neo-tonality" and the "non-tonal" will
be seen simply as evidence of development in Tippett's tonal
consciousness.

While the cadential patterns of major/minor tonality are avoided,
lines are invested with a diatonic character, often limited to the
notes of a particular key for a bar or more at any given time. There is
no pressing need for individual lines to fill out the chromatic
spectrum. This is achieved gradually and, within individual lines,
often following traditional modulatory procedures. The upper line of
the first movement of Sonata No. 3 provides an immediate example. The
first group of slurred notes is wholly in G major. The second begins
with E minor and ends on the leading-note to its dominant, a promise
that is fulfilled in the following threes, all in B major. At the end
of the quotation (ex. 2.46, p.141) the line moves towards G minor. The
tonal foci suggested by the upper line are heard as a property of that
line, and whereas they, along with rhythm and the shapes of melodic

(46) Ibid., pp.322-354.
gestures, establish the character of the line, they do not necessarily prevail. The two-part texture of the opening is typical of the outer movements. The lower line has an equal freedom of movement. A "Lydian" D is followed by a "Dorian" F# before the whole of bar 3 suggests B major. There is enough repetition and varied repetition to preserve a long-term tonal structuring even within music which maintains linear independence and a quasi-improvisatory approach to invention. The first five bars are given a varied repetition in the next five and extended through the next eleven bars:

1 2 3 4 5 6 7 8 9 10 11
1 + 1, 2 + 2, 3, 4, 5, 5, 5, 5, 5, 5

actual bars 11 12 13 14 15 16 17 18 19 20 21

The extensions of the music of bars 1 (bar 11) and 2 (bar 13) achieve a widening distance between the lines so that when the trill comes again in bar 17, it is a minor third and perfect fourth higher than its earlier manifestations (bars 5 and 10) and it initiates a long extension which takes the form of a downward sequence in waves of
contrary motion. When the sequence ceases, there is no sense of its having reached a tonal goal. On the contrary, this is an example of the now familiar characteristic of Tippett's post-King Priam music: lines abandoned mid-flight. For that matter, the very beginning of the Sonata seems already to be involved in argument rather than making an expository statement. The very first quavers of each line of the opening theme (ex. 2.46, p.141) hold a place which thereafter is always filled by two semiquavers or a triplet of semiquavers. It is as if one had happened upon a couple in fierce debate and had not, at first, quite caught the significance of what was being said. Just as the chords of the slow movement theme are never heard in their basic form, so the themes of this sonata-allegro are in the process of development from the moment they are first heard. It will be noticed in this Sonata how frequently sequence provides forward motion. Equally, abrupt interruption or initiation provides that element which makes Tippett's version of Stravinsky's intercutting more disturbing, more expressionistic, less like the work of a surgeon and more like the work of the butcher whose knife always seems to leave its mark on the figures in paintings by Francis Bacon.

The melodic gestures of this first part (up to bar 21), apart from the trills and semiquaver triplets (ex. 2.46a, p.141), although forming independent lines, all suggest an harmonic, chordal basis: the falling seventh chords of ex. 2.46a, the ninths of 2.46b, the falling major and minor sevenths and chains of fourths of 2.46c and the inverted seventh chords of 2.46d. The next part, from bar 22, is contrastingly harmonic although the chords are built up by a contrary motion, alternating outward and inward movement, punctuated by a spread (linear) version of
the chord alternating upward and downward movement. After the spread chord a brief piece of two-part writing would seem sometimes to derive from and often to clarify the preceding harmony (ex. 2.47a). The first chord, built up, (bar 25 - see ex. 2.47c, 1 - 4) combines a "Lydian" F/A/B/C and a Bb/Eb/C# fifth/minor seventh; the two-part writing after the spread chord in ex. 2.47b alternates between the elements of the initial bichord (bar 25). (The A can be heard as a "Lydian" fourth to the Eb and Bb and, as such, as a common element between them.) After the second chord the piano bass moves firmly from B to C as eight of the twelve chromatic notes are sustained until F natural (the bass of the preceding chord) is reached again. After the third chord, the upper two notes of the chord alternate with the C major seventh from the bass in bar 30 and an Eb (also from the third chord). After the fourth chord, the bass note B alternates with an A fifth and a dominant seventh on A which makes a strong progression to the bar and a half of D major which follows, in spite of the fact that the progression is blurred by the pedal's sustaining of the whole seven-note chord over the A seventh arpeggio.

Example 2.47: Sonata No. 3.
The progression between these four-bar expansions and contractions can be seen in ex. 2.47b (p.143) where the initial major seconds are given unbracketed, with additional prominent major seconds bracketed. Though the progression suggests mediant and dominant/tonic relationships as indicated by ex. 2.47d, it is far from being a mere sequence. Certain features do repeat however; the first addition to the major section A/B is a diminished compound octave, and the same interval joins the B/Eb compound diminished fourth in bar 36. A diminished fifth (F#/C) joins the compound minor third in bar 28 and another diminished fifth (E/Bb) joins the Eb/F major second in bar 32. (This interval, as will be shown later, plays a prominent role in the whole Sonata.) In the first four-bar link in the progression, a dominant seventh on F (bars 25 and 26) is the strongest tonal statement -- the C# and Bb colour but do not disguise it; the next four, F minor, though weakened by the superimposed F#; the next superimposes an Eb added second chord, A and F# over E and G# and remains steadfastly ambiguous; the B and Eb of bar 35 are heard as a B major tonality even when C, C# and D are added in a crush of minor third and added seconds, so that when G and A are added they give the chord the character of a dominant of E minor -- an appropriate preparation for the A dominant seventh which links into the D major semiquavers and falling ninths of bar 39. The return of the falling ninths is typical of Tippett's structural devices.
The structure could be labelled Rondo/Variation. Tippett himself has acknowledged the influence of the Beethoven sonata-allegro (47). There is also obviously some debt to the static models of Stravinsky's works such as the Symphony of Winds, but the freedom and mixture of the various elements are Tippett's own.

(47) Michael Tippett, Sleeve note of recording of Sonata No. 3 for Piano, Phillips 6500534

(48) Kemp, pp. 456-9. Kemp describes this movement as "an irascible sonata-allegro" with an "apparently perfunctory design" while pointing out that the structure of the whole Sonata represents "a continuous span of music, strong and simple in outline and allowing room for a great variety of expression within it". There is no conflict between these different analyses. Beethoven's variation-rondo movements were informed by his sonata principle.
The outline pattern of the movement can be given thus:

(Ian Kemp's analysis (48), following Tippett's description of the movement as a sonata-allegro, is given in brackets.)

Bar nos.

1 - 22  A  (First subject in B)
A lyrical quaver progression from D to B in R.H. against rising ninths in L.H.; trills; semiquaver triplets; falling ninths. Three phrases, the last extended.

23 - 39  B  (Second subject group: 1st theme in modally related A)
Expanding and contracting chords; two expansions and contractions starting from major seconds.

39 - 55  A\textsuperscript{1}  (Second subject group: 2nd theme, beginning in B minor
 Falling (R.H.) and rising ninths (L.H.) alternate, plus semiquaver figuration. Three phrases, the last abbreviated.

56 - 64  C  (Codetta theme to dominant of F\#)
Dotted rhythms.

64 - 94  A\textsuperscript{2}  (Return to tonic B)
Similar use of falling R.H. and rising L.H. notes. The dotted rhythms of C join the semiquaver figuration. The trills and semiquaver triplets of A return.

95 - 111  D  
Sustained chords and mordents.

111 - 133  A\textsuperscript{3}  (Recapitulation initially in B)
The mordents of D suggest the trills of A and the return of falling ninths - the music of bars 1-21 is given ornamented with the mordents and trills of D though the semiquaver triplet extension of the final phrase is adjusted up a tone.

134 - 149  B\textsuperscript{2}  
Chords like those of Section B's are elaborated with trills and semiquaver figuration.

150 - 166  A\textsuperscript{4}  
Like A\textsuperscript{1} but up a tone and with the end of the third phrase of A added and extended.

167 - 175  C\textsuperscript{2}  
Like C but up a tone and with sustained notes trilled.

175 - 191  A\textsuperscript{5}  
Like A\textsuperscript{2} but up a tone.
The return of the falling ninths in bar 39 recalls the characteristics of the opening, and the falling ninths, no longer accompanied by rising ninths as in bars 3, 8 and 15, are supported by arpeggiated chordal patterns in free flowing semiquavers. The trill that previously marked the end of a downward sequence of falling ninths is replaced by a sustained chord which marks the goal of a sequence which falls, rises and falls — the first two times to reach a semitone higher than the starting point; the last, abbreviated, to return to its starting point. After the right hand sequence of falling ninths (bars 39 to 41), the rising ninths answer in the left hand, and the right hand takes over the semiquaver figuration (bars 42 to 44). Each three-bar group moves from D (often a G/A bitonality) to a Bb/Ab bitonality which moves towards a dominant seventh on C. In bar 41 the sustained Eb of the right hand Ab chord changes to E natural, and the figuration of the last dotted crotchet is G Bb C F E C; in bar 44 over the Ab 4/2 chord the right hand figuration of the last dotted crotchet reads Eb G E Bb C B. The Bb in the bass of the left hand Ab 4/2 chord does not resolve downwards by step to an F but the tonal centre of bar 45 and the first half of bar 46 is F. The Ab7/C7 bitonality of the end of bar 44 is heard to resolve firstly in the F major of bars 45 and 46 and then in the Db/Cb of bars 46 and 47. From bar 45 the music from bar 39 is transposed up a minor third; the third, abbreviated group of slurred notes begins down a tone from bar 39, but the rising and falling sequence rises an extra link to arrive at the same place in bar 53 as the shorter sequence did in bar 40, before continuing to fall to leave off on a dominant thirteenth on D.
The pattern of A1 is, therefore:

<table>
<thead>
<tr>
<th>Bar nos.</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>39</td>
<td>1</td>
<td>R.H. falling ninths</td>
</tr>
<tr>
<td>40</td>
<td>2</td>
<td>L.H. semiquaver figuration</td>
</tr>
<tr>
<td>41</td>
<td>3</td>
<td>D - Bb/Ab + C7</td>
</tr>
<tr>
<td>42</td>
<td>4</td>
<td>R.H. semiquaver figuration</td>
</tr>
<tr>
<td>43</td>
<td>5</td>
<td>L.H. rising ninths</td>
</tr>
<tr>
<td>44</td>
<td>6</td>
<td>D - Ab/Bb ; C7</td>
</tr>
<tr>
<td>45</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>46</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>47</td>
<td>3</td>
<td>as before up a minor third</td>
</tr>
<tr>
<td>48</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>51</td>
<td>1</td>
<td>down a tone</td>
</tr>
<tr>
<td>52</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>2</td>
<td>at original pitch</td>
</tr>
<tr>
<td>54</td>
<td>2</td>
<td>down a tone</td>
</tr>
<tr>
<td>55</td>
<td>3</td>
<td>down a minor third</td>
</tr>
</tbody>
</table>

The dotted rhythm melodic shapes of C are closely allied to A, but the promise of the dominant 13th in bar 55 is denied, and the rhythm and texture are strikingly new. The right hand and left hand answer each other as they did initially in A1, but the harmony suggests Eb, then C minor/major and F minor/major. It is the intervals — major sevenths, ninths and perfect fourths — which remind one of the opening
material. Compare exs. 2.48 and 2.46 (p. 141).

Example 2.48: Sonata No. 3.

The chains of fourths in the Sonata's left hand opening (exs. 2.46 and 2.46c, p. 141) have an echo (marked in red) in ex. 2.48 as do the sevenths (ex. 2.46a) and ninths (ex. 2.46b). The B Eb F pattern of bar 56 is redolent of the pattern in ex. 2.46b; similar falling ninths are given in the left hand in bars 59, 61 and 62. The fourths are prominent in bar 62: Ab/Eb/Bb in the right hand followed by G/D and Eb/F. Bar 63 has strong Bb/C# fourths in the left hand and a significant E to A progression. E to A and A# to D# are prominent in bar 64 and make way for the resumption of A up a major third in F# major. In terms of A1 (arabic numerals) and C (Roman numerals) the pattern of A2 is

\[ \begin{align*}
1 & 2 & 3 & 4 & 5 \\
1 & 2 & 1 & 2 & 3 \\
+3 & +3 & +3 \\
1 & 1 & 1 & 1 & 1 \\
5 & 5 & + & + & + \\
\end{align*} \]

Just as C is allied to A, so D is related to B. Again, mediant relationships are established; the notes repeated in octave leaps are
underlined, and other notes are given in the chordal groups in ex.
2.49.

Example 2.49: Sonata No. 3.

From bar 103 the line is heard to progress upwards by step — B C (Ab)
D E (A7/5) F (bass note) — and then from bar 107 in semitones — Bb B
C D D# — though often displaced by octaves or buried in the
elaborate texture of triplets and trills, but nevertheless providing
momentum (ex. 2.50).

Example 2.50: Sonata No. 3.

The use of such long-term linear sequences is one of the ingredients in
the music's quality of being free-flying. Ornamented, the original
version of A resumes in bar 112 (compare bars 1 to 21 with bars 112 to
132). The same pitches are used until bar 128 where the last four
semiquavers of the right hand and last semiquaver of the left hand are
transposed up a tone and, from then on, bars 129 to 132 continue the
transposition exactly.
The two eight-bar phrases labelled B (bars 23 - 38) are given again (bars 134 - 149), thoroughly rescored with added semiquaver passages of wide-flung sevenths and ninths and with much upward transposition; the essential transposition is up a tone though within this general tendency there are detailed alterations. Compare, for example, bars 26 and 137. What discrimination decided on the D trill? A repeated F natural in the movement between the right hand chords in bar 137 would have obscured the bitonal alternation, clear in bar 26. Bar 150 sees continued transposition up a tone, this time of A, and this time exact, without ornament or variation or changes in texture. When C returns, it is ornamented with trills on the long notes but the exact transposition continues as before, up a tone. A5 transposes A2 up a tone (compare bars 64 to 71 with bars 176 to 182) but leaves off abruptly after seven bars.

After a minim rest the trills, familiar from the fifth bar of the movement, resume. The music here is from bars 87 to 93, but transposed up a perfect fourth. As observed before, the pitch of the initial trill in bar 183 recalls the end of the third group of slurred notes of A. The wholesale transposition of bars 87 to 93 allows the movement itself to end with the sensation of interruption favoured by Tippett, in such mosaic-like structures, from King Priam onwards and most notably in Piano Sonata No. 2.
This matter is dealt with by Ian Kemp (49), and his words, already quoted, should now be given in context:

If, as was increasingly the case, his music tended towards astringency and discontinuity of feeling, then he would not permit himself to lose sight in the process of the opposite end of the spectrum and would instinctively cultivate a sonorous neo-tonality, precisely for its qualities of warmth and fluidity.

From the evidence of this work and others from 1958 onwards, discontinuity is certainly a feature of Tippett's style. Astringency is less obvious. The material is often pithy. It often makes a powerful and sudden, even unexpected impact. But the words "abounding, generous and exuberant", twice used by Tippett himself (50) to describe the sort of corrective beauty he wanted to lavish on "a world of mediocrity and shattered dreams", would seem to place more emphasis on the latter part of Kemp's sentence. Kemp also describes this movement as "apparently perfunctory in design" (51). The astringency is only apparent too, because it is really snatches of lyricism, fragments of music which elsewhere are freely, if never fully, extended.

(49) Kemp, Tippett, p.346.
(50) Tippett, Moving into Aquarius, pp.100 and 156.
(51) Kemp, Tippett, p.457.
In detail, how is this idiosyncratic mixture of continuity and immediacy achieved? The sequence (from bar 183) moves upwards in major third leaps. The prominent trills pass in imitation from the right hand to the left, a diminished fifth/augmented fourth below -- Eb A; B Db; B F -- and the next Eb A is reached at the beginning of bar 187. The augmented triads and diminished fifths dominating these closing bars ensure tonal ambiguity as surely as their sequential repetition and transposition from earlier in the movement reinforce the traditional procedures of tonal organisation. The imitation at a diminished fifth adjusts in bar 187 (and 90) to imitation at a perfect fifth, and the links in the sequence fall by a tone -- Bb F#; Ab E; Gb D. The imitation, never exact, from bar 92, ceases, but the extension of the lines is still informed by sequence and repetition as indicated in ex. 2.51.
In the penultimate bar, reference is also made to the earlier figure previously initiated by a trill, although the triplet of semiquavers that fall by step at the end of the groups marked in ex. 2.51 (p.153) in green, were previously always either inscribed a minor or diminished third. At the end of bars 93 and 190 comes the only incident of a major third (diminished fourth). The contrapuntal effect of suspended dissonance at the end of bar 93 resolves onto a chordal dissonance at the beginning of bar 95. The right hand line of bar 93 falls a semitone and the left hand line rises a tone. Although the pause at the end of the first movement is long, the \textit{attacca} indication is fully justified by the linear resolution: here the right hand falls a tone and the left hand rises a semitone (down an octave). Although the tonality at the end of the first movement is fluid and unresolved, the initial chord of the Lento has the character of a supertonic discord in Db; of course nothing so crude as a resolution in that key follows, but before proceeding with the second movement it would be helpful to review the patterns of transposition and repetition in the first movement.

Transposition and repetition are well established methods of tonal organisation. Their rigid and mechanical use has been responsible for some of the most predictable European music. Here, on the contrary, their free use is an important contributory factor to the sonata's characteristic quality of improvisation. The following chart shows that this spirit of spontaneity is not, however, the product of serendipity.
<table>
<thead>
<tr>
<th>Bar nos.</th>
<th>Bars</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 22</td>
<td>A</td>
</tr>
<tr>
<td>5 - 6</td>
<td>varied repeat of 0-1 at pitch</td>
</tr>
<tr>
<td>7 - 9</td>
<td>transposition up major 3rd of 2-4</td>
</tr>
<tr>
<td>10</td>
<td>varied transposition of 5 down a tone</td>
</tr>
<tr>
<td>14 - 16</td>
<td>varied transposition of 2-4 up a semitone</td>
</tr>
<tr>
<td>17</td>
<td>varied transposition of 5 up minor 3rd</td>
</tr>
<tr>
<td>23 - 38</td>
<td>B</td>
</tr>
<tr>
<td>31 - 38</td>
<td>very freely varied transposition of 22-30 up diminished 5th initially, up minor 3rd and down diminished 5th in parts, and ultimately up a tone</td>
</tr>
<tr>
<td>39 - 55</td>
<td>A1</td>
</tr>
<tr>
<td></td>
<td>The R.H. falling 9ths and L.H. rising 9ths of A inform this section.</td>
</tr>
<tr>
<td>45 - 50</td>
<td>transposition of 39-44 up minor 3rd</td>
</tr>
<tr>
<td>51</td>
<td>transposition of 39 down a tone</td>
</tr>
<tr>
<td>53</td>
<td>repeat of 40</td>
</tr>
<tr>
<td>54</td>
<td>varied transposition of 40 down a tone initially, then down minor 3rd</td>
</tr>
<tr>
<td>56 - 64</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Rhythmic patterns and intervallic shapes repeat but there is no substantial transposition</td>
</tr>
</tbody>
</table>
64 - 94 A2

64 - 66 varied transposition of end of 2-4:
R.H up a 3rd, first minor then major,
L.H. down perfect 4th

72 - 74 transposition of 39-41 down compound
perfect 5th, with last bar varied

76 - 79 transposition of 42-44 down perfect 5th
from 80 dotted patterns of C join semiquaver
figuration of A1

87 trilled triplet semiquaver pattern of 5
resumes

89 - 93 transposition of 17-21 up minor 3rd

95 - 111 D

97 - 98 repeat of 95-96, last note up a semitone
101 - 102 repeat of 99-100, last note up augmented
4th

97 in L.H. repeat of 95
99 & 101 in L.H. transposition of 95 up augmented
2nd

103 in L.H. transposition of 95 up major 5th
105 in L.H. transposition of 95 up major 7th

111 - 133 A3

111 - 120 varied repetition of 0-17

128 in R.H. last 4 semiquavers and in L.H.
last semiquaver, transposition up a tone

128 - 132 transposition of 17-21 up a tone

134 - 149 B2

134 - 149 transposition of 23-38 up a tone

150 - 166 A4

150 - 166 transposition of 39-55 up a tone

167 - 175 C2

167 -175 varied transposition of 56-64 up a tone

175 - 191 A5

175 - 182 transposition of 64-71 up a tone
184 - 190 varied transposition of 87-93 up perfect
4th
All this is clear evidence of Tippett's "abounding, generous, and exuberant" use of tonality. As has been noted by Meirion Bowen, Ian Kemp and even Tippett himself (52), his music seems to provide a corrective to society, the lyricism of his earlier music giving way in 1958 to a more assertive style in which to reprimand the laxity of the Sixties, and already in this Sonata (1972-3), with its long arches of fluid forward movement, there is the beginning of a new aspiration and warmth with which his music has turned us from the greedy, hard-nosed world of the later Seventies and Eighties. Perhaps even more important is the promise this movement makes of unity. Not only does the first movement resolve into the second, it anticipates the last, in theme and texture. The flowing tonal organisation of the first movement becomes more frantic in the last; the warmth of the initial Allegro is balanced and intensified by the passion of the Allegro energico. Whether his tonal organisation encodes, corrects or foretells the condition of society, in Tippett's music there is always a germ of hope. Freedom and diversity in a just and unified society are goals still to be achieved.


Ian Kemp's description of the slow movement as "a structural metaphor of inevitability" neatly summarises the five variations on a sixteen-chord sequence, each variation rising by a minor third to arrive where the movement began. The most notable feature of the movement, given this enclosed form, is its improvisatory quality. As is often the case with jazz, the clearest harmonic basis allows the greatest freedom of invention. Linear embellishment has been one of the most distinctive characteristics of Tippett's music. This slow movement, with its fixed and "inevitable" harmonic sequence, provides a unique opportunity to study Tippett's elaborate melodic invention (ex. 2.52).

Example 2.52: Sonata No. 3.

It should be said, however, that there is no basic form of the sequence. Example 2.52 gives the chords as they appear first. But they are already being varied, embellished, extended, from an assumed but never-stated theme. Even in such an enclosed form, Tippett manages to give the impression of having entered the movement while it is already underway. As will be seen, the variations borrow from each other but have a measure of independence which suggests that they are referring back to a common unacknowledged root. No section of the movement will be referred to, therefore, as a theme, but rather as variations:
bars 192 - 210 Variation One
211 - 229 Variation Two
230 - 248 Variation Three
249 - 267 Variation Four
268 - 286 Variation Five

For the first six chords of Variation One there is no linear invention beyond spreading the chords, though the rhythmic representation of the harmonies creates a poised tension which dissolves into a flourish. From the seventh chord, additional notes embellish the lines which build up the chords. Many of the chords suggest bitonality; all of them superimpose triadic harmonies. The seventh chord’s bass gives the chord something of an F# minor-with-an-added-major-sixth quality, whereas the upper notes suggest a D minor dominant minor thirteenth (ex. 2.52, chord 7, p.158). The whole chord could equally well be seen as a dominant chord of a kind of “Phrygian” E, the D#s and C#s counterbalanced by G and F naturals. The only notes additional to chord 7 in bar 198 are B and E. Notes of the chord are repeated in different octaves: the interpolated Bs and Es suggest alternation with a possible resolution. The F# minor/D minor bitonality suggests a meeting place in E and this is pointed out by the lines (exs. 2.53a and 2.54a, p.160) both of which independently suggest an E resolution, though actual resolution is avoided because each line’s potential resolutions never coincide.
Example 2.53: Sonata No. 3.

Example 2.54: Sonata No. 3.

The way in which the lines quoted focus around an E is characteristic of the way in which the embellishments develop throughout the movement, often spinning off from a single note, always informed by the tonal implications of harmony. Chord 8 is a simple D and E bitonality, but the pattern of embellishment is close to that of the previous two bars. The right hand suggests a "Phrygian" G#, and the F# of the left hand is preaced by repeated suggestions of a dominant seventh on C#. The ninth
chord combines dominant sevenths on C and G, and marks a caesura in the sequence of chords. The pattern of elaboration established for chords 7 and B is taken further. The initial right hand rhythm is replaced by , with octave leaps up and down on the first note. The rhythm is reserved for the point where the earlier chords had come to rest on a dotted crotchet. Here the rhythm is repeated as the line reinforces the blues note quality of the Bb/B clash by picking out higher dominant discords before resting on the low B natural. The prominent use, in the embellishment of chords 7, 8 and 9, of diminished and augmented fourths, gives the music an expressive, yearning quality which allows the chord, once reached, something of the character of a resolution, while the chords themselves, so far, all have the clearly directed key-sense of dominant discords suggesting the following key sequence: Db, F, Db, E, F, C minor, E minor, A, F. The mediant sequence of the variations is already anticipated in the sequence of harmonies, though the recurrence of F establishes it, at the caesura, as the essential tonic, and invests the sequence with enough homogeneity to make the transpositions of each variation clearly audible. The total sequence -- Db, F, Db, E, F, C minor, E minor, A, F; "Dorian" G, Bb, F minor, Db, C, Ab, A minor -- establishes another mediant relationship from the F of the caesura to the A minor conclusion, as well as adding to the mediant steps already made. The whole progression (ex. 2.52, p.158) suggests a sequence of tonalities that moves entirely in thirds (major and minor), perfect fourths or semitones. The overall major third upward progression of the chord sequence's tonality -- Db - F - A -- is paralleled by the minor third modulations between sets of variations -- F, Ab, B, D, F.
In the first variation, the tenth chord returns to the first chord's pattern but with the addition of mordents on the initial notes, but the eleventh is altogether more elaborate. Initially like chord 10, its independent demisemiquaver-triplet lines of right and left hands take off, and the flourish becomes an expansive journey rather than the earlier snapped-off affirmation of the established chord. As free and spontaneous as it sounds, its movement is almost entirely conditioned by the mediant progressions already noted. As before, initially the notes spin out from a single note, C, but first the right hand and, towards the end of bar 204, the left hand, have sequential chains of thirds. The blues-note major/minor dissonances are prominent too within lines. The right hand has Eb/E, B/Bb, F#, A/F, Ab juxtapositions and the left hand Bb/B and E/Eb. The twelfth and thirteenth chords expand a simple spreading of the chords with syncopated repetition. The fourteenth and fifteenth are preceded by a pattern similar to the beginning of the eleventh chord, but the sixteenth resembles the spread-chord pattern given to the first six chords — the only difference in treatment is that it is sustained for longer.

When the second variation begins (bar 211), up an augmented second (minor third), the writing is initially more harmonic with hushed repetitions. The C/B#/A pattern of the upper line may be compared with earlier embellishment. Compare bars 198 and 211 (exs. 2.53a and 2.54a with exs. 2.53b and 2.54b, p. 160). The similarity in embellishment is evident in the use of minor thirds (bracketed in black) and diminished fourths (bracketed in red). The prominent use of minor thirds is an example of Tippett using the interval that provides the underpinning structure, also to extend the lines. The variations
follow each other in a succession of upward minor thirds. The second chord is extended by a progression of harmonies which immediately move away from the Ab centre suggested by the Eb/Bb/F/Ab/G/Bb/Db bichord (fourth quaver of bar 212) towards F# minor. The progression includes two diminished sevenths, the first leading towards a dominant ninth of Ab, the second to an augmented sixth chord which resolves onto the returning F# minor ninth chord. The third chord (bar 213) is identical in form and treatment to the first in this variation. The fourth (bar 214) is treated similarly to the second but the differences are instructive (ex. 2.55a and b).

Example 2.55: Sonata No. 3.
After the chordal repetitions, each extension begins with a minor third added on top, and both upper lines continue from that point with three semitone steps, one down and two up, before continuing an upward sequence. Example 2.55 (p.163) illustrates the freedom Tippett is able to win by following the tonal conventions of repetition and sequence, avoiding exact sequence, but maintaining a coherent language by means of limitation of intervals: at these points, he uses fourths, thirds and seconds in the right hand and sixths, sevenths, fourths and fifths in the left.

The tonal implications of the second variation's four-part harmony are clear. The lines seem to have lives, and certainly a logic, of their own. Within a generally euphonous harmonic language, dissonance is used consistently. Whereas chords frequently contain the three notes of a triad, they will also contain seconds, fourths, sixths or sevenths. When a chord does not contain a triad the four notes will frequently fall into a bitonal pairing like Eb, Db/A, C in bar 212, or C# E/B D in bar 214. The last chord of bar 214, an A tonic/dominant combination, like the last of bar 212, makes an upward semitonal line to the top note of bar 215, and yet it has none of the inherent tradition of need for resolution of the augmented sixth. The mediant progression in the bass from A to C is like the earlier movement from Bb to F# (bars 212 to 213). This suggests that for Tippett, even in a set of harmonic variations, the linear implications of tonality are often stronger than the vertical. It is more important that the bass line should make a mediant, and the top line a leading-note, progression, than that the ultimate chord of bar 214 should be a chord.
parallel in function to an augmented sixth (exs. 2.55, p. 163, and 2.56).

Example 2.56: Sonata No. 3.

In bars 215 and 216 the chords five and six return to the pattern of bar 211. Apart from the addition of an octave demisemiquaver flourish, bars 217 and 218 follow the same rhythmic pattern as bar 212. There are close similarities in the melodic pattern too, though the repeated chords of bar 212 give way to alternation suggested perhaps by the movement in the fifth quaver of bars 212 and 214: compare exs. 2.55a and 2.55b (p. 163) with ex. 2.57.

Example 2.57: Sonata No. 3.

From bar 219 a longer extension of the same kind of variation seen in bars 217 and 218 spans an additional 2/4 bar. The contrary motion progression to end bar 217 and the rising progression to end bar 218, in bars 219 and 220 first falls and then rises, using the same
varieties of rhythm and harmony. This extension marks the tonal caesura described above. The tonal shape of the chord sequence is enhanced by dynamics, a carefully graded crescendo reaching its climax at the beginning of bar 219 and falling back to the variation's and the movement's initial pianissimo when the chordal variants proceed from bar 221. Bar 221 resembles bars 211, 213, 215 and 216, but bar 222 enjoys an extension even longer than bar 219's. Beginning with contrary motion, similar to bar 217 (crescendo), it repeats a figure before falling (disinuendo), like the end of bar 219, and then continuing in contrary motion to the next chord in the sequence. This dynamic wave (bars 222 and 223) imitates the broader wave (bars 211 to 220) and the smaller waves within single bars (bars 211, 212, 213, 214, 215, 216 and 221). The repetition at the beginning of bar 223 (see ex. 2.58 and compare bars 222 and 204) marks the highest point in the original chord sequence and emphasises the blues notes; the A and E above the bass F (chords 1 and 4) change to Ab and Eb (chord 7). "Lydian" notes are also prominent: B naturals in F based chords (1, 2, 4 and 5) and F#s in C (3 and 6). This moment represents a clarification of the harmonic significance of many other progressions where the lines' continuous movement holds the listener's attention.

Example 2.58: Sonata No. 3.

A further and lesser climactic wave is provided by the crescendo sustained through bars 224 and 225, and reaching its...
height with the mezzo forte at the beginning of bar 226. Bars 226 and 227 resemble bar 218 in their pattern of variation. It is always interesting to compare the variants of chords 8 and 14 (ex. 2.52, p. 158) because they share a top note, and in variation much more, but Tippett finds a convincing variety of ways to distinguish their different tonal functions (ex. 2.59). The final bars of the variation, 228 and 229, are an extended variation of its first bar, 211.

Example 2.59: Sonata No. 3.

The third variation is the freest, and seems to grow out of the triplet-semiquaver chordal progressions first heard in bar 212 of the second variation, though the music of right and left hands has become dislocated. Rather than continuing the sequences of four-part chords, the independence of the two-part writing in each hand is marked by overlapping phrases. Even the chords themselves are realized at different points in left and right hands. Only the two resting points (chords 9 and 11 of the initial sequence: ex. 2.52, p.158) and the end of the variation, see the independent parts coming together in a fuller
realization of the harmonies. The wave pattern established in the first
variation here endorses the independence of phrasing in the different
two-part progressions. All the other variations have a much clearer
sense of the initial chordal sequence; sometimes the chords emerge and
then disintegrate as in bar 203, or sometimes the whole variant is used
to build them up (compare bars 262 and 205, for example). But, in this
variation, except for the very last chord of bar 248, there is never a
complete statement of the appropriate transposition of the first
variation chord. By looking at ex. 2.60, it can be seen how Tippett
usually employs the basic harmony to inform a contrapuntal flowering;
comparison can also be made with ex. 2.58 (p.166), the climax point of
the same chord as embellished in the first variation, and with ex.
2.61c, which is a transposition of the initial eleventh chord up an
augmented fourth, and exs. 2.61a and 2.61b, its earlier versions.

Example 2.60: Sonata No. 3.

Example 2.61: Sonata No. 3.
The same blues progression is preserved at the climax of all elaborations of chord 11, and the whole progression is informed by the bitonality suggested by the harmony of ex. 2,61c (p.168). It is also interesting to note that this high point in each variation refers back to the tonal implications of the earlier variation. This enhances the effect referred to above, of having entered the movement while it was already in progress, and of the music's having derived from some unrevealed source (53). Another analogy could be arrived at by emphasising the cyclical nature of the variations, each mounting a step in the minor third progression. The fact that the first looks back to a minor third below the chord's initial statement implies that what it is that is already in progress, is an unending circular progression. The listener has, as it were, by chance, entered its orbit.

As the central variation of the central movement, this music explores the most profound depths of Tippett's mysteries. In discussing Socratic madness, Hölderlin's risk-taking (his divine madness could lapse into clinical madness) and Jung's emphasis on the relevance to the future of his notion that the artist explores "deep levels of collective unconsciousness", Tippett emphasises the present: "Yet part of the aesthetic emotion is an immediacy of appreciation, of the

(53) Perhaps this section of the Sonata owes a more direct debt to jazz-blues than can be established.
ineffable moment exactly present now" (54). Of all of this Sonata, it is this core variation which manifests "the ineffable moment". So far the listener/reader has been invited to compare parallel moments between variations. The most notable difference between this and the other variations is that, apart from the last chord which is an exact transposition up an augmented fourth of the sixteenth chord in the initial progression, the harmonies are never fully formed. Instead they inform whole swathes of contrapuntal movement. If Rudolph Réti had lived long enough to hear this passage he would have found an attractive irony in the fact that a set of harmonic variations should have at its heart a variation which meets all his criteria for "melodic tonality". His description of Debussy's melodies could well be applied to Tippett's counterpoint:

Debussy's melodies are not centred on the concept of the classical cadence, on the dominant-tonic effect with its leading-note. Yet - and this is the core of this most interesting phenomenon - there are always tonics sounding through, that is, focal points on which the melodic shape hinges (55).

(54) Michael Tippett, "The Artist's Mandate" in Moving into Aquarius, p.122.
(55) Réti, Tonality -- Atonality -- Pantonality, p.22. The underlining is added for emphasis by the present author.
"Focal points" is a very apposite description of the progression behind these variations. The third variation is a particularly strong example of line's capacity to represent the logic of harmonic progression, of tonal as well as melodic direction.

The whole movement is also a clear example of a new function suitably described as "tonic". It should not be assumed that this central point of reference is a single pitch, or chord, but rather an essential principle of design. It has already been shown in the analysis of the initial chord sequence (ex. 2.52, p.158) that this new tonality subsumes more than one traditional tonality. Indeed it yields a whole complex of relationships, predominantly major or minor mediant, but also flattened leading-note, major or minor supertonic and augmented fourth. And as the variations themselves move through a sequence implied by the "Grundgestalt", so the collection of tonics and tonal implications also moves.

Without knowledge of this Sonata's process of composition, what follows must be conjecture. Tippett has spoken of his method of composition and the importance to him of improvisation (56). Ian Kemp refers to his harmony and rhythm emanating from "the roots of his artistic personality" and is content to leave them, therefore, "without theoretical support" (57). Later he claims that such things are

(56) Tippett, Moving into Aquarius, p.22.
(57) Kemp, Tippett, p.97.
"organic" in Tippett but "synthetic" in Messiaen (58). It has proved doubtful to assume that Debussy's music is "organic" in the sense that it was wholly spontaneous and not worked out. That such a keen philosopher as Tippett should take refuge in that ill-defined notion, "the subconscious" (59), suggests to the present writer that there are things that Tippett can express through music which defy articulation in words. Tippett acknowledges the truth of Ehrenzweig's description of the half-articulated composition needing the half-articulated reordering of the listener. His music has been compared unfavourably with Britten's (60) in this respect. Britten's music to some would appear more fully achieved. But Stravinsky seemed to be suggesting something counter to this when he said: "To be perfectly symmetrical is to be perfectly dead" (61). Similarly, a complete working out of the "Grundgestalt" leaves nothing for the listener to reorder. It would be naive to suggest that the more finished the work the lesser the composer, but clearly different composers have different needs and Tippett would not tolerate a Brittenesque level of completion. The conjecture that this paragraph has begun to formulate is that the central variation of the central movement of Sonata No. 3 for Piano has

(58) Ibid., p.114.
(59) Tippett, Moving into Aquarius, pp.85-93.
(60) Arnold Whittall discusses the legitimacy of this comparison in The Music of Britten and Tippett, pp.1-20.
(61) Stravinsky and Craft, Conversations, p.20.
as its origin, improvisation, and rather than representing a working-out of some preconceived "Grundgestalt", that it includes at least some of the first expression of the idea, direct from his "subconscious".

The word "subconscious" rests more comfortably on Tippett's lips than it does in this thesis. In his recommendation of its use, is Tippett simply saying that music is a different semiotic system from language, and that the pleasure and absorption he experiences in improvisation is the most intense experience he has of thinking in the medium of music? It is a feature of original thought that it cannot readily be reordered or translated. This may seem to contradict, but in fact explains, an earlier statement that Tippett is an "unfinished" composer. Because there are so many features of Tippett's music that are recognisably traditional, it is easy to mistake this "unfinished" quality for lack of technique when comparing his output with Britten's, whereas his originality in many areas (certainly in tonality and line, but also in rhythm (62)) is of the same order as that which has led to accusations of lack of technique in artists like Cézanne or Satie.

(62) The most impressive part of Ian Kemp's admirable study of Tippett is his fascinating explication of Tippett's rhythmic originality: pp.97-117.

Wilfrid Mellers, in a lecture given at the West Sussex Institute of Higher Education in 1985, compared Tippett, Stravinsky and Ives and their debts to jazz, and concluded that Tippett preserved, more than the others, the true character of jazz rhythm.
Shedding outmoded technique is for some artists a necessary correlation of invention. But composers who shed everything from the past are those Christopher Small (63) can justifiably accuse of losing contact with the vernacular. Tippett has often acknowledged jazz as a vernacular which nourishes him (64), and there is no doubt that the third variation of the slow movement of Sonata No. 3 for Piano at one and the same time discovers new tonal territory, and preserves the "blues" tonality and linear "flight" of jazz.

The fourth and fifth variations, bars 249 to 267 and bars 268 to 286, are both closer to the initial variation's apparent reference to a definite sequence of chords. In the broken-chord figuration of the fourth variation only two notes, semi-tonal inflections to the Bb and the F, are added to the transposition of the initial chord. This simplicity of invention and clarity of texture come as welcome relief. It also seems to explain some of the movement's established characteristics. The emphasis throughout is on melody. A relaxed Tempo I, \( j = 60 \), (the previous variation's complex texture had been made even more exciting by a più mosso indication) and a sustained melody, maintain the 7/8 with occasional 2/4 additions of the other variations, with an apparently effortless spinning-out of line. Although the harmonic sequence is clearer, it is also more fully integrated into a single linear progression. The independent two-part writing of the left

(64) Tippett, *Moving into Aquarius*, pp.40 and 142.
hand against the independent two-part writing of the right hand in the third variation, has been described above as "contrapuntal flowering"; perhaps group polyphony or antiphony would have been a more accurate description of music where each two-part progression has the coherent and forward direction of a single line. Here, the semitonal inflections mentioned above seem to be necessary only to characterise the melody's blues note. Just as two-parts set against two-parts in variation three gave the impression of linear group-movement, so in this variation the focus is on one line with inevitable harmonic implications.

Example 2.62 (p.176) is an abbreviation of the fourth variation indicating the importance of blues notes in both axes. Stacked notes indicate sustained harmonies; stacked notes with added tails indicate triadic shapes in figuration. The upper notes with semibreve, minin and crotchet values indicate the prominent line which occasionally divides into two parts. The semibreve value given to notes in stacks indicates an harmonic root. Slurs indicate harmonic continuity across rhythmic divisions. Straight-lined brackets mark major/minor mediant and flattened leading-note relationships. Further blues notes are evident in vertical, and adjacent horizontal, groups of notes, but have been left unmarked for the sake of clarity. There are also many relationships that seem to extend the principle of blues notes. Bar 250 has a C# above a D as well as a C above a C#, for example, and many bars show semitonal minor ninth relationships working in a way similar to such major sevenths (or diminished octaves). All would be described as i.c. I by Babbitt, but in Tippett the minor ninth is still heard as
a keener dissonance than a major seventh, and its use does seem to heighten the expressive character of the central musical idea. If one compares exs. 2.62 and 2.52 (p.158), the harmonies of 2.62 appear to be a simplification of the initial set.

Example 2.62: Sonata No. 3.
The last variation emphasises a different feature of the progression: stacked fourths. Ian Kemp writes interestingly about Tippett's use of "fourths chords" (65), claiming again that his approach is "intuitive" and that he can use them to mean different things, from "angular abstraction" to "shimmering tenderness". It is as if the last two variations extract from the tonal sequence the essences which first combined to make it. The fourth variation reveals that the sequence was linear: the harmonies it employs are a luxurious extension of its soaring Afro-American cantilena. The fifth emphasises the harmonic. Whereas the fourth variation emphasised blues notes, the fifth prefers the clarity of i.c. 5. The only line it employs is the progression already observed in ex. 2.52 (p.158), plus brief references to the kind of embellishment used in the second and third variations in its treatment of the ninth and eleventh chords. For the rest, stacked fourths and fifths, and triads (some with ninths or sevenths) prevail. The chosen notes of each variant build in pianissimo "shimmering" trills before alternately falling or rising through an octave scale. A pattern of upbeat semiquavers (from the seventh chord also triplets of demisemiquavers) passes from hand to hand, to mark the harmony's octave passage.

The extensive use of parallelism while repeating, and therefore emphasising the character of, a particular harmony, makes plain the linear quality inherent in the initial sequence, so that this final

(65) Kemp, Tippett, p.96.
variation can be reduced even further than the former (ex. 2.63).

Example 2.63: Sonata No. 3.

The line that results is so attractive and has such a definite homogeneity of character that it would seem to point to some "all embracing principle of correlation based upon an a priori arrangement of our tone material" (66). But if there is such, it resists discovery. Certain observations can be made: there are lines within lines, sequences within the overall progression. Look first at the held notes: they begin by widening (ex. 2.64a and b)

Example 2.64: Sonata No. 3.

and then there is a sequence of major or minor sevenths (ex. 2.65), and finally a sequence of major seconds (ex 2.66).

Example 2.65: Sonata No. 3.

Referring to the twentieth-century convention of completion of the chromatic spectrum, the twelve notes are spread out across the held notes of the progression; the twelfth, B natural, is reserved for the last chord. If one were to number all the notes in ex. 2.63 (p.178) as if they were notes in a series — 1 2 3 4 5 6 7 1 2 3 4 8 9 6 10 5 3 6 10 7 4 5 2/4 2/11 1 7 3 11 2 9/12 etc — it is apparent that the diatonic character of lines recognised in the first movement is a feature of the deep as well as the surface structures of Tippett's music. Although, as one would expect, eventually all twelve notes are used, it is some time before they are, and on the way to using them up, the line lingers in specific triadic areas. Like the held notes, the short notes follow patterns and sequence (ex. 2.67).

Example 2.67: Sonata No. 3.
This is to say nothing more than that sequence is an important compositional principle for Tippett. Tippett's use of sequence is both more frequent and less exact than Stravinsky's.

Another notable difference between Tippett and his "lover" (67), Stravinsky, is Tippett's attitude to the semitonal leading-note-type progression. The slurs in ex. 2.63 (p.178) mark all such relationships. As can be seen the sequence is especially rich in semitonal movement. Only at the ninth and eleventh chord pauses does the linear force of semitonal movement cease. The final "cadence" is exceptionally rich in semitonal progression. To characterise three very different composers, one could say that Stravinsky avoids the traditional semitonal lead, Schoenberg makes every note a leading-note and Tippett can make any note a leading-note. Of course, any note can be a leading-note in the tonal system, but what is being described here is not conventional modulation. According to Réti (68), in "melodic tonality" the tonic can move. In Tippett, the tonic, like the spirit, moves. This is also an accurate way to describe the large-scale transpositions of the first movement. In the search for an "all-embracing principle of correlation", this will have to do, though there follows further explanation of how the coherence of tonal language is achieved.

(67) Tippett, Moving into Aquarius, p.85.

(68) Réti, Tonality - Atonality - Pantonality, p.24.
Just to compare the first few bars of the first movement and the last few bars of the second will underline the consistency of character of Tippett's idiom (ex. 2.68). The frequency of triadic shapes, fourths chords, seventh and ninth chords, allows the expressive power of traditional tonality to be tapped, and yet secures freedom from some of its conventional limitations. There even seems to be a reminder of the first tonic of the Sonata in the closing bars of the second movement.

Example 2.68: Sonata No. 3.

The final chord of the slow movement is made up of notes provided by a sequence of fourths -- F# B E A D G. Fourths informed the left hand figuration at the outset of the Sonata, and fourths are
immediately prominent at the beginning of the third movement, Allegro energico. The third movement also seems to inhabit the same tonal world and textural world as the first. Tippett’s own note on the Sonata emphasises its unity, "a single unbroken piece", and its use of traditional form: sonata-allegro, variations and a ternary toccata.

The essential stimuli for the Symphony – ideas of contained and projected energy, continuity and discontinuity – are translated into a different duality in the Sonata, that of the pianist’s hands ‘and their possible perceptible independence in one compositional direction and aural unity in another’ 69.

Arnold Whittall draws a parallel with the Symphony No. 3:

The apparent absence of quotation makes the work a no less effective musical tribute to Beethoven than the Symphony No. 3 or the String Quartet No. 4. Above all, the virtues of integration are now overt. Collage has had its day. Its ‘aperient’ qualities can still be acknowledged, and just as the exclusiveness of diatonicism is no more appealing to Tippett than the intolerance of organized religion, so the unambiguous unity of Baroque counterpoint is no more appealing than the fragmented indeterminacy of the once-modern avant-garde, whose ‘motionless’ measures so struck

(69) Tippett, Sleeve notes, Philips 6500534.
his at the 1965 Edinburgh Festival (70). The process of discovery through transformation is all in music, just as the process of individuation is all in life. Tippett’s musical discoveries can most effectively be explained through their relationships with each other, rather than through parallels with any other premises (71).

Because of the brevity required in musical commentary in book form, both Whittall and Bowen (72) associate projection with the outer movements and containment with the inner: independence of the hands in the outer movements and unity in the inner. As has been seen, especially in the independence of left and right hands and quasi-improvisatory invention, in what was referred to as the third variation of the slow movement, this is not always so. The first movement had its periods of harmonic stasis, and the last makes dramatic use of interpolations of homophony in what is generally a contrapuntal movement. In other words, all movements share “contained and projected energy”.

(72) Ibid., p.262.

Bowen, Michael Tippett, p.123.
All three movements share further common features. The reference back to the first movement at the beginning of the third is made obvious by the reuse of the initial left hand notes. An even bolder reference back, this time to the minor third progression of the slow movement, is given in the third movement's repeated right hand octaves (bars 323 to 337, 367 to 381 and 454 to 468).

In Chapter One a reference was made to Stravinsky's tendency to eschew diminished triads, diminished seventh chords and any harmony that had a "strong leading quality" (73). A claim has already been made for Tippett's use of leading-notes to propel the forward movement of lines (p. 180). It would appear that a correlation of this feature of his tonality is a free use of the very harmonies, as chords or progressions or figuration, that Stravinsky felt the need to suppress. Not only is the minor third progression significant in the second and last movements, but its shape informs much of the prominent thematic material in the first movement. A limited number of examples of its manifestations, especially where it builds into diminished fifths, in the first movement, is given in ex. 2.68 (p.181), but sufficient to confirm that its use contributes to the work's "virtues of integration" (74). Example 2.68f is a reduction of the harmonic progression from

(73) Wolterink, Harmonic Structure, p.53.
bar 87 to 89. The octave division into major thirds observed in Debussy's *Fêtes Galantes* and into minor thirds in Stravinsky's *Agon*, combine in this progression, and again in bars 183 to 186; the sequence of chords rises through major thirds but the harmonies themselves are diminished triads with the fleeting addition of minor sevenths.

Discussing the similarity of first and last movements, Arnold Whittall notes:

No evident rules with regard to the vertical alignment of pitches seem to be in force, and this might seem to confine that such interval control is not essential to all music, but only to functionally tonal structures; but the technique of variation itself, involving repetitions, ornamentation, displacement, and extension, carries the burden of sense which was once shared with the grammar of tonal progressions (75).

In so doing Whittall would appear to break his own rules. He could "more effectively explain Tippett's musical discoveries through their relationships with each other" (76) rather than looking for obedience

(75) Ibid., p.269.
(76) Ibid., p.272.
to rules of "functionally tonal structures" or "the grammar of tonal progressions". He admits that "much interval control is not essential to all music" but does not appear to realize that this does not necessarily mean that "no . . . rules" apply. The statement is, of course, qualified with the words "evident" and "seen". Even so, it would seem to imply that lack of obedience to traditional rules is evidence of lack of control in the vertical axis. The passage is untypical of the work of Whittall in that it seems to beg so many questions. What are "functionally tonal structures"? Could not the consideration of the function of minor thirds and fourths chords in all three movements (above) be described thus? What is the "burden of sense" now detached from "the grammar of tonal progressions"? Does Arnold Whittall believe that "the grammar of tonal progressions" is fixed or was fixed for three hundred years? Or has he observed that "like language, tonality continually makes itself, even when we are not listening" (77)? If something of this grammar is preserved, has something else taken the place of what has been given up?

It is to Tippett's credit that his musical language can be at once intelligibly coherent and quasi-improvisational. If one were to write a pastiche of Tippett's music of this period, it would be essential to capture this illusion of lack of pitch control in vertical alignment,

(77) Norton, Tonality in Western Culture, p.9.
an illusion only possible because it builds on the listener's knowledge of the past. Certain aspects of the tonality of the past are still generative principles for Tippett. The sonata-allegro of Beethoven has been a life-long preoccupation, and it is typical of tonal development in the examples chosen in this study, that one principle of correlation can be preserved, at least in part, within another. Tippett's music, as has already been observed, underwent a major transformation after he had heard Agon in 1958. What had flowed was now abrupt, but something of the warmth and fluidity of his earlier music was preserved in the new world of discontinuities. From the Symphony No. 3 his early obsession with Beethoven is reasserted, but the Piano Sonata No. 3, while achieving an overall unity comparable with the Beethovenian model, also preserves the still fresh quality of his music from the King Priam period: alert, disjunct, and surprising.

Like the first movement, the last has the quality of being already underway when we first hear it. And, again like the first movement, this is achieved by immediate modulation and a free use of sequence. The second movement ends with a cadence that provides no sense of full resolution, though mediant progression in the bass is by now familiar, and the semitonal relations between last and penultimate chords have all the inevitability associated with them elsewhere in the work (exs. 2.50, p.150, 2.52, p.158, 2.53, p.160, 2.56, p.165, 2.63, p.178, 2.64, p.178, and 2.67a, p.179). One may compare this with the final cadence.
(ex. 2.69b) where the semitonal relations are even more obvious, but
where the bass proceeds from flattened leading-note to tonic and
achieves a full cadence with maximum simultaneous effects of "Dorian"
and leading-note-type resolution. That such a resolution is possible
may well have something to do with long-term memory, the end of the
slow movement coming to rest as it does, on the dominant of the last
movement's hard-won prize, A major.

Example 2.69: Sonata No. 3.

Although the second movement's conclusion is an imperfect cadence,
and although the pause between movements is slight compared with the
whole bar lunga pause between first and second movements, the beginning
of the last movement comes as a surprise. Its energy is almost
alarming. The texture, though familiar from the first movement, could
not be more different from the luxuriously harmonic final variation of
the second movement. The dynamic is at once aggressively forte. Ian
Kemp (78) again finds the appropriate analogy:

The dominant impression remains of tumult, of someone trapped in a cage frantically
rushing from one side to the other and then banging on the sides in a vain attempt to
get out.

The overall form of the movement is

\[ A \rangle (\text{bars 287-352}) \quad A \langle (\text{bars 352-417}) \quad A \rangle + (\text{bars 418-487}) \]

where \( A \langle \) is a palindrome of \( A \rangle \) and where \( A \rangle + \) is an exact repeat of
the first fifty-five bars of \( A \rangle \) with an added coda.

Certain details of the movement, the sequences of minor thirds in
repeated octaves and the final cadence have been discussed already.
Further comparison can be made between first and last movements. Kemp
(79) is very definite about the tonal scheme of the first movement: \( B \) is
the tonic, the exposition returns to \( B \), the recapitulation begins in \( B \)
and the unorthodox modulation of the recapitulation is justified by its
final chord's resolution into the second movement. And he hears the
final movement as "a logical consequence of the first movement" but can
only sense the relationships because "Tippett's variation techniques
are too idiosyncratic to yield to analysis".

(78) Kemp, Tippett, p.461.
(79) Ibid., p.458.
But a less clear-cut analysis of the first movement's tonality (p. 146) provides some points of comparison. The opening bars of the first movement suggested tonal independence to this listener, a progression from B to E to B in the right hand and from "Lydian" D to "Dorian" F# to B in the left. B is undoubtedly established in the third bar and in its later repetitions, but it is established only after the modulating bitonalities given above, and is followed immediately by more. The pattern of tonal foci at the beginning of the last movement shows a similar mix:

<table>
<thead>
<tr>
<th>bar 1</th>
<th>bar 2</th>
<th>bar 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.H.</td>
<td>E — — A</td>
<td>F — — G</td>
</tr>
<tr>
<td>L.H.</td>
<td>Lydian D — — G — — Ab — — Bb</td>
<td>Dorian E — —</td>
</tr>
</tbody>
</table>

Compare the first movement:

<table>
<thead>
<tr>
<th>bar 1</th>
<th>bar 2</th>
<th>bar 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>R.H.</td>
<td>G — — E</td>
<td>— — B</td>
</tr>
<tr>
<td>L.H.</td>
<td>Lydian D — — Dorian F# — — B</td>
<td></td>
</tr>
</tbody>
</table>

It will be remembered that the slow movement ended on a "Dorian" E chord made up of a chain of fourths — F# B E A D B — a chord which would seem to function like a dominant for the final resolution of the Sonata. It also contains the B minor triad, and the trills which bridge the third and fourth bars of the last movement are B and F#. The full B tonality of the third bar of the first movement is paralleled in the
last by the B and F♯ trills of the prevailing E mode. Both movements, at a similar point, have a harmony shared in right and left hands, an occurrence unusual enough (pace Whittall) for it to be an important tonal statement. To interpret the tonal focus of the first movement as prevailingly B (pace Kemp) or of the last as prevailing "Dorian" E, would be to raise what are only shadows (but all the more tantalising for that) of old tonal truths, to positions they do not hold here. It is notable, however, that the moving tonics of the second movement come to rest on a chord which is made up of the key notes of a whole range of tonics that are prominent in the outer movements, and, indeed, that the very last chord gives a full resolution in A but adds B and D.

Any more exact parallels would destroy the quality already noted in Tippett's music, and variously called spontaneous, improvisatory, intuitive, fluid or direct from the subconscious, (as anyone who has tried to transcribe an actual improvisation knows, it is difficult to capture such a quality in print), but there are other tonal parallels between the outer movements. The sequence of falling ninths (exs. 2.46 and 2.46b, p.141) has a parallel in the last movement (ex. 2.69c, p.188); a similar pattern is treated similarly -- grand contrary-motion flourishes. The opening figures of the first and last movements both repeat in their sixth bars. There is a parallel between the two movements' use of trills. It would provide further opportunity for comparison between the outer movements' tonality to extract these
prominent tonal statements of notes sustained by trills (ex. 2.70a and b). Related, of course, to the sequence of minor thirds already mentioned, perhaps the frequency of i.e. 6 is the most obvious common feature, but there is enough total coincidence of pitches to reveal one element in the "feeling" that one has when listening to the final movement, that it is "a logical consequence of the first movement" (80). Of the sixteen intervals that make up the sequence of the last movement's section A and its palindrome, ten have at least one pitch in common with the sequence from the first, four have both pitches in

Example 2.70: Sonata No. 3.

(80) Kemp, Tippett, pp.456-461.
common and three others are pairs of i.c. 6. Both the first and second
movement trills in total yield twelve i.c.s 6. Both sixteen dyad
sequences of ex. 2.70 (p.192) have enough features in common with the
sixteen chord basis of the slow movement (ex. 2.52, p.158) to invite
comparison here too, but not enough to merit further commentary.
Although the overall proportions of the outer movements are similar,
the relative lengths of internal sections are dissimilar:

First movement \( \frac{1}{4} = 132 \) (\( \frac{1}{4} = 88 \))

\[ \begin{array}{ccccccc}
A & B & A1 & C & A2 & D & A3 \\
\end{array} \]

\[ \begin{array}{cccc}
B2 & A4 & C2 & A5 \\
134 & - & 149 & 150 & - & 166 & 167 & - & 175 & 175 & - & 191
\end{array} \]

Last movement \( \frac{1}{4} = 138 \)

\[ \begin{array}{cccc}
A > & A < & A >+
\end{array} \]

\[ \begin{array}{cccc}
287 & - & 352 & 352 & - & 417 & 418 & - & 489
\end{array} \]

Bars 64 and 352 have this much in common: they both emphasise harmony
which could be interpreted as the dominant of their movements’
strongest tonic. Bar 64 is strongly F# major; bar 352, while
reemphasising the E and D of the final A's dominant seventh, also
repeats the B which is the bass note of the penultimate chord in the
final modal cadence.
The importance of detail in the last movement cannot be exaggerated as all the material is heard three times — the second time a palindrome of the first. It is necessary to pick up the commentary at the point at which the intervals between trills attracted comparison with the first movement. The intervals between the hands on accented notes (any of the four beats in a bar), from bar 317 to 327, are all in either i.e. 8, 2 or 1. Would this constitute a rule for Whittall? If not, then surely the sequence that follows, from bar 323, is logical enough? (A reduction of bars 323 to 337 is given in ex. 2.71.)

Example 2.71: Sonata No. 3.
Whether or not the sequences of notes in the left hand begin with an i.e. 1 or 2 and however quickly they span an i.e. 6, the relationship with the previous section's intervals is audible, and the progression towards the climax of repeated chords (ex. 2.72), relentless.

Example 2.72: Sonata No. 3.

Excluding the Bs onto which the diminished seventh progression would seem to resolve, the chord (ex. 2.72) contains one i.c.1, two i.c.s 2 and one i.c. 6. The contrary motion arpeggiated ninth chords resume their waves of contrary motion, eventually to close in on the D/E and G/C# dyads referred to above. The coda interrupts this process with another repeated chord which combines the tonic triads of B, A and E. The G bias of the earlier repeated chord is hoisted sharpwards. A free transposition down a major seventh of the ninth tetrad figuration that preceded the B/A/E chord brings back the chord (ex. 2.72) which leads to a final flourish and the cadence on A with added second and fourth. The repetition of figuration that provides the penultimate harmony of the cadence (ex. 2.69b, p.188) reminds one of the moment of repetition on the eleventh chord of the slow movement's variations. There, after the repetition, the music drooped into flattened blues notes; here, the process is reversed. The modal cadence has the effects of interruption, tierce de picardie, and an abrupt realisation of the main tonics of the whole Sonata.
The more closely one looks at Tippett's Piano Sonata No. 3, the more one becomes aware of the "rules" that provide the music's coherence. While the harmonies are rarely single tonic triads, octaves, major thirds and perfect fifths, the lines are full of triadic shapes, often arpeggios of seventh or ninth chords, and a very consistent use of varied sequence or repetition. These procedures carry what Whittall describes as "a burden of sense". But the burdens, if such they are, would seem to be lightened by Tippett's far from random approach to harmony and tonality. Lines are freed to fly where they will: freed from restrictive local harmonic associations, they follow the foreground logic of varied sequence or repetition while such basic tonal progressions as the minor thirds, large-scale transpositions, palindrome and moving tonics, provide a subtle combination of licence and security.

Tippett still preserves enough of the old Beethovenian values to establish himself as one of the most important of contemporary advocates of the humanist tradition. Of course, if he were to preserve more of it, his music would be less potent for us. The essence of this humanism is that tradition should live.
CHAPTER THREE

Conclusion

Tradition is generic; it is not simply 'handed down', fathers to sons, but undergoes a life process: it is born, grows, matures, declines and is reborn, perhaps. The stages of growth and regrowth are always in contradiction to the stages of another concept or interpretation: true tradition lives in the contradictions 'Notre héritage n'est précédé d'aucun testament.' (René Char) (1).

This quotation encapsulates the present author's position in relation to the works analysed in Chapter Two. He has lived with those works and they have continued to reveal themselves to him, and continue to inform his musical invention. His song-cycle, Tree, Stone and Water, written in 1987, owes something to all three works. Debussy's organisation of all the songs of Fêtes Galantes Book II around two musical symbols has a parallel. There is a ground plan which comprises chains of fourths, noted in Agon and Tippett's Piano Sonata No. 3, an octatonic scale also to be found in Agon and a modal cadence of the kind to be found in all works analysed, all evident in the opening of the vocal line of the first song. What trick of the strengthening

(1) Stravinsky and Craft, Memories and Commentaries, pp. 126-127.
Example 3.1: What trick of the strengthening light?

The first harmonic move in the song from a "Lydian" Gb first inversion to a "Lydian" E second inversion is also significant throughout the cycle.

There are nine songs in the cycle and the composer attempts to give them each a discrete character while unifying them with specific references to each other as well as common derivation from the ground plan. The final song, Only Bones, is most liberal in its quotation of others. In this way it provides a summary of the whole work. Also, rather as Debussy's cadences on the notes of the augmented triad symbol provide a final fulfillment, the final song brings together the elements of the ground plan in a more intense way than previously. The final resolution (the work begins and ends on Bb) is achieved as a result of the whole work's tonal argument. The freedom of repetition observed in Tippett, some exact, some transposed, some
modified in other ways, is an important feature of the cycle's construction. Sequence, observed in all three works analysed, and near sequence are also used throughout the cycle. This can be seen in the following example from the third song, *As it falls the tree squeals* (ex. 3.2).

Example 3.2: As it falls the tree squeals.

The example also shows the composer's tendency to use up all twelve chromatic notes in a comparatively short span, compared with Tippett that is, if not Stravinsky. Elsewhere in the cycle, such as in the most diatonic of the songs, *Sea-wrack and stones in still pools*, a single line might contain all twelve chromatic notes contiguously without attempting anything like serial organisation (ex. 3.3, p.200). The sixth song, *Something happens to a dry wall*, makes much use of the "Lydian" harmony so prominent in *Agon* and so expressive in the Tippett Sonata. It is combined with a sequence of chords which emphasises mediant relationships and which uses up most of the notes of the
Example 3.3: Sea-wrack and stones in still pools.

Example 3.4: Something happens to a dry well.

The "Lydian" fourth and "Mixolydian" seventh provide the emotional climax of the song but by the end they have become exhausted and
resigned, and are enclosed in a kind of perfect cadence (ex. 3.5).

Example 3.5: Something happens to a dry wall.

The final chords of Agon's movements give a microcosm of its tonal plan. The same could be done for Tree, Stone and Water. The cadence at the end of the cycle's first song has a chain of fifths plunging to a DbDb which forms a mediant minor for the final single Bb (ex. 3.6).

Example 3.6: What trick of the strengthening light?
The songs are attached and so the tonal starting point for one
song is always the conclusion of the last. The texture of the
accompaniment of the second song alternates a canon where the rhythmic
character of each line is different (ex. 3.7)

Example 3.7: The tree is a slow fountain.

and passages of bichordal homophony (ex. 3.8).

Example 3.8: The tree is a slow fountain.

It modulates throughout and comes to rest with a modal cadence on C
coctaves.
Example 3.9: As it falls the tree squeals.

The third song ends with another modal cadence on G, a full triad with an added C# (ex. 3.9), the fourth on E unison (ex. 3.10),

Example 3.10: Where shall we rest cry stones.
Example 3.11: Under grass the living rock.

the fifth on an octave F (ex. 3.11), the sixth already quoted above on a full C with an added F# (ex. 3.5, p.201), the seventh on an octave A (ex. 3.12), the eighth on a dominant ninth on B (ex. 3.13),

Example 3.12: Burgling and chortling the smack of the tide.

Example 3.13: Sea-wrack and stones in still pools.
and the last, after some chromatic equivocation not too distant from Stravinsky's in Agon (ex. 3.14), comes to rest with a cadence that reverses the one at the end of the second song to achieve a final Bb.

\[
\begin{align*}
&\text{Example 3.14: Only Bones.}
\end{align*}
\]

The whole pattern emphasises the Bb-E "Lydian" fourth relationship evident in bars 3 and 4 of the first song quoted above (ex. 3.1, p.198) and evident in lines and progressions throughout the cycle. The mediant relationships G/E and C/A also have parallels in the linear and harmonic details of the work, such as the final cadence to the first song, or the use of octatones, both referred to above.

A Sonata for Piano Duet, In Homage to Stevie Smith (died March 1971), commissioned for the Chichester Festivities and premiered by Sophie and Zoe Rahman, pianists, and Rebecca Rahman, reader, was written in March 1989. It has four movements: The Bereaved Swan, (Andante); When the Sparrow Flies, (Moderato quasi: Allegretto); The Cock and the Hen, (Thema e variazione); and Who killed Lawless Lean? (Adagio/Vivace/Adagio). The Sonata tries to capture the extraordinary combination of wit, eccentricity and desolation in Smith's poetry and to some extent the form and character of each movement is suggested by
the poem read before it. Bichords, a mixture of modes, and a non-serial
use of a series are used to unite the work and to create the range of
emotional response elicited by the poems. A quotation from the second
movement will illustrate the simple contrapuntal writing which conveys
the innocence of the Sparrow and the mediant-related bichords which
suggest the passion from which the Sparrow's flight at the end of the
song represents escape rather than release (ex. 3.15, p.207).

The final movement has an example of the author's not infrequent
use of series (ex. 3.16, p.208). As in Memnon the use of the series is
wholly non-serial. A tendency to use the whole chromatic spectrum has
already been shown to be a feature of the author's work. His admiration
for Agon and its incorporation of serial writing has been a direct
stimulus for such experiment, although the simplicity of the melody set
against the twelve-note line, inspired by the flattened seventh and
sharpened fourth found in various manifestations in the works analysed,
makes the wit of this movement rather more obvious than Stravinsky's.

The coarseness of the representation of the insensitive Parrot,
who screams in the garrett while the "Head of the Family" lies dead in
a room below, eventually softens into melancholy and the final cadence
has a chromatic contradiction which, like the the vocal line at the end
of Tree, Stone and Water is a momentary reference to such procedures in
Stravinsky (ex. 3.17, p.209).
Example 3.15: When the Sparrow flies.
Example 3.16: Who killed Lawless Lean?
Example 3.17: Who killed Lawless Lean?
In 1990 the author was commissioned by the Wren consort to write a piece in a popular idiom for the unusual combination of soprano, baritone, two trumpets and piano. He chose to set four poems by Charles Causley: 1. Hawthorn White; 2. Nursery Rhyme of Innocence and Experience; 3. The Life of a Poet; 4. Timothy Winters.

Both the limitations of the commission and the character of the poetry demanded a simplicity of style. As in many of the author’s works, compositions for schoolchildren and the like, he is concerned to write music which is readily performable and appealing. At the same time he looks for opportunities to employ some of the devices learnt from the works of Chapter Two.

From the first song comes a passage of gentle bichords and a sequence of chords combining triads and fourth chords (ex. 3.18, p.211). In the second song a child grows up while a sailor who had promised him various gifts is away at sea. The child’s bewildered response to the gifts allows the composer to employ a sequence of chords based on the octatone most favoured by Stravinsky. To distinguish the sailor (baritone) from the child (until the end, soprano) and from the narration (both baritone and soprano), the sailor sings in folk-song-like modes (ex. 3.19, pp.212-214).
Example 3.18: Hawthorn White.
Example 3.19: Nursery Rhyme of Innocence and Experience.
Example 3.19 cont.
Example 3.19 cont.
Memnon, the piece submitted together with this study, is a musical score for ballet. The ballet is intended to be abstract but the music takes as its starting point the now discounted fable of Memnon's statue (2) which when broken gave a musical sound at sunrise. This offered an image of destruction and renewal which had some parallel with the discussion of the development of tonality and line in the accompanying study. The work's tonality and line frequently employ traditional procedures though often breaking associated sets of rules to find others, one hopes, more eloquent. Each of the movements is given a title which again affords a starting point:

1. Memnon Frangens Memnon breaking
2. Memnon Cantans Memnon singing
3. Memnon Somnians Memnon dreaming
4. Memnon Cantans Memnon singing
5. Memnon Anans Memnon loving
6. Memnon Cantans Memnon singing
7. Memnon Sonans Memnon sounding
8. Memnon Cantans Memnon singing
9. Memnon Aspirans Memnon striving
10. Memnon Cantans Memnon singing
11. Memnon Tonans Memnon thundering

(2) Robert Graves, in The Greek Myths (London, 1955), says that Memnon has been confused with Mnenon in whose honour the famous black singing statue was constructed at Thebes.
The titles were suggested either by the fable itself or by association with night-time. Aspirans alone does not obviously fit this description. The fable's notion that something had to be broken before the musical sound could be released at sunrise implied, for the composer, a parallel with the efforts of composition. The series of sunrises establishes a pattern of tension and release, most obviously represented by the alternation of full orchestra (odd numbered movements) and the two pianos alone (even numbered movements); the orchestral movements explore a more complex idiom and are relieved by the simpler music of the two pianos alone. As the sequence progresses this pattern gradually changes: movement 5 is followed by an equally vigorous variation, though necessarily smaller in scale; movements 7 and 8 are equally restrained, and movement 10 reverses the original pattern, sustaining the only occasionally violent efforts of movement 9 and anticipating the thunderous final movement. It was thought that by juxtaposing three comparatively calm movements -- 7, 8 and 9 -- a greater variety of mood could be achieved than by maintaining the initial pattern of contrasts.

The form of the whole piece is indebted to four scales based on the augmented tetrachord -- C D E F# G A B C# -- and its transpositions on Eb, F# and A (ex. 3.20 a - d, p.217). These scales bear no obvious connection with a living vernacular. Indeed the fact that they persistently supply augmented octaves denies the universal truth of the octave referred to in the study. It is the augmented tetrachord itself which could be said to relate to Lydian mode folk-songs which are not rare in these islands, though the augmented tetrachord's associations for the composer are many. The Malo, Malo song from Britten's Turn of
the Screw, the double-leading-note cadences from Machaut's Mass and the numerous "Lydian" references of Chapter Two are very much more potent than any folk-song. The process of combining two augmented tetrachords was suggested by Stravinsky's combination of two minor tetrachords. The first two notes of each scale provide the Stravinsky octatone, a pattern of notes much admired in the work of Messiaen as well as Stravinsky, and used extensively in the Cantans movements but also to a greater or lesser degree in all the others. The only direct borrowing from a living vernacular comes in the rhythms of faster passages of Meanon Sonans (movement 7) which are based on a sub-Saharan dance (3).

Example 3.20: Meanon.

(3) The Adzida dance from the Ewe tribe in Ghana, introduced to the author by Mwangala Akapelwa during her year as research assistant in the Music Section of The West Sussex Institute of Higher Education, 1988-89.
Two twelve-note series are used. Both take three notes from each of the four possible transpositions of the scale (exs. 3.21 and 3.22). Example 3.21 is used in the odd numbered movements only and ex. 3.22 primarily but not exclusively in the even. As the work progresses the odd numbered movements make increasingly obvious use of the ex. 3.22 series. Both series are treated freely, often singly as melodies where the harmonic writing is informed by the augmented tetrachord scales. A substantial part of the theme of the Cantans movements is the series (ex. 3.22) and much of the rest of it is suggested by the Stravinsky octatone. The thirds of both series are given extra prominence. Transposition of the series in ex. 3.21 affords thirds identical to those in ex. 3.22. The E/G, minor third, eventually prevails (the first two notes of ex. 3.22 in retrograde).

Example 3.21: Memnon.

Example 3.22: Memnon.

All this discussion of series gives a false impression of the work which is far from being serial. Occasionally the notes of the orchestral movements are determined by various versions and transpositions of the series, but the harmonies they suggest and their relationship to the augmented tetrachord scales are more significant.
The intervals around the central minor third (D/F) of ex. 3.21 (p.218) are the source of the tonal organisation of the whole work:

\[
\begin{array}{cccccc}
4 & 5 & 6 & 7 & 8 & 9 \\
Eb & E & D & F & G & F#(Gb)
\end{array}
\]

The Eb and Gb suggest the generally Eb minor tonality of the Cantans movements and the E and G give the less evident but ultimately achieved C major tonality of the whole work. The horn arpeggii derived from the augmented tetrachord scales keep offering the Eb minor/C major alternatives until the closing bars of the final movement. Melodically and harmonically, thirds are the basis for much of the invention, inevitably, as the sequence of the scales of ex. 3.20 (p.217) rise in minor thirds. There is an irony which gives pleasure to the composer, but which may not be of discernible significance to the listener, that the series used exclusively in the C (odd numbered) movements could be heard to resolve in Eb, and conversely the series of the Eb (even numbered) movements can be heard to, and eventually does, resolve in C. There is one obvious meeting of C major and Eb minor harmonies, bar 897, where the thirds already referred to join with another interval prominent in the work, the major ninth, to provide something close to a quotation in anticipation of movement 10.

The relationship of one movement to another is generally provided by their shared use of the octatone and augmented tetrachord, but there are some other borrowings, such as bar 897. The last movement in particular borrows from the first, the seventh, the ninth and the
Cantans movements. Further links are suggested by groups of notes taken from the augmented tetrachord scales such as in ex. 3.23, where a specific series of chords can be seen to be the source of much of the melodic and harmonic writing in Memnon Amans (movement 5).

Example 3.23: Memnon.

Some of the final movement’s references to others are given in retrograde, some references are partially in retrograde, some are varied or transposed and some are repeated exactly. The first example of such extensive use of retrograde occurs in Memnon Aspirans (movement 9), but it is not intended to suggest a reversal of the striving; on the contrary it strives for a Machaut- or Eliot-like discovery that “Ma fin est son commencement”. The “added” oboe solo goes on after the retrograde is complete to reach the D/F third between the opposed tonal centres.

To conclude there is a need to summarise. But to summarise characteristics shared by Debussy, Stravinsky, Tippett and Waite is inevitably to reduce the subtlety evident in the detailed analysis of Chapter Two and whatever subtlety may be perceptible in Memnon. It should be evident by now that there are many shared characteristics and it should become evident that there are many other characteristics of Memnon which represent a response to or development of the procedures discussed in Chapter Two.
The organisation of pieces around tonal ground plans, modes, octatones, mediant relationships, fourths chords, the use of series in a tonal context, the use of retrograde, repetition and sequence, an openness to the influence of jazz and various folk musics (including, in Memnon, the music of Ghana), an awareness of the relationship between proportion and tonality — are all features of the works analysed which have informed the author's composition. That the music of Debussy, Stravinsky and Tippett remains as vital and fresh for the author as when he first heard it means that they still have much to teach him.

It is the richness of tonal function in contemporary music which has required specific analysis of certain works and which now should be heard in a performance of Memnon.
MEMNON

an abstract ballet for eight dancers

Memnon was the son of Tithonus and Eos.

It was once thought that his broken statue gave a musical sound at sunrise.

<table>
<thead>
<tr>
<th>Memnon Frangens</th>
<th>Double Pas de Quatre</th>
<th>4 men, 4 women</th>
<th>1</th>
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<tr>
<td>Memnon Cantans (theme)</td>
<td>Pas de Deux</td>
<td>1 man, 1 woman</td>
<td>30</td>
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<tr>
<td>Memnon Somnians</td>
<td>Pas de Trois</td>
<td>3 men</td>
<td>31</td>
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<td>Memnon Cantans (var.1)</td>
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<td>Memnon Tonans</td>
<td>Double Pas de Quatre</td>
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Strumenti dell'orchestra

3 Flauti grandi (3. anche Ottavino)
2 Oboi
1 Corno inglese
2 Clarinetti in Sib
1 Clarinetto basso
2 Fagotti
1 Contra fagotto
4 Corni in Fa
2 Trombe in Sib
2 Tromboni
1 Tuba (Tenore in Sib)
Timpani

Batteria:

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<td>Xilofono</td>
<td>Vibrafono</td>
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2 Pianoforte

Archi

Tutta la partitura è scritta in Do
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THROUGH ANALYSIS OF
DEBUSSY'S FETES GALANTES BOOK II,
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Submitted for the degree of
Doctor of Philosophy
at the University of Leicester

by
Michael Waite B.Mus.,M.A. (Birmingham)
Department of Music
University of Leicester

March 1994
Memnon, a musical score for ballet, together with a study of twentieth-century tonality and line through analysis of Debussy’s Fêtes Galantes Book II, Stravinsky’s Agon and Tippett’s Sonata No. 3 For Piano

Memnon is an abstract ballet for eight dancers: four female, four male. It has eleven movements scored alternately for full orchestra and two pianos. The composition and accompanying study share a concern with tonality.

The purpose of the study is to illuminate aspects of the compositional procedures of Memnon, specifically its tonality and line, and to relate Memnon and other compositions by the author to contemporary music.

The method employed is to analyse three works, Debussy’s Fêtes Galantes Book II, Stravinsky’s Agon and Tippett’s Sonata No. 3 for Piano, which have proved influential in the author’s style of composition, and which are outstanding representations of a living tradition of which the author’s ballet suite forms part.

In conclusion, those features of tonality and line illuminated by analysis are related to the author’s own work.
**MEMNON**

an abstract ballet for eight dancers

Memnon was the son of Tithonus and Aurora.  
His broken statue gave a musical sound at sunrise.

<table>
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<tr>
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Campane tubolari
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