Frank Bridge: the String Quartets

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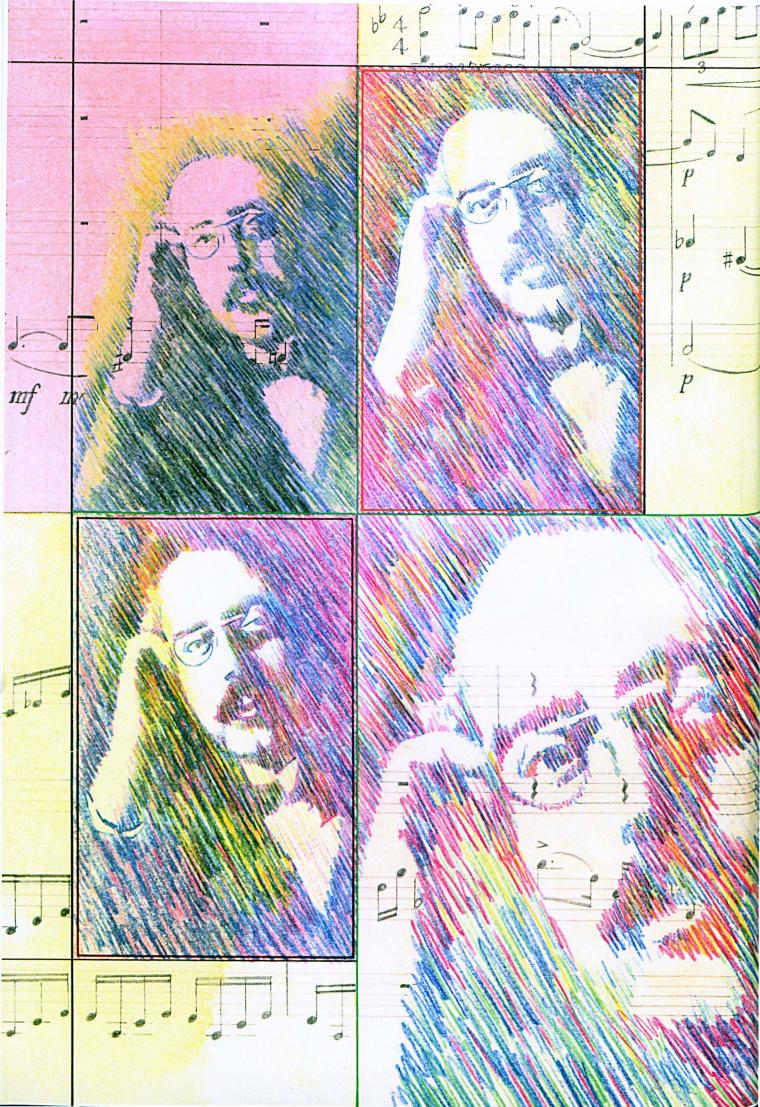


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Frank Bridge: the String Quartets - Angela M Edwards

This study traces the stylistic development of the string quartets. The opening chapter shows the way that his personal idiom emerged in the earliest works. It also explains the analytical approach that has been used. The concept of symmetrical orderings fusing separate elements has been evident in music from all stages of Bridge's output. Overall tonal relationships have linked with inner tonal relationships as well as thematic ideas and chord structures. In addition, symmetry has drawn together the two aspects of Bridge's language, the traditional and the radical, and shown how the way that they are balanced is subtly changed in the course of his development as a composer.

The music is explained from two approaches to symmetry, linear and circular. The ascending chromatic scale can be divided symmetrically by a number of intervals, notably seconds and thirds and tritones. Symmetrical orderings of two or more of these intervals are commonly found. The twelve semitones can also be arranged as a circle of fifths and it is this that has been most significant to the study. By adding tonal definition to these pitches, the circle of fifths explains this aspect of the music and also how certain pitches are interchangeable with one another. Therefore, the circle of fifths has also been a useful tool in explaining Bridge's concept of extended tonality.

The main part of the study discusses the second and third quartets in depth as they represent the peak of Bridge's creative output and are at the centre of important stylistic changes. The final chapter briefly shows the way that his language continued to develop in the abandoned work and the fourth, and last, quartet.

Stylistic Evolution

Frank Bridge belongs to the second generation of modern British composers, coming after such as Stainer, Parry, Elgar and Delius. Of these former musicians, Stanford is possibly one of the most influential in terms of his role as teacher of the generation of composers born in the last quarter of the nineteenth century, Ireland, Vaughan Williams, Holst, Howells, Moeran and Bridge himself. Stanford's main view of the art of composition seems to have been that a good technique was the chief objective and, indeed, Bridge's music demonstrates the professionalism and craftsmanship that stemmed from this attitude.

However, Bridge also exposed himself to wider influences and thus formed a highly personal idiom which progressed beyond mere proficiency. This dualism in Bridge's creativity can be described as a grounding in musical tradition coupled with an interest in contemporary techniques and ideas. Of the former, Bridge is quoted in a unique interview in "Musical America" in 1923 <1> saying -

'Some people talk of contemporary music as if it were the beginning of things - as if the music of the past could be ignored

altogether. This is a wrong view. That which has nothing in common with the past is lifeless.'

There is no comment by Bridge in this article, or apparently elsewhere, as to the developing musical techniques that were featuring in European compositions in the first quarter of the twentieth However, as a chamber music player, he was known to be performing contemporary French music, notably the first British performance of the string quartet by Debussy and performances of Ravel's music in the composer's presence. He was also undertaking conducting engagements which would have brought him into contact with some late nineteenth century German music. In addition, his association with Elizabeth Sprague Coolidge would have fostered his interest in current trends in music, partly as she promoted Festivals of Contemporary Chamber Music and commissioned works from the leading European composers such as Bartok, Stravinsky and Schoenberg. Bridge indicated his confidence in "modern" music when he urged his only composition pupil, Britten, to go abroad to further his studies with Alban Berg.

The development of a contemporary idiom within a traditional framework is clearly evident in the seven works for string quartet which span almost his entire creative life. It is one of the few forms to which he repeatedly returned. It was Bridge's interest in chamber music generally that led to important relationships with

Walter Wilson Cobbett and Elizabeth Sprague Coolidge. Cobbett was a wealthy, retired businessman who was a keen amateur musician. In 1905, he began to encourage chamber music vigo rously by instituting a Cobbett chamber music competition, which Bridge won three times in due course. He went on to commission works from young British composers such as Bridge, to offer performance prizes for student chamber ensembles and to compile what has become a standard book, "Cobbett's Cyclopaedic Survey of Chamber Music". Bridge's formative years coincided with this upsurge of interest and activity in the field of chamber music and clearly he benefitted from it.

Another fortunate coincidence was his meeting with the American patroness Elizabeth Sprague Coolidge at the home of his publisher, Winthrop Rogers, in 1922. She had, by this time, already founded a chamber music festival at Berkshire, Massachusetts and she, like Cobbett, went on to organise competitions, commissions and other festivals both in America and Europe. She eventually persuaded Bridge to allow her to endow money to him in order to relieve him from the pressure of violin teaching, thus enabling him to spend more time composing. In return, Bridge dedicated all his late chamber works to her.

Financial security does not seem to have altered Bridge's way of working in any way. The years surrounding the First World War had been the period when Bridge consolidated his personal idiom and so by

the early twenties, when he was in his mid forties, there was little chance of a fundamental change of approach. Bridge was a man of integrity who knew no other way than to be true to himself.

'The true artist writes to express his own honest views, not to please the public......... If he follows [his own] inspiration, that is sufficient to justify him, even though the work he produces under its influence pleases only two persons in the world.' <2>

The same interview mentioned earlier, also reveals something of Bridge's working methods -

'...... by patient experiment after experiment, not in public, but in the workshop. That is the place where new theories must be subjected to rigid and complete tests before they are given to the world...... A new work is the reflection of the composer's outlook upon life. He seeks truth, and when he presents his finished work to the public, he presents the solution of a problem.

The self-criticism to which the artist subjects himself will prevent him from foisting an ill-prepared work upon the public. The true artist may be trusted to take that care, and the greater the artist he is, the greater the care he takes. After that, the truth of his message must make itself known. If he is sincere, then all is well.

These attitudes clearly come across in his teachings too, as indicated by Britten. <3>

It is perhaps this integrity that led Bridge to combine traditional and forward looking techniques in his music, with a sense of respect for tried and tested ideas but avoiding mere imitation and displaying a keen interest in new ways of working. He took what he considered to be the best of both styles which allowed him to develop his own idiom. This double perspective of Bridge's music has been discussed before, recently in Anthony Payne's book "Frank Bridge: radical and conservative." <4>

The general view of Bridge's output is that his early music employs conventional tonal and formal frameworks, within which there is scope for much rich chromaticism. Many of the pieces from this period, up to the 1914 - 1918 war, have been described as salon music. While it is true that Bridge was writing music for both amateur and professional performance, both do actually demonstrate more intellectual and emotional depth than might at first be realized. A considered examination of the early "Novelletten" and "Idylls" for string quartet have shown this to be the case.

During the second decade of his creative life, Bridge developed his chromatic language further and it was at this point that contemporary performers and critics began to react unfavourably towards his music. This reveals the staid and reactionary attitudes of the British musical establishment of the time and doubtless Bridge's confidence suffered much as a result of such prejudices. In

1921, Stanford, in his Musical Association lecture (5), condemned what he termed "ugly music". He claimed not to be against progress but rejected music which was too free with its modulations, saying that it had only a limited audience. Clarity, beauty and simplicity were all virtues extolled by him. With such a figurehead of the musical establishment expounding these views, it is not surprising that changes in musical taste were only slowly brought about. However, Bridge continued to be true to himself and although criticism hurt him deeply, he refused to embark on 'mere playing around in the colors and embroideries of some fashionable caprice......'(6)

The music that Bridge wrote during and after the 1920s has been described as marking a stylistic revolution. <?> While it is true that the third string quartet sounds quite different to its predecessor because of its terser, more motivic language and heightened chromaticism, my work on tonal analysis of all seven works for the medium has led me to view them in terms of Bridge's stylistic development rather than as two different compsitional methods. early works, the "Novelletten" of 1904, the "Phantasie in F minor" of 1905 [the first Cobbett work] and the "Idylls" and Quartet in E minor [number 1] of 1906, are clearly written in terms of keys, with conventional harmonic progressions, sequential passages, flowing thematic lines and key signatures. However, there is still a significant degree of chromaticism, tonal ambiguity and elements which defy a conventional explanation. The two miniature sets, the "Novelletten" and "Idylls", are possibly more innovative than the

other two works. This may be due to their scale which would suit the trying out of techniques, and also to the fact that neither were submissions for composition competitions and therefore Bridge may have felt freer to suit his own ideas and tastes.

The String Quartet in G minor [number 2], which was completed in 1915, is in direct descent from the previous four works but although the traditional techniques are still present, there is greater emphasis of the tonal ambiguity and bitonality that was so marked in the early miniature works for the medium. The chromaticism is increased as a direct result of this and unconventional relationships and structures are more widely used. Also, there is a tendency to use pitches as tonal bases rather than keys, this also as a result of the chromatic idiom. Tonalities are now frequently established by pedals or repeating pitches and often ambiguity is created when upper parts imply one tonality and a bass part another. A wider range of tonal relationships is inevitably possible too.

The last two quartets, of 1925 - 1927 and 1937, are identified by number, 3 and 4, rather than by key. This is not to say that they are atonal, for they are not, but, like a significant part of the second quartet, their tonalities are established by pitch reference not diatony. Certain conventions are retained, notably the use of sequence as a structuring device, fourth and fifth relationships, traditional chords and traditional quartet textures. However, the

lyrical and expansive thematic writing, which was much used in the previous works, is now virtually absent. This is replaced by a meotivic way of structuring thematic material. This is not new; a striking example of motivic writing is the main theme of the central movement of the G minor quartet, for instance. The reason for structuring thematic material in this way is directly related to the implementation of a fully chromatic language, where an order of a different kind is required and one which can reflect tonal relationships more overtly. With the more progressive chordal structures of the preceding works, there is now an additional method of harmonic structuring in these works involving paired triads. formal boundaries are now less clearly defined too. From this brief description of the quartets, it is evident that his music gradually moves towards an equality of the twelve semitones, while retaining a tonal framework, and this indicates an evolving process rather than a stylistic revolution.

From my study of the quartets, I have reached the conclusion that all of them combine conventional and radical elements and that Bridge's stylistic development results in a change of emphasis. Whereas the early works show greater reliance on tradition, the last two quartets employ more of the forward looking techniques. The G minor quartet is at the turning point in his creative development and, as such, is an almost perfect balance of the two approaches. Whereas conventional methods can be explained in conventional terms, the more radical elements cannot and a different way of explaining them must be

sought. Also, Bridge was clearly trying to draw together the disparate elements in his music. The fact that Bridge put such apparent opposites together suggests that the two differing styles were used in a way governed by the same underlying principles. The two sides of his musical personality are continuously juxtaposed and therefore it is surely the analyst's task to find a way of explaining the music that shows how the separate threads are part of an overall, unified plan, a method that can explain both elements and how they are unified by a common premise.

Bridge's music has its origins in the extended tonal, chromatic language of the late nineteenth century. His early works are constructed round the concept of key. Nevertheless, as I shall show, diatony was often used in a non-conventional manner and even in the first of the quartet works there is some chromatic writing centred on a single tonal pitch and thematic and chord structures that are non-diatonic. In the second quartet, Bridge establishes G as the tonality fairly equally in terms of its traditional and unconventional centricity. With the last two works, diatonic tonalities are absent. Nevertheless, there is never any doubt that these works are tonal, although Bridge's continual quest for ambiguity creates much tension. An examination of the main tonal relationships of the seven works shows the way that Bridge's ideas on tonality developed.

Figure 1 overleaf.

Figure 1a) Novelletten - 1904.

I II III

Eb major G minor Eb major

b) Phantasie in F minor - 1905.

Allegro moderato Andante moderato Allegro ma non troppo

F minor D minor F major

- c) Idylls 1906.
- I II III

C# minor E minor C major

- d) String Quartet in E minor 1906.
- I II III IV

E minor C minor/major A major E minor

contd.

Figure 1e) String Quartet in G minor - 1915.

G minor B minor E major → G major

f) Quartet Number 3 - 1925 - 1927.

[Fb] \rightarrow C \rightarrow F# D \rightarrow G# C \rightarrow F#

g) Quartet Number 4 - 1937.

 $Eb \rightarrow D$ $Db \rightarrow E$ $C# \rightarrow D$

The most obvious point about these basic frameworks is that Bridge had an increasing tendency to employ tonal progression, within a work and eventually within a movement. None of the works employs an overtly conventional tonic to dominant, subdominant or relative progression except for the A major to E minor in the first quartet and B minor to E major in the second. What is common to all, though, is the third relationship, overtly used in the works up to and including the G minor quartet. The last two works also use tritonal and semitonal relationships and it is these that assume a greater importance than

the thirds, further evidence of the equalizing of the twelve semitones and the presence of a non-diatonic hierarchy.

While the minor third relationships can be explained in conventional terms, for instance, as the relative or as tonic and relative with change of mode, tritonal and major third relationships are more distant as they involve change of mode and non direct links. Semitonal tonal progressions are less easy to explain in conventional terms. As the quartets employ main tonalities that are not directly related in this way, other methods of explaining these relationships must be sought.

Lendvai's book on Bartok <8> postulates the theory of an extended tonic, dominant and subdominant, achieved through continuing relative functions. As a tool to explain this extension of conventional tonal relationships, he organises the twelve chromatic pitches as a circle of fifths.

Figure 2 overleaf.

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Figure 2.

T = Tonic, D = Dominant, S = Subdominant.

This structure explains minor third and tritonal relationships in terms of an extended tonality. Leading on from this, it can be said that pitches within the same tonal axis are interchangeable, therefore.

Applying this explanation of pitches to the main tonal relationships of the quartets increases the understanding of them and also draws together seemingly distant pitches which can now be explained in conventional terms and thus show direct relationships.

Figure 3a) Novelletten.

I II III

Eb major G minor Eb major

T D T

Figure 3b) Phantasie in F minor.

I II III

F minor D major F major

T T

c) Idylls.

I II III

C# minor E minor C major

D D T

d) Quartet in E minor.

I II III IV

E minor C minor A major E minor

T S S T

e) Quartet in G minor.

I II III

G minor B minor E major → G minor

T D T T

Figure 3f) Quartet Number 3.

I II III
$$(Fb) \rightarrow C \rightarrow F\# \quad D \rightarrow G\# \quad C \rightarrow F\#$$

$$D \quad T \quad T \quad S \quad S \quad T \quad T$$

g) Quartet Number 4.

I II III
$$Eb \rightarrow D \quad Db \rightarrow E \quad C\# \rightarrow D$$

$$D \quad T \quad S \quad S \quad S \quad T$$

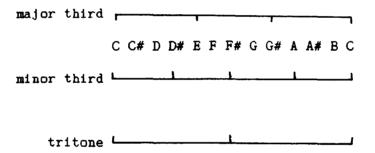
This ordering of pitches into tonic, dominant and subdominant helps to clarify the tonal progressions so that, for instance, the three Idylls present two aspects of the dominant leading to a tonic resolution. This method explains all of the tonal frameworks in conventional terms and therefore it seems likely that it will be useful in explaining smaller scale tonal progressions and points of thematic emphasis. Another important point regarding Lendvai's method, is that of pitches within the same tonal axis being closely related, irrespective of mode, and even interchangeable. Hence, C minor is followed by A major in the first quartet and C leads to F# in the outer movements of the third quartet. Thus, tonality is extended through motion to more distant pitches via tonal axes of symmetry and Lendvai has presented the possibility of connecting traditional tonal structuring and dividing the octave symmetrically.

Drawing all the twelve semitones into a conventional framework as functional and non-functional elements, while useful, will not serve as an adequate method to describe Bridge's stylistic development, By applying Lendvai's method to Bridge's tonal frameworks. it does imply that the quartets were dealing with the issue of equalizing the semitones, that there was a freedom to place seemingly unrelated pitches next to each other by extending the parameters. This is reinforced by the increasing chromaticism of the music. However, this is not to say that freely chromatic writing is anarchic, but rather that there was a reappraisal of the structuring of formal The fact that thirds were so important to Bridge in his elements. tonal structuring leads one to conjecture that certain pitches were put together for their intervallic relationship. Modern research into nineteenth century music highlights intervallic ordering as a way of structuring, essentially using those intervals which divide the octave Third relationships were favoured even from the symmetrically. beginning of the century and diminished seventh chords and tritones are characteristic results. The whole tone, used later in the century, possibly derives from the subdivision of the tritone. The semitone not only points to the dissolution of conventional tonal elements, but is in itself a symmetrical divider of the octave. Antokoletz, in his book on Bartok <9>, expresses it thus -

'Concomitant with the tendency to equalize the twelve tones in the latter part of the nineteenth century, symmetrical pitch collections began to appear as textural devices of local structural elements.....[which were] the primary means of integrating the large scale structure.'

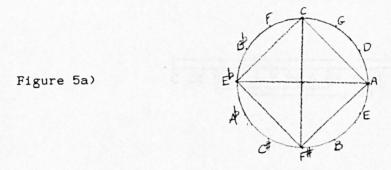
Recent research has shown that composers such as Rimsky-Korsakov, Debussy, Stravinsky and Bartok were concerned with structuring their music with an awareness of the symmetrical properties of intervals. The main tonal relationships of Bridge's seven works for string quartet employ major and minor thirds, tritone, semitone and perfect fourth. All except the last, are intervals that divide the octave symmetrically.

Figure 4.

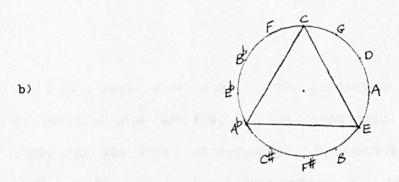


By using the circle of fifths again, as this is another symmetrical but conventional ordering of the twelve semitones, the symmetry is also clear.

Figure 5 overleaf.



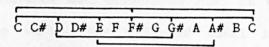
One example of minor third and tritonal axes of symmetry.

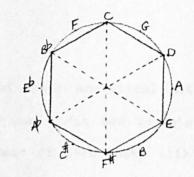


One example of major third symmetry.

The one symmetrical relationship Bridge does not employ in the large scale framework of the works is the whole tone, but it features in the local working and I show it below with its tritonal connections.

Figure 6 overleaf.





b)

As I shall show later, in the discussion of the works, the type of relationships manifest in the broad tonal architecture are the basis for the local structuring. By describing Bridge's music in terms of its intervallic relationships, all layers of the music are drawn together. This concept of intervallic structuring based on an underlying symmetry as a means of prolongation is derived from Schenkerian analysis which proposes that the compositional detail is determined by the form of the whole. Whereas Schenker approaches tonal music from the concept of harmonic progression, my study of the Bridge quartets is based on intervallic symmetry. Tonality in Bridge's music is established only partly by conventional functional methods, partly by altering these methods to form symmetrical relationships and also by a more radical approach to tonality. The application of 'prolonged motion within the framework of a single key

- determining progression' <10> is inadequate for transitional tonality. In addition, Schenker's approach depends on the clear definition of consonance and dissonance and, as will be seen in the discussion of the works, the extended tonal language blurs this distinction. Also, the passages of tonal ambiguity and pantonality lie outside Schenker's parameters.

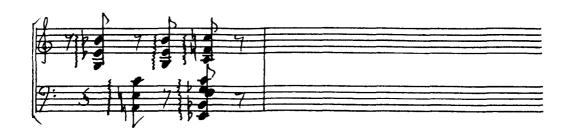
I have examined other analytical methods and from some have gained in evolving my own. Van den Toorn's discussion of octatonic structuring in the music of Stravinsky <11> demonstrates one way of working with a symmetrical division of the octave. My study of Bridge's music has revealed little apparent use of structuring in this way and I have concluded that its use forms part of a multi-faceted exploration of symmetry. In addition, much remains unexplained by adopting this method exclusively, chiefly the structural function of tonal relationships.

One analytical method that seems inappropriate for a discussion of Bridge's stylistic development is that of pitch class set theory, a principle formulated by Milton Babbit and developed by Alan Forte in his study "The Structure of Atonal Music" (12). This kind of analytical approach seems to be highly appropriate for post - tonal music as it explains chromatic vertical and horizontal structures. While Forte's approach may have a relevance to Bridge's later works,

the flowing lyricism of the early works would seem to deny explanation in this way.

Antokoletz's methods <13> have, to some degree, reinforced the idea of symmetry as an underlying principle but his way of taking several analytical approaches, symmetrical pitch construction, symmetrical transformation of folk modes, intervallic cells, does not clearly show a composer's stylistic development as works are discussed in more than one way. Useful ideas on the way that Bartok was interrelating traditional and non-traditional methods, helped to focus my view of Bridge's methods. 'The priority of pitch-class A is thereby established both as the root of traditional and nontraditional constructions and as the nucleus of this large scale tonal structure.' <14> I have taken this idea of unity further, however, by postulating that radical and traditional elements are also aspects of an underlying implied axis of symmetry. This I shall discuss later, in relation to the second and third quartets. Antokoletz's description of thematic and harmonic structures in terms of their horizontal symmetry has been usefully applied, at times, to explain certain aspects of Bridge's music. For example, the harmonic structures containing major and minor triads which are a tone or a tritone apart, used in the third and fourth quartets, are clearly explained in terms of their symmetry in this way.

Figure 7.



[The numbers indicate the number of semitones between two pitches.]

Sometimes, thematic symmetry explained in this way takes the pitches in their sounding order but, at times, a re-ordering is necessary, as for example in the sequential writing in bars 19 - 27(3) of the first movement of the G minor quartet. Entries occur on D and C but only the former have a symmetrical makeup and then only in rearrangement.

Figure 8.



The scalic order of pitches is -

D Eb F G A Bb C D

1 2 2 2 1 2 2

but putting the pitches into ascending order on C results in symmetry-

C D Eb F G A Bb C

21 2221 2

Another example of symmetry from the same work explained by rearrangement of pitches occurs with the first playing of the main theme of the second movement, in the introduction.

Figure 9.



The sounding order is a rearranged symmetrical pattern based on the pentatonic scale on B ${\color{black}\textbf{-}}$

B C# E F# A B

2 3 2 3 2

Although Antokoletz's study has proved to be a valuable insight into current analytical style, some aspects of his work, such as his discussion of folk modes in Bartok's music, are irrelevant to a study of Bridge's music.

Ultimately, my method of describing Bridge's music evolved over a period of time and after examining all seven of the major works for string quartet which represent every stage of his creative life. approach has been born of studying recent analytical models and having a keen sense of the musical language being an ongoing, organic process. Bridge left no clues as to his compositional methods via the written word and most of his working manuscripts were destroyed. method of describing the music leaves some aspects unexplained but passages that lack a clear definition may perhaps be irrelevant to the main structuring. I have chosen to discuss the second and third quartets in detail as they are crucial to explaining Bridge's stylistic development, the former coming at the peak of his early, evolving style and the latter demonstrating his new compositional approaches, albeit borne of the old. While the presence of 'radical and conservative' <15> elements is clearly evident, there is also an implied unity of concept; 'the diversity of the foreground is meaningless unless it occurs against a background of unity.' <16> 'An analysis should undertake to explain essential relationships within a composition, their genesis, ordering, interaction and relative importance to the parts and to the whole of the work.' <17> have attempted to do by showing the way that an implied axis of symmetry underpins the tonal framework of the second and third quartets and that this is the structural framework of local working.

To sum up, my method of describing the music draws on the Schenkerian principle of unity of the different levels of working

allied to Bridge's more broad based concept of tonality. In order to explain these tonal relationships, I have used Lendvai's way of organising pitches into tonal axes, which led to a search for aspects of symmetry in intervallic relationships, prompted by my readings, chiefly of Antokoletz. Before discussing the second and third quartets in respect of this method, I propose to examine the salient aspects of the former work in relation to the preceding quartets, to show how the elements of Bridge's mature style were, to a large degree, present in the early compositions.

Traditional Structuring

Bridge's compositional style clearly evolved from a grounding in traditional techniques and, therefore, I now propose to examine this aspect of the G minor quartet in relation to the "Novelletten", "Phantasie", "Idylls" and E minor quartet. Tonality being the essential reference of Bridge's music, it is his conventional tonal relationships that I shall discuss first. Although the main keys of the three movements of the G minor quartet are not closely related, G minor, B minor, E major and G major, conventional relationships exist within the broad spans of the first two movements. The first and second subjects of the first movement are in G minor and Bb major respectively in the exposition and the two main themes of the second movement are in B minor and D major. Both pairs of tonalities have a conventional, relative relationship which highlights the minor third. Similar relationships occur in the first section of the "Phantasie" and in the first, second and fourth movements of the Quartet in E minor.

In the smaller scale, the first and second subjects of the first movement of the G minor quartet, in both exposition and recapitulation, have tonal progressions of a fifth or a fourth. The first subject moves from G to D and the second subject from Bb to Eb in the exposition and G to D in the recapitulation. The development

also has a tonal outline of a fourth, D to G, but neither pitch is emphasised and the obvious tonal movement is from the C# of bar 88 to the E of bars 125 - 127. In the recapitulation, bars 146 - 152 lead to the repeat of the second subject with a tonal progression of D \rightarrow A \rightarrow D \rightarrow G. In the second and third movements, the tonal progressions of sections do not have such outlines but there are many such relationships in the course of the writing, as in the preceding movement. One notable example is the start of the middle section of the second movement, where, following the brief touch on D, the music moves quickly through $F\# \rightarrow B \rightarrow E \rightarrow A \rightarrow D$. This pattern of fourths is repeated and references to it occur in the course of the section. In the finale, the opening theme of the Allegro vivace begins on D, bar 27 et seq., while the second part of the idea, bar 71 et seq., begins on G. A prominent progression from G# to C# occurs in bars 186 - 209(1) of the development.

The "Novelletten" was the first acknowledged work for the medium, and it is no surprise that conventional tonal progressions are used. After a tonally ambiguous introduction, section A of the first piece is approached from a perfect cadence in Eb in bars 15 - 22. The second section is characterised by an extended passage on the tonic pitches of C and Eb, with a relative relationship, in bars 55 - 60. Tonalities in the piece so far have been fleeting and so this passage is significant. These two pitches are used again periodically in the return of section A, in bars 87 - 97. The first piece ends with an Eb + Bb + Eb tonal progression in bars 101 - 111. The second "Novellett"

begins in the tonally transient manner that typified much of its predecessor but the second section ends with an $B \rightarrow A \rightarrow D$ progression in bars 37 - 44. The final playing of section A begins in bars 67 - 72 with a traditional tonal movement, from G to C. This is the only time that the section begins in this way. The overall tonal progression of the piece is from D to G. The third piece also begins with shifting tonality and the first instance of traditional structuring occurs in the middle of the first subject, bars 17 - 23 where the music is based on an arrangement of the fifths Bb, F, C and G. The second subject is more conventional in both exposition and recapitulation, with $Bb \rightarrow Eb$ and $G \rightarrow C$ progressions in the former and $Eb \rightarrow Bb$ in the latter.

The "Phantasie" in F minor begins in a different manner to the preceding work as it is tonally stable from the outset. The first forty-four bars are based on F and C, as tonic and dominant, and only then does the music begin to widen its tonal parameters. It is not until the end of the second subject that such a firmly conventional progression is reintroduced, with the Eb \rightarrow Ab tonalities in bars 81 - 92. The recapitulation of this section is ordered in a similar way as it ends with C \rightarrow F \rightarrow C tonalities in bars 162 - 185. However, the repeat of the first subject is tonally far more adventurous than its original version. The third section of the work begins with the tonal convention of C \rightarrow F \rightarrow Bb \rightarrow F in bars 341 - 356 but this kind of structuring is then avoided until the beginning of the fourth playing of the rondo theme, bars 462(2) - 468, F \rightarrow Bb \rightarrow F.

more coherently adventurous than the previous works. Although relative, fourth and fifth relationships exist, they are not extended over a reasonable span and there are many more implied but unresolved tonalities. One notable passage occurs near the beginning of the first piece after much ambiguity. A clear progression of fifths is evident in bars 7 - 16, $B \rightarrow F\# \rightarrow C\#$.

The Quartet in E minor is the last of the earliest works and this too displays traditional tonal structuring. Like the G minor quartet, the second subject in the first movement has a conventional opening, beginning in G major, the relative, and progressing to C, bars 66 -The main tonality is reinforced in bars 76 - 94 with a D to G However, after this the section moves to more radical progressions. The recapitulation of the first subject implies a more conventional structuring than the original as unresolved pitches move up a fifth, (E) \rightarrow B, (G) \rightarrow D and (Bb) \rightarrow F. The repeat of the second subject begins with similar conventions to that of the exposition, moving tonally from E to A to D in bars 242(1) - 257. The movement ends with a coda that comprises progressions from E to B and B to E. separated by a relative C to A movement. The main theme of the second movement is lyrical and flowing and this is matched with a stable tonality, initially. In bars 22 - 35, C moves to G. This is repeated in the repeat of section A. The finale resumes the E \rightarrow B \rightarrow E progression of the first movement at the start of section A.

Allied to Bridge's use of conventional tonal relationships is his use of conventional chords and progressions in some passages. A good example of this is the beginning of the second subject of the first movement of the G minor quartet.

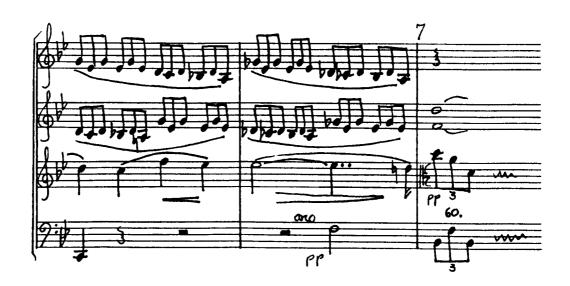
Figure 10. G minor Quartet I Bars 49 - 60(1)





Figure 10 contd.





The Bb major theme is clearly supported harmonically at the beginning by the pizzicato 'cello chords. The rocking ostinato figure, split between the two upper parts, in turn supports them and adds sevenths and ninths. Although the harmony is less clearly defined from bar 56, the rest of the passage is clearly based on conventional triadic structures and a strong harmonic bass is evident in 57 - 59, culminating in a perfect cadence in Bb major. All three of the quartet movements end with a perfect cadence which is unusual in the

context of the preceding works which do not make consistent use of this as a conclusion.

The opening bars of the third "Novellett" indicate that this kind of triadic harmony was a feature of Bridge's music from his early post student days.

Figure 11. Novellett III Bars 1 - 4



Another good example of such writing is found in the passage leading to and anticipating the second subject of the first quartet's first movement.

Figure 12 overleaf

Figure 12. E minor Quartet I Bars 51 - 66(1)





Figure 12 contd.



This passage contains mostly one or two chords in the bar, exceptions occuring where the melodic line or accompaniment introduces an extra pitch. Nost of the chords are based on major or minor triads but there are three diminished chords. Sevenths, ninths and elevenths are added and there is one accented auxilliary note [the F# at bar 60(1)] and one suspension [the A to G at 63(1-3)]. The passage ends with a conventional perfect cadence in G major to prepare for the second subject proper. Not only are the chords themselves conventional in makeup in these passages, but the progressions are too, each, for instance, culminating in a clear perfect or imperfect cadence. However, although passages of conventional harmony exist, it has to be said that they are not common. As will be discussed later, similar passages are less clearly defined in a number of ways.

The sequence is a classical feature of tonal music and it is freely used as a thematic structuring device in the G minor quartet.

The first subject of the first movement contains such writing.

Figure 13. G minor Quartet I Bars 1 - 6(3)



Here, the fifth and sixth bars repeat the two preceding ones down a perfect fifth. Another notable sequential passage occurs in the transition at bars 30 - 35 where all parts are subject to a three bar repeat up a perfect fifth. [The violin parts are interchanged from bar 33.]

Figure 14 overleaf.

Figure 14. G minor Quartet I Bars 30 - 35



The second part of the main theme of the finale contains sequences.

Figure 15. G minor Quartet III Bars 67 - 70



Again, all parts are involved as the first two bars are repeated down a fourth. The four bar phrase is in turn sequentially repeated from bar 75, beginning on E and G#, a fifth below the original. Later in the movement, bars 215 - 216, Bridge combines first movement and finale themes. With the repeat of this combination in bars 219 - 220, the material is transposed up a fourth.

Sequential writing of this nature occurs in the quartet works prior to 1915. In the "Novelletten" of 1904, the main idea of the

second movement is quickly subject to sequential repeat at the interval of a fourth.

Figure 16. Novellett II Bars 5 - 10





However, apart from a relatively obscure example in the final piece, bars 30 - 33, conventional sequencing is remarkably absent from these miniatures. The same is true of the "Phantasie" of 1905. The clearest example ocurs in the middle section of the work where the repeat of its opening material is subject to sequential development.

Figure 17. Phantasie Bars 259 - 264(2)



This material returns as part of an A B A structure and on the second playing additional sequencing is added to the end of the above example. The rest of the work contains very few instances of this type of writing; it is short lived and not placed prominently.

A striking example of sequencing occurs in the first "Idyll" of 1906, at the climax of the first section, bars 22 - 24, where the material descends in fourths in all parts.

Figure 18. Idyll I Bars 22 - 24



The first quartet, in E minor, from the same year, also makes little use of conventional sequential writing, using considerable

repetition to extend ideas. An early attempt at a sequence, at the start of the first subject of the first movement, bars 8 - 9, is short lived and not an exact repeat. The transition in the same movement contains a more authentic passage, rising in fourths.

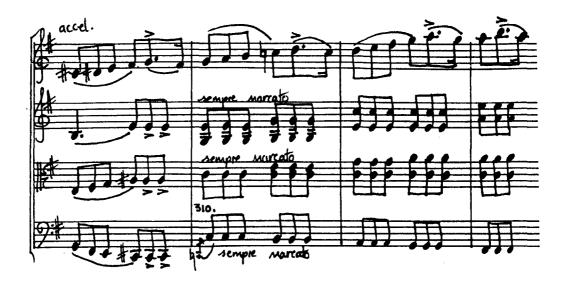
Figure 19. E minor Quartet I Bars 34 - 37





The movement's coda uses sequential material to lead to its climax at bar 313 but here the rising fifths are prefaced by a tritonal repeat.

Figure 20. E minor Quartet I Bars 309 - 312



In summary, then, although conventional sequential writing exists in the quartets up to and including the G minor quartet, its use is limited and there are only one or two instances of it used in an accented and obvious way.

Another conventional aspect of the music is Bridge's predilection for writing expansive, lyrical themes. In the first movement of the G minor quartet, both main themes are in this vein, although because of their tonal and harmonic context, it is the second subject that is more overtly conventional. [See Figure 10.] Two themes in the second movement are conventional too, but now it is the second part of section A, from bar 25, and the theme of section B.

Figure 21. G minor Quartet II Bars 25 - 31(1) and 78 - 86



Figure 21 contd.



In the finale, both main themes from the first movement are re-used and the only new lyrical writing is the short lived transitional material which is similar to the earlier movement's second subject.

Similar use of thematic lyricism occurs in the earlier quartet works. In the first "Novellett", both main themes are like this, although the first theme is only arrived at after eighteen bars of working out.

Figure 22 overleaf.

Figure 22. Novellett I Bars 19 - 26 and 45 - 50.



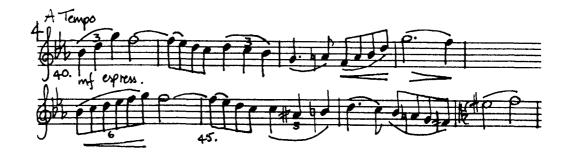


In the second and third pieces, it is the second ideas that are broad and sweeping.

Figure 23. Novellett II Bars 25 - 30



Figure 23 contd. Novellett III Bars 40 - 47.



Only the middle section of the "Phantasie" has thematic writing exclusively of this type.

Figure 24. Phantasie Bars 253 - 258 and 271 - 274



In the outer sections, this type of thematic writing is again reserved for second ideas.

The first "Idyll" is the first of the quartet pieces to present this extended lyricism from the outset and so this demonstrates a clear link with the G minor quartet.

Figure 25. Idyll I Bars 1 - 7(1)



Although at a slightly faster tempo, the second theme is in a similar vein, although without the seamless note spinning quality of its

predecessor. Themes of a similar type are the main theme of the second "Idyll" and the second idea of the third.

The first subject of the first movement of the first quartet is in this style but much more chromatic than anything Bridge has written so far.

Figure 26. E minor Quartet I Bars 5 - 7



The second subject is altogether more conventional. [See Figure 12, where the second subject theme is played by the viola.]

The second and fourth movements also contain lyrical writing.

Figure 27 overleaf.

Figure 27. E minor Quartet II Bars 26 - 33 and IV Bars 61 - 70





Transitional Structuring.

If there are elements of Bridge's style that can be explained in conventional terms, there are also examples of such writing that are placed in a slightly unfamiliar context. In other words, some aspects of his music can be described as having their roots in tradition but their use moves towards less conventional structuring. The opening theme of the G minor quartet is clearly in the home key despite the absence of F# as the leading note. However, the sustained D pedal, as dominant preparation, in bars 7 - 8(2) is unresolved, as it shifts chromatically onto Db. The dominant preparation at the end of the first subject, bars 24(2) - 27(3) passes onto Bb before moving onto G for the start of the transition. At this point, the very chromatic bass line weakens the sense of tonality too, bars 28 - 29(2). is further tonal ambiguity at the end of the transition. In bars 43 -48. the bass sustains an F# pedal which implies a dominant preparation leading to B. In fact, the second subject begins in Bb which is actually approached from a D#7 chord in first inversion at the end of the transition, an enharmonic V7 of Bb. [In the recapitulation, this lead into the second subject, bars 150 - 152, is achieved as a result of a completely conventional dominant approach.]

The second movement of the G minor quartet begins with a tonal, thematic idea but this is continually unfolding to reveal a series of possible tonics for the movement. Eventually, B minor is established

thematically in bar 8 but the C#7 diminished and E# chords in bars 8 and 9 do not reinforce this. It is not until bar 17 that theme and harmony come together in B minor. Although the middle section of the movement is tonally clear, once again, there is a continually shifting tonal progression at the start.

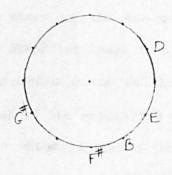
Although a fourth exists between the B minor at the end of the second movement and the E major at the start of the finale, the change of mode distances the link. In fact, a symmetrical structuring results from this and therefore an unconventional use of a traditional concept occurs.

Figure 28.

B minor → E major

B D F# E G# B

3 4 2 4 3



The pitches rearranged in scalic order are -

B D E F# G# B

3 2 2 2 3

Significantly, the B which lies at the centre of this symmetry, while markedly present in the final chord of the second movement, is omitted from the E major at the beginning of the finale as the complete tonic triad is avoided. This is a similar example to that in the E minor quartet, discussed later.

The opening thematic idea of the first subject in the finale, bars 27 et seq., is tonally centred on a D pedal in the 'cello. However, the theme itself emphasises E initially and avoids C# The idea is actually constructed out of a pentatonic scale on G. The second part of the first subject, bars 63 et seq., is clearly defined, unfolding over a bass pedal also apparently The theme itself begins with a rising fourth onto G but whereas this would conventionally involve an anacrusis, Bridge places D on the first beat of the bar, thus unsettling the tonal stability. The second subject is introduced in a fully chromatic context which is in anticipation of the true start of the new section in bar 133. theme is clearly set in B minor but there is a pedal D in the bass and a continuation of the chromatic style in the viola. Further tonal ambiguity occurs at the end of the exposition where there is a Bb bass pedal in bars 150 - 152(1) which implies a tonal move to Eb or F. At the last moment, the bass moves onto G which provides the dominant for the ensuing D at the start of the development. Tonal duality exists in the passage in the development beginning at bar 179 where a C# pedal establishes the tonality while the first subject of the first movement is played on G#. In the recapitulation, both themes of the first movement are combined from bar 275, the first subject starting on G and the second on Ab. A pedal C underpins this. Even in the work's coda, tonal stability is interrupted as there is a sudden shift from G major to E major before the final tonic resolution.

From this discussion of transitonal tonality in the G minor quartet, it is clear that there is much ambiguity, achieved by several pitches being used at once. Also, on many occasions, tonalities are established by pedals rather than by harmonic means. This provides tonal reference in a more chromatic idiom. Sometimes, a pedal on one pitch will underpin a diatonic theme based on another. As will be seen later, in the discussion of the work in chapter 2, there are many unconventional tonal progressions involving such intervals as semitones, thirds and so on. In addition, conventional fourth and fifth progressions are frequently separated by intervening pitches.

Tonal ambiguity features at the start of the "Novelletten", with an introduction of eighteen bars. Initially, a Bb pedal figure assumes a tonic role but in bar 3 the theme starts on F, thus setting up a dualism. The first thematic phrase comes to rest on a G minor triad, the second, which is an altered repeat, concludes in bars 9 - 10 on Gb harmony. The third attempt of the theme progresses over a

longer span to Bb harmony at the end of bar 18 but Gb chords play an important part in the phrase. Bb is clearly tonally resolved onto Eb for the start of the theme of the first section in bar 19. However, it is not until bar 37 that theme and harmony seem to come together as on the first playing the harmony establishes Eb while the theme begins on the Bb that was implied in the introduction. In bar 37, the 'cello plays an oscillating Bb F and the theme begins on Bb. However, the harmony does not support this implied Bb tonality and the thematic line retains the Ab of the Eb tonality which was used for the first statement of the theme, from bar 19. Although Eb is the true tonic of the first piece, Bb is implied at the start of the repeat of the section A, from bar 76 and Eb only emerges gradually. The coda, which begins in bar 98, is very similar to the introduction but now the two phrases culminate on Eb chords instead of G and Gb.

The second section of the second "Novellett" begins in an ambiguous manner with an A major key signature and A in the bass but with B as the thematic starting note and B minor? as the accompanying chord. This means that the E major9 chord which concluded section A resolves as both IV and V. The end of the section is equally unclear as D in the bass in bars 41 - 44 is the root of D minor seventh and ninth chords until the last bar when it becomes B minor? in first inversion. D has been set up as a dominant and then its function changed. In fact the return of section A begins with an unambiguous G minor which was absent at the beginning of the original version.

The "Phantasie" begins in a more conventional tonal manner. With the second subject of the first section there is a major third movement from the Ab major of the first playing to C major with its repeat, bars 68 - 69. Both tonalities are partly established and maintained by pedals in the bass. Another unconventional tonal movement in this section occurs in bars 80 - 81 where the music shifts from E to Bb. A tritonal shift is also used where this material returns at the start of the development, bars 93 - 102. Ab + Db in bars 93 - 96 becomes D + G in 98 - 101. A whole tone shift from D to C occurs later in the development, bars 122 - 123. A bitonal reference occurs in bars 218 - 221 of the recapitulation where the first subject in Db major is placed over a Bb pedal in the bass. first section of the "Phantasie" ends with a firm F minor in bars 245 - 248 but its effect is weakened from bar 250 where Ab is the emphasised pitch in an F minor broken chord. The emphasis is switched to C in the following two bars which end the section.

The middle section of the work begins in D major which is related to neither F minor nor C. The middle of this section begins with a theme in F# but over a bass which emphasises C#. Like its predecessor, this section ends in an ambiguous manner. F# is held through the last three bars, 301 - 303, which suggests a resolution on C# or B. In fact the return of section A comes in D major, like the first playing. The central part of the "Phantasie" ends in an uncertain manner. Although the bass moves from C to F in bars 336(3) - 339, suggesting a further move of a fourth to Bb, the harmony does

not support this as C major progresses to A minor? and D minor?, implying a resolution on A or G.

In fact, the beginning of the final part of the work continues the ambiguity. The theme suggests D minor but there is no supporting harmony.

Figure 29. Phantasie Bars 349(3) - 341(1)



The D minor first inversion at the beginning of 341 is followed by G major7, which sets up the possibility of a move to C. In fact, in due course this final section will centre on F major but this is not

firmly established in the first playing of this first idea. Another example of tonal ambiguity in this part of the work occurs in bars 408 - 413, a passage at the end of the second playing of the first thematic idea and leading to the restatement of the second. E is convincingly established in the bass but the upper parts are quite chromatic.

Figure 30. Phantasie Bars 408 - 414





From 411 to the end of the passage, each bar ends on a chord of E.

in.

However, Athe final bar,

what might have been a dominant preparation on E is now switched to B as it is this pitch that is held over. In fact, neither E nor B turn out to be dominants as the return of the second idea comes on C. The only time that F major is clearly stated is in the coda, bars 471(2) - 472(1). The section's main theme is always tonally ambiguous and even at this point, the F major triad is avoided.

The first "Idyll" begins with an unaccompanied theme in the viola which clearly lies within C# minor. However, as the other instruments are added, their chromaticism weakens the tonal reference. The whole of the first part of this first piece is tonally shifting and many implied tonalities are not resolved. Section B begins in bar 31 with an enharmonic shift to Db and the major mode. This is established and retained much more firmly than the C# of section A.

The most unusual tonal structuring in the work occurs at the beginning of the second piece. The three upper parts imply a I - IV - I progression in E major in bars 1 - 4 but the 'cello has a repeated C to F# tritonal outline underneath. In bar 5, the upper parts move to Ab major which is a major third from both E and C. The 'cello in bars 5 - 7 plays an F to B tritone which is a semitone lower than C - F#.

The second phrase begins in bar 9 with the upper parts in C# major and the 'cello playing an A to D# tritone. These pitches have an axial third relationship to the original playing. The second half of the phrase, beginning in bar 13, combines F major with D as this time the tritone is avoided. In fact this second phrase ends with a clear V - I cadence in E minor.

This clear cut resolution is avoided in the repeat of section A. A bar's rest at 93 replaces the cadence. This is followed by a repeat of the end of the phrase up the octave and the rest. A falling sequential passage based on the major third follows in bars 97 - 104. This eventually resolves with a V - I progression in 104 - 105 but this is incomplete as the E minor/major triad is replaced by the tonic pitch in all parts for the first beat of 105. This is followed by a bar of harmonics on E and C which are the two tonalities implied at the start of the piece.

Bridge frequently sets up the possibility of a tonality but replaces it at the last moment. An example of this occurs in the third "Idyll" in bars 101 - 105.

Figure 31 overleaf.

Figure 31. Idyll III Bars 101 - 105



The Bb7 chord in bars 101 - 103(1) appears to be a V7 in Eb but the resolution in 105 is on A, the counterpole of Eb. The same principle occurs in bars 110 - 114 where C major? leads to B not F. However, the final playing of this passage, in bars 114 - 116(1), resolves B7 conventionally onto E major at 118.

The coda of this third piece begins in bar 206 and for the first twenty-two bars the tonality is established and retained by a bass pedal C. The upper parts move chromatically throughout this passage.

The Quartet in E minor begins with the sort of tonal ambiguity that marked the start of the "Novelletten". Now, though, the

expansiveness of the earlier work is replaced by a series of fast moving tonics in the unaccompanied thematic line, C B A and G.

Figure 32. E minor Quartet I Bars 1 - 4



The bassline fifth, F# to B, in bars 3 - 4 suggests a further progression to E in bar 5. Although this pitch is placed in the bass at this point, the start of the first subject, the theme begins on C. The final chord of the introduction is G9 in first inversion which leads to the thematic C. However, the tonal intention is blurred by the pairing of E and C in bar 5. It may be no coincidence that these two pitches were paired to create a similar effect at the start of the second "Idyll", written in the same year.

The first subject which begins in bar 5 is chromatic initially and so tonal reference is largely obscured. In bars 14 - 15 a pedal B implies a dominant preparation for E but the bass moves down in the next four bars and the tonic is only reached in bar 20, once again with C as the thematic tonal centre.

The transition begins in bar 28 with a pedal E as a foundation for chromatic writing in the upper parts. Counterpole replacement occurs later in the section, bars 41 - 42, where an implied move to A is replaced by Eb. In bars 46 - 47(1), A is eventually established and so Eb is merely a diversion.

A further example of this kind of tonal ambiguity occurs at the end of the development, bars 186 - 203(2), where a pedal C underpins much chromaticism until bars 200 - 203(1) where there is a resolution onto a C major triad in all parts.

In the recapitulation, E as a tonality in its own right is avoided as C continues to feature as the starting point of the theme. Even at the beginning of the coda the pedals in viola and 'cello, bars 297 - 302, are accompanied by C as the starting pitch of the theme and it is only in the last four bars of the movement that the resolution on E is brought about. Here, accented E minor chords are followed by a unison E. By resolving on the single pitch, all ambiguity is removed.

The second movement opens with twenty bars of writing which is tonally and thematically unsettled. The music is chromatic, punctuated by the opening Db and D chords which recur in bars 15 - 17. There are several attempts at beginning the theme but nothing of any

length is achieved. C minor tonality is eventually established in bar 21, following the pedal C in bar 20. A conventional C minor theme is started in bar 26 and this is followed by the dominant, G minor from bar 33(2). A more radical tonal progression occurs in bars 42 - 45 where the theme is started as for C minor and then as for F#. The second part of the movement begins in bar 63 with an eight bar phrase which ends with an F# to B progression in the bass. The latter pitch is held with a pause and forms the root of a B minor triad at the end of bar 70. This implies a further progression onto E at the start of the next bar but in fact Eb follows and thus a major third tonal progression is achieved.

The main tonalities of the third movement are A and G which are not directly related. However, by considering all pitches to be part of an extended tonic, dominant, subdominant construction, G is a dominant to A. The movement begins with a clear A major. The first important tonal move is to F# in bars 13 - 21. However, Bridge creates ambiguity as he places chromaticism over the bass line pedal and then reintroduces the original theme on A from bar 17.

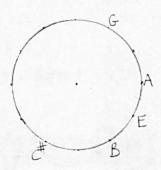
The third movement ends with the conventional manner that opened it. A major is presented in an uncomplicated way and it is followed by E minor at the start of the finale. This forms a conventional subdominant to tonic. However, the change of mode implies a symmetry between the two tonic chords.

Figure 33.

A major → E minor

A C# E E G B

4 3 3 4



Rearranged in scalic order -

E G A B C# E

The finale continues the tonal ambiguity and the unconventional relationships of the preceding movements. The first subject of the first movement is reintroduced from bar 239 with the same bitonal reference as before. It is this material that concludes the work, thus providing a cyclic identity. The final statement is the unaccompanied version of the first subject which opened the work. This time the chromatically descending theme progresses onto E but as the cadence is avoided, the tonal resolution is weak.

Linked with transitional tonal structuring is Bridge's harmonic style. In the G minor quartet, there is much fluid chromatic writing and sevenths and ninths proliferate. The opening of the work shows how Bridge achieves a seemless flow while using conventional and radical progressions.

Figure 34. G minor Quartet I Bars 1 - 4(3)



Frequently, the chords lie outside the main tonal reference. An example of this occurs at the beginning of the transition in the exposition of the first movement.

Figure 35 overleaf.

Figure 35. G minor Quartet I Bars 28 - 30(1)

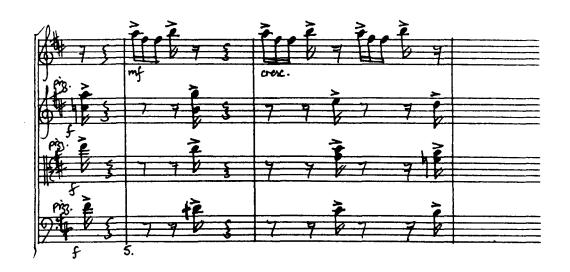


After the G minor triad at the beginning of the passage, a seventh and ninth are added followed by unresolved augmented sixth chords at the end of bar 28 and alternating C#/Db and D chords in 29.

In the development, bars 90(3) - 94(1), there is a passage of alternating C# major and E minor chords which are not directly related. Both chords are in the same tonal axis and, as will be shown later, it appears that the two are placed together for the symmetry that they produce.

Bridge also has a fondness for diminished and augmented chords. A passage which demonstrates this occurs at the start of the second movement.

Figure 36. G minor Quartet II Bars 4(2) - 8





As will be discussed in chapter two, these types of chords have symmetrical properties.

A striking example of tonality and harmony at odds with one another features at the end of this second movement. The theme in the second violin is clearly in B but there is avoidance of a cadence as

the two B minor triads in bars 193 and 194 are approached from Eb augmented. The perfect cadence is only put in at the last moment.

Another example of theme and harmony at odds is the first playing of the second subject in the finale, bars 115 - 132. This is almost an anticipation of the section as there is no demarcation in the expected Bridge manner. However, the B minor theme is accompanied by fluid chromatic harmonic progressions.

The opening of the first "Novellett" also demonstrates the separation of tonality and harmony.

Figure 37. Novellett I Bars 1 - 10(1)



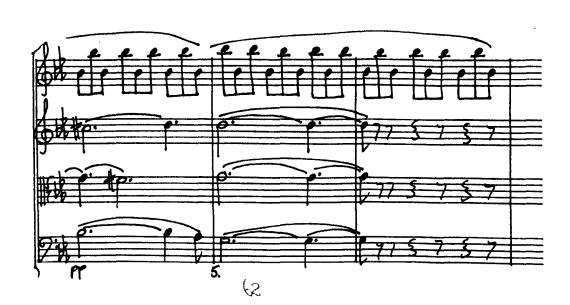


Figure 37 contd.



The second movement opens in an ambiguous manner too. The first bar implies a D major tonality but G is the true tonic of the movement. The first four bars comprise conventional progressions, D to A and C# to F# to C#. This final chord remains unresolved, however.

The beginning of the second section of the second "Novellett" begins in bar 25 with ambiguity caused by the mismatch of tonality and harmony. The bass pedal A provides the tonal base but this is not reinforced harmonically until the perfect cadence in bars 25(3) - 26(1).

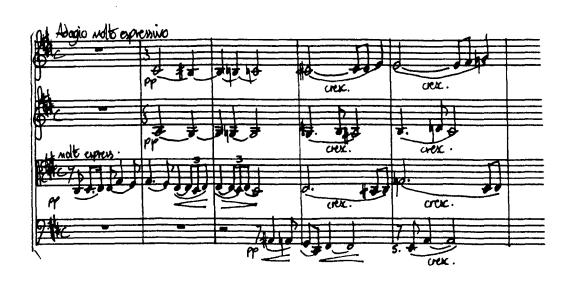
The "Phantasie" places ambiguous writing in an inner position, the opening is tonally more direct. However, the approach to the recapitulation of the first section is a little unorthodox as chords

of Eb and G are alternated in bars 138 - 141. The latter implies a possible resolution on Ab, the tonality of the second subject in the exposition; it is this material that opens the recapitulation. However, the recapitulation starts in F major and so the Eb chords seem to be a dominant axis replacement for C.

An unusual progression is used twice at the beginning of the middle of the slow section of the work. In bars 271-278, there are two whole tone progressions, F*-G*-Bb and A-B-C*.

The "Idylls" begin in a similarly fluid harmonic style to the G minor quartet.

Figure 38. Idyll I Bars 1 - 5



The Quartet in E minor begins with an unaccompanied thematic line that implies a series of possible tonics. It is broken off at the end of bar 2, before the move onto E. This is replaced by a repeat of the F# to G progression at the end of bar 2 in bars 3 - 4 but now expressed in full harmony, F# major 9 to G augmented 11. This sets up the possibility of a further move to C and this is what happens at the start of the first subject in bar 5. However, this is not the expected tonality for a quartet in E minor.

At the start of the transition, the pedal E is still part of a C major chord and the E minor triad is only permitted on the last quaver of the bar, 28. This bar is repeated twice at 30 and 32. It is then repeated sequentially, on a pedal A and D in bars 34 and 36. Again, tonality and chord come together only on the last quaver. At the climax of the transition, bars 42 - 45, there is an unconventional progression which incorporates diminished and augmented chords.

Figure 39. E minor Quartet I Bars 42 - 45



Figure 39 contd.



The second movement opens with a semitonally shifting progression Db-D-Db. The first of these chords is an axial third from the E at the end of the preceding movement. The whole progression is far removed from the C minor tonality that emerges as the tonic of the movement, although a further downward shift would lead to that pitch. Another interpretation of this progression is as G-D-G, with counterpole replacement, which again, would lead to C by continuing the fourths.

Although sequencing points to a conventional musical structuring, Bridge uses this technique in a more radical way. Apart from repeating at the interval of a fourth or fifth, there are sequences involving other intervals. Following the conventional sequences in the first part of the first subject of the G minor quartet, there is sequential writing in bars 14 and 15 of the first subject at the interval of the whole tone.

In the second movement, the second part of section A begins in bar 25 with a new theme in the 'cello starting on B. The repeat of the idea begins in bar 33 with the theme transferred to the viola and starting on Bb. Later in the movement, in the middle section, the material is repeated in rising sequences at the interval of a third, bars 91 - 93. Eight bars later, there is a similar passage but on different pitches.

More sequencing on thirds occurs in the first subject of the finale, bars 48 - 50, and once again there is no preference of either major or minor. Later in the same section, there is repetition at the interval of the major third with the second part of the subject. In bar 71, the material is based on G; eight bars later, the same idea is based on Eb. Whole tone sequencing occurs in the passage leading to the second subject, bars 107 - 110.

Two clear examples of sequencing of this type occur in the first "Movellett", in bars 27 - 30 [repeated down the octave at bars 85 - 88] and bars 55 - 59. The first of these repeats at the whole tone, the second at minor and major third.

However, there is much more of this type of writing in the "Phantasie". A striking early example comes in bars 45 - 49, the passage which concludes the first subject in the exposition.

Figure 40. Phantasie Bars 45 - 49



The rising thematic idea combines tritone and perfect fourth. In addition, bars 45, 47, 48 and 49 contain unconventional chords on the second beat. These can be explained in terms of their symmetry. However, these structures are formed in part as a result of an accented auxiliary note in violin 2 and this resolves on the final quaver of the bar to create a conventional seventh.

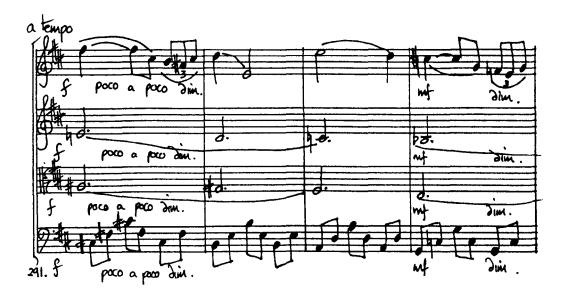
Sequential writing continues in the transition, bars 52 - 59, where the material is transposed down a minor and then a major third. This is followed by sequential repetition in the second subject which begins in Ab in bar 61 and is then stated in C from bar 70.

The development begins with a combination of second and first subjects in bars 93 - 97. The former begins on the original Ab, the latter on G. The two ideas are then repeated on D and C# respectively, thus forming a tritonal relationship. Later in the development, bars 115 - 135, the first subject is treated sequentially. At this point, the opening grace note figure is omitted. The starting note of the three playings of the theme are D in 115, C in 123 and Eb in 131. Therefore, the sequencing does not have a regular pattern.

In the middle part of the slow section of the work, the thematic material is again subject to a tritonal repeat.

Figure 41 overleaf.

Figure 41. Phantasie Bars 291 - 296

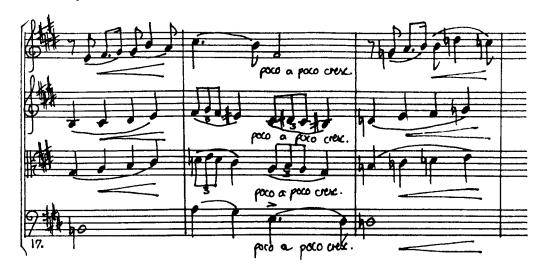


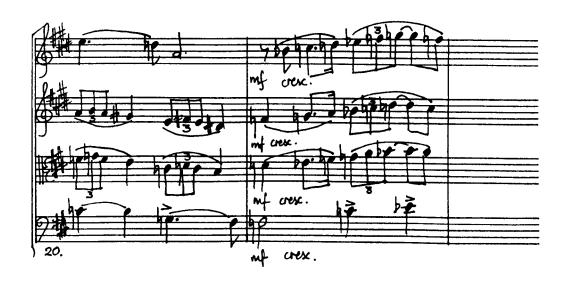


In the first part of the first "Idyll" there is repetition at the interval of the minor third, initially in bars 4 - 5 and then in bars 17 - 21. The latter results in a tritonal outline.

Figure 42 overleaf.

Figure 42. Idyll I Bars 17 - 21





The second "Idyll" opens with an eight bar phrase which is immediately repeated down a minor third. Perhaps of even greater significance, though, is the passage which concludes the piece, bars 97 - 105. Here, the falling major thirds are highlighted by the straightforward, harmonic writing.

Sequences at the interval of a third are used in the final piece too, bars 187 - 202(1). Initially, a rising seventh figure in violin 1 marks the start of the sequencing on D, F and Ab. From bar 196(2) the end of this idea, the falling whole tone is then taken up as the basis of further sequential writing based on rising tonic axis pitches, Bb, Db E, G, Bb and C#. It is no coincidence that the main tonal relationships of the "Idylls" are minor and major thirds; the sequencing cited reinforces this.

In the first movement of the E minor quartet sequences at the interval of the whole tone occur in the development in bars 149 et seq. and 173 et seq. These passages are relatively unemphasised but the writing in the recapitulation from bar 215 is very prominent. Here, a two bar rising phrase is repeated up a major and a minor third. This is followed by a falling sequence built on a one bar idea which falls in axial thirds. Axial thirds are used in the recapitulation of the second subject. From bar 256, the thematic material rises, beginning on G, Bb and Db in violin 1. At the end of the movement, there is another passage of sequencing, half way through the coda, bar 309 et seq.. Here, the thematic idea in violin 1 is started on C**, G and D which puts together tritone and perfect fifth. It is perhaps significant that the tritonal repeat is not fully sequential as the lower parts are independent in bars 309 - 310.

Following the opening chords of the second movement, the music becomes sequential. In bars 4 - 9, a two bar phrase is begun on Db. C and Bb. Later in this first section, bars 42 - 45, the main thematic idea is restated at its original pitch, starting on C, and two bars later it is started on F#, thus forming a tritonal relationship.

The second part of this movement begins with a four bar phrase which is immediately repeated up., a major third, bars 63 - 70. The same interval is used for the start of the repeat of section A from bar 97. The opening chords are followed by the thematic material that was treated sequentially before, from bars 4 - 9, but this time these sequences are replaced by a restatement of both chords and theme in bars 102 - 106, moving up a major third.

Two whole tone sequential passages occur in the third movement. In bars 49 - 51 of section A all parts move up, the 'cello beginning on G, A and B. At the beginning of the coda, bars 123 - 125, the upper parts are almost fully sequential. The starting pitches of violin 1 are A, G and F. The 'cello retains a pedal A with a trill at this point.

Unconventional sequencing occurs near the beginning of the finale, bars 24 - 29.

Figure 43. E minor Quartet IV Bars 24 - 29



Initially, the idea is repeated up a minor third and then it is repeated in an altered form up a whole tone. Whole tone repetition is a feature of the following passage which is a rhythmic compression of the opening idea of the movement. Violin 1 and viola state the theme on B in bars 30 - 37. This is then repeated in bars 38 - 45 on C#.

From this examination of sequential writing, it is possible to see that Bridge uses intervals other than fourths and fifths for repetition. Thirds and whole tones are particularly favoured. Another feature of this transitional sequencing is the irregular patterning so that material is repeated at more than one interval, for instance up a major third and then up a minor third from that.

Within a conventional thematic style of writing, Bridge brings about certain changes which alter or abandon diatony. These changes are sufficiently numerous to suggest that there is a rationale governing these alterations. From my study of the quartets, it seems that symmetry lies at the basis of such writing.

The first subject of the first movement of the G minor quartet has a conventional lyricism but it lacks the sharpened leading note that characterises the minor mode. As will be discussed in chapter 2, the initial presentation of the theme has an ambiguous symmetry on A/Eb and A/C#/Db. It is only in the recapitulation that the theme is presented in its fully symmetrical order.

The second and third movements have pentatonic ideas.



Figure 44. G minor Quartet II Bars 1 - 2(1)

contd.

Figure 44 contd. G minor Quartet III Bars 27 - 32



The pentatonic scale forms a symmetrical division of the octave. Although this scale is the basis of much ancient music, it had been replaced by the diatonic scale in western music until the end of the nineteenth century when composers such as Debussy and Stravinsky revived its use. The opening theme of the second movement is centred on a pentatonic scale on B while the first part of the first subject of the finale is centred on A. The continuation of the finale theme introduces C but this can be explained as an accented auxiliary note. The second part of the first subject begins in bar 63 and this is also pentatonic. It leads to thematic writing in violins 1 and 2 which has major third outlines. [See chapter 2.]

The third "Novellett" opens with two four bar phrases, the first of which is symmetrical and the second being based on symmetry.

Figure 45. Novellett III Bars 1 - 8



The first phrase uses the following pitches, arranged in scalic order

Eb F G Ab Bb C

22122

The second phrase is based on the scalic arrangement below but including Ab -

F G A Bb C D

221 22

The pitches of the two phrases put together continue the symmetry -

Eb F G Ab A Bb C D

2 2 1 1 1 2 2

Eb is the tonality at this point.

The main theme of the first section of the "Phantasie" is similar in construction to that of the first subject of the first movement of the G minor quartet. Both are in the minor mode and both avoid the sharpened leading note. The "Phantasie" theme is more clearly symmetrical from the outset being based on the following pitches -

Ab Bb C Db Eb F

2 2 1 2 2

As if to reinforce the use of symmetry, Bridge uses it in the rising scale in bars 35 - 37 which leads to the first climax of the first subject.

Figure 46. Phantasie Bars 35 - 37



A scalic arrangement of the thematic pitches used here is -

C D E F G Ab Bb C

2 2 1 2 1 2 2

The third "Idyll" has a main theme based on pentatony. [B and F lie outside this.]

Figure 47. Idyll III Bars 8(2) - 15



D is the centre of symmetry -

DEGACD

2 3 2 3 2

The first playing of the main theme of the E minor quartet is fully chromatic and the pitches have a C to F# outline when they are placed in scalic order.

Figure 48. E minor Quartet I Bars 1 - 4



F# G G# A A# B C

1 1 1 1 1 1

This is the only version of the theme that is fully symmetrical as, generally, the idea leads onto E which breaks the pattern. One notable exception to this though is the passage that leads to the

transition, bars 24 - 27, where the theme is stated as above twice as E is reserved for the start of the new section.

The theme of the middle section of the second movement has a symmetrical construction, achieved by using A natural in an Eb tonality. Its pitches have a symmetry on C. The repeat of the theme from bar 67 has a symmetry on E and thus the two main tonal pitches of the quartet are brought together once more.

The main theme of the third movement is pentatonic.

Figure 50. E minor Quartet III Bars 1 - 11



The full range of pitches used in this theme is -

ABC#DEF#

22 122

This comprises two pentatonic scales a fourth apart -

DEF#AB

A B C# E F#

Thus Bridge combines radical and traditional elements.

The second theme in this movement is built on pitches with an A to G symmetry. This reinforces the tonal implications at the start, bar 72 et seq. as the bass is centred on G and the theme begins on A. In scalic order these pitches are -

ABCDEFG

212212

One theme in the finale has a symmetrical ordering, pointed to by the whole tone accompaniment figure.

Figure 51 overleaf.

Figure 51. E minor Quartet IV Bars 110 - 111



In ascending order the pitches are -

B C# D# B F# G#

2 2 1 2 2

However, these pitches also comprise added fifths -

E B F# C# G# D#

and so Bridge combines radical and traditional once more. After a repeat of this thematic fragment in bars 116 - 117, there is a passage based on another symmetrical order in bars 120 - 127. The whole tone accompaniment figure quoted above is continued and put with sustained chords, mostly A major9. The full complement of pitches in this eight bar passage is A C# E G B which can be reordered as -

EGABC#E

3 2 2 2 3

[The F#s in bar 123 are sufficiently transitory in the context of the passage to be discounted.]

Radical Structuring.

There are elements of Bridge's style that lie outside conventional ordering. First of these is tonality. Certain passages in the G minor quartet are so chromatic that they avoid a tonal base. Generally they are short-lived. In the first movement, there is one such passage near the start of the first subject, bars 10 - 11.

Figure 52. G minor Quartet I Bars 10 - 11



This follows clear tonal progressions in the bass in bars 6-9. A similar pairing of convention and radical occurs in the transition. In bars 30-36 there is conventional sequencing, the bass rising from Bb in 30 to F in 33 and C in 36. However, from 30(2)-32 the music becomes highly chromatic.

Figure 53. G minor Quartet I Bars 30(2) - 32



This writing is repeated at the new pitch at 33(2) - 35.

Tonal reference is avoided in the second movement in the two bars which lead to the restatement of the second theme of the first section.

Figure 54. G minor Quartet II Bars 31 - 32



This passage is repeated in bars 43 - 44.

In the finale, the last thematic fragment of the first subject is presented in a non-tonal context.

Figure 55 overleaf.

Figure 55. G minor Quartet III Bars 67 - 70



Although this passage avoids tonal reference, it is subject to conventional sequencing as the first two bars are immediately repeated down a fourth. This thematic fragment comes many times in the course of the movement and on many pitches. The movement's coda is strongly tonal from its beginning in bar 349 to bar 370 but in bars 371 - 373 the idiom becomes chromatic again. This proves to be a brief diversion before the conventional ending in G minor.

As will be discussed in chapter 2, the main tonalities of the G minor quartet form a symmetry around the A/Eb axis. This axis, in turn is the basis of much of the inner working in the quartet and in this way Bridge draws together the large and small scale structures of the work. The main tonalities of the "Novelletten", Eb, G and Eb, comprise major third symmetry with F as the central point. There is insufficient evidence, however, to support the premise that this pitch

is an underlying structural force in the work as a whole, in fact its importance seems to last for only a few bars at the beginning where the attempts at the opening theme are started on F in bars 3 - 11. The theme is eventually presented in full on Bb from bar 19 and so the use of F in the opening bars can be explained as dominant preparation. There is further reference to the pitch at the end of the first section, where the theme comes to rest on F, G and Eb in bars 38 - 41(1). Another use of the pitch occurs in bars 69 - 71 where the emphasised chords from bars 35 - 36 are restated at a new pitch. This time the final chord is F major. However, in the course of the work, F does not feature as an important tonality and the implied harmonic and thematic importance of the beginning of the first "Novellett" is apparently discontinued.

Although the tonal structuring in these miniatures is fluid, particularly so in the first piece, there is no extended period when the chromaticism becomes so intense that the sense of tonality is completely lost.

The "Phantasie" has F and D as its main tonalities and as both are in the same tonal axis there is no central pitch or axis between them. Nevertheless, the minor third is an interval that divides the octave symetrically. Like the "Novelletten", there is much ambiguity in the tonal structuring but there is always a sense of the music moving towards a pitch. The only passage that seems to defy tonal

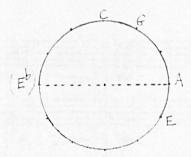
description is the sequential one mentioned earlier and quoted in Figure 40.

The three main tonalities of the "Idylls" are C# E and C which form an assymetrical arrangement but the pitches form minor and major thirds which are symmetrical divisions of the octave. Like its two predecessors, the music is tonally fluid but there is no evidence of a complete avoidance of tonality. Perhaps the most advanced use of tonality comes at the beginning of the second piece where Bridge introduces bitonality.

The main tonalities of the Quartet in E minor are E C and A, an assymetrical pattern. However, G is an important pitch too as it is used for the second themes in the first, third and fourth movements. By including this pitch with the other three, a symmetrical arrangement is formed with D at the centre. Eb is the second tonality of the second movement and this, as the counterpole of A, does not alter the symmetry.

Figure 56 overleaf.

Figure 56.

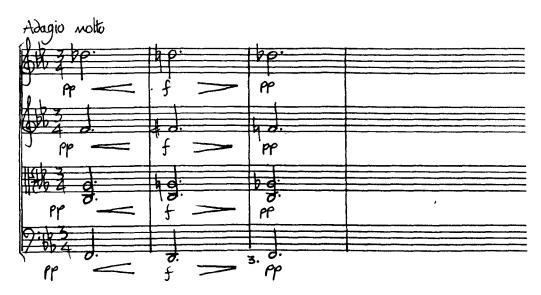


Although there is some evidence to support a premise that D is a governing factor in the inner working of the quartet, it is not conclusive. For instance, the opening chromatic theme of the introduction, which becomes the first subject of the first movement and the most important theme of the work, does not have a symmetrical arrangement. Also, there are no important climaxes on D in the first movement. However, the placing together of E and C as tonalities in the first subject forms a symmetry round D. The second subject theme begins on D, followed by a rising ninth to E to highlight the pitches. Initially, this theme is played over a pedal D but this version, from bar 51, is in anticipation of the section proper which begins in bar 66 in G tonality, conventional for the subject. Later in this section, though, bar 77 - 88, D is used as a tonality.

The second movement begins in a curious manner, with three isolated chords.

Figure 57 overleaf.

Figure 57. E minor Quartet II Bars 1 - 3



The three chords are Db7 in first inversion, D7 and Db7 in first inversion. This placing would seem to emphasise Db but there is an ambiguity here as this chord is in first inversion but the D7 is in root position. Also, the dynamics highlight the middle chord. D is the centre of symmetry of this semitonal progression too. The chords recur in bars 15 - 17, 97 - 99 and 143 - 145. The main theme of the movement begins in bar 26 in C minor but the starting pitch is D as an accented auxiliary. In the repeat of section A, the theme begins in the same way, but then there is a version of the theme which begins on G#, the counterpole of D. [Bars 129 - 136.]

The opening, pentatonic theme of the third movement does not display a symmetry on D but the second theme combines G and A as tonalities at the beginning and these are adjacent to Dom. The circle of Aller.

In the second section of the finale, an important whole tone accompaniment figure on E and D is introduced in bar 94. [See Figure 51.] This figure is important until bar 107 but then it alters to C# and B.

What emerges about the E minor quartet is an implication of Bridge trying out ways of integrating tonality and themes but this work lacks the fuller cohesion of its successor. There are some brief passages in the work that demonstrate a lack of tonal reference. The first of these occurs at the end of the transition in the first movement, bars 44 - 45.

A more extended passage occurs in the development, in bars 116 - 124, where the thematic entries are the only point of reference.



Figure 58. E minor Quartet I Bars 116 - 124

Figure 58 contd.



In the second movement, the opening chords, quoted in Figure 57, create a feeling of uncertainty. In the last two movements there are several passages of tonal ambiguity.

In all of the works for string quartet there are some chordal structures that are impossible to explain in conventional terms. This links with chords based on triads but which can be explained as aspects of symmetry. All the unconventional chords can be explained via symmetry. In the first movement of the G minor quartet a clear progression of such chords occurs towards the end of the transition, at the end of bar 42. This is an isolated homophonic gesture as the texture before and after is contrapuntal and Bridge marks it to be played pesante and with accents in all parts within a forte dynamic level. The first of these chords comprises added fifths, C# G# D# with A as an added counterpole. The next two chords have the same

basis, interlocking major thirds with added counterpole, E G# B# with F# and E# with B G and D#. The presence of tritonal relationships in these chords points to an underlying axis of symmetry, while fifths and major thirds both divide the octave symmetrically.

At the end of the development, there is another such progression in bar 121 which is repeated in altered form in bars 126 - 128(1). The upper parts form a unity over a pedal bass in both progressions. All of the chords, except for the last chord of bar 121, which comprises interlocked major thirds, are made up of interlocked tritone with major third.

The middle section of the second movement begins with writing that is quite chordal. At the end of bars 79 and 81 there are progressions of unconventional structures. Both comprise interlocked tritone and major third followed by two chords of interlocked major thirds. The following four bars, 82 - 85, conclude with triadic moves from Eb major? to A major, a counterpole progression. This particular tritone has great significance in the work as a whole, as will be discussed in chapter 2. Both these passages are repeated several times in the course of the section and the Eb + A progression leads directly to D for the start of the repeat of section A in bars 119 - 120. The second movement ends with a passage that puts radical and traditional in close company.

Figure 59. G minor Quartet II Bars 192 - 195



Bars 192 and 193 end with chords of interlocked major thirds on C and Eb. Each time, they are preceded by a structure of whole tones with a BF outline, B being the tonal goal, and followed by a B minor triad. In respect of the axes of symmetry, C and Eb are dominant pitches and therefore can be said to be replacing F#, the conventional dominant of B. In fact, the movement eventually concludes with a traditional V7 - I progression.

The opening passage of the first "Novellett", bars 1 - 18, employs chords of interlocked major thirds and chords of added fifths but none is in an emphasised position and their use is neither consistent nor regular. In bars 35 - 36, there is an emphasised chordal passage but this comprises traditional triads. Bars 66 - 68 contain a tritonal progression, Eb - A, and a chord of interlocked major thirds which results from an appoggiatura. Therefore, in this piece, the radical chordal structures are few and are placed in relatively obscure positions.

The second piece begins with two conventional chords followed by a series of diminished sevenths in bars 2 - 4. This comprises the introduction which leads to the allegretto of section A in bar 5. This bar ends with four chord structures built on interlocking major thirds and tritones. It leads to a further such chord at the beginning of bar 6.

Figure 60a). Novellett II Bars 5(2) - 6(1)

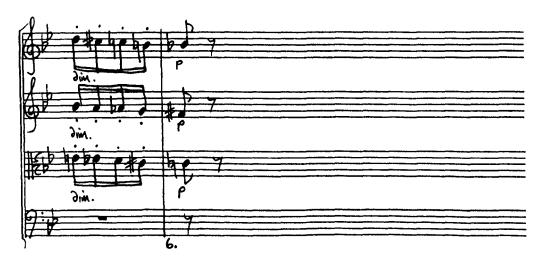
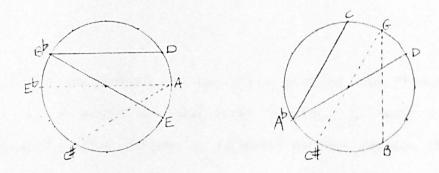
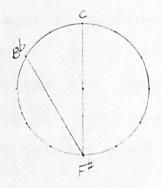


Figure 60b).



Bar 5(2)



Bar 6(1)

The movement ends with a move from a unison C# to a G major triad and in this way the perfect cadence is replaced by the tritone. The final piece ends in an unconventional manner too. The bass in bar 152 implies a perfect cadence in Eb but in fact both the Bb and Eb in the 'cello are part of chord I. The preceding chord occurs at the beginning of the bar and is Db major which does not form a

conventional progression. However, Db is in the same tonal axis as Bb, the true dominant, and so Bridge has achieved a dominant to tonic progression in this rising whole tone.

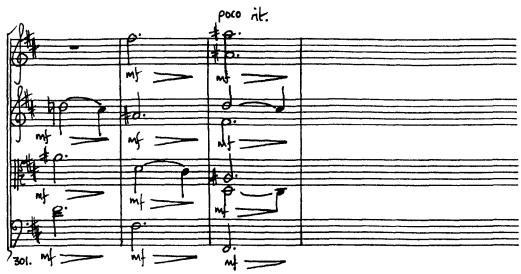
The first subject of the first part of the "Phantasie" is strongly in F minor but the first playing, in bars 2 - 6 is unaccompanied. Then follows an extended perfect cadence in F minor before the repeat of the theme which is approached from the chords in bars 12(2) - 15(1). These triads avoid the tonic chord in root position. This is held back to reinforce the V - I outline at the start of the theme. However, the F minor chord is not preceded by its dominant but by a chord of added fifths, Bb F C G. Each time the theme is presented in F minor in the exposition, this progression is repeated, bars 22 - 23 and 41 - 42. Another unconventional structure occurs immediately after the first playing of the theme in its accompanied version, bar 20(2). Again, the unconventional chord, of interlocked major thirds, replaces chord V at an implied perfect cadence.

The sequences in bars 45 - 49 have already been discussed. [See Figure 40.] Each time, the chord following the tritonal/fourth thematic outline comprises interlocked major thirds with one added counterpole. The chord is in an accented position reinforced by rests immediately before. However, each time, this structure resolves onto a seventh in root position.

The transition begins (bars 51(2) - 52(1)) with a major third progression, from C# major? to A augmented. The latter chord comprises interlocked major thirds. The sequential repeat in bar 55 et seq. omits the major third progression but retains the chord of interlocked thirds. The third playing of the material, bars 58 - 60, uses conventional chords but employs a tritonal progression at the beginning of bar 58, from Bb minor? to Fb major?. In the second subject, a chord of added fifths, Db Ab Eb, is held throughout bars 81 - 84 in the three upper parts.

A significant passage of chordal writing concludes section B of the middle part of the work, bars 301 - 303.

Figure 61. Phantasie Bars 301 - 303



This comprises a major third progression from D to F# repeated three times. In addition, the chord on D is made up of interlocked major thirds. The final F# major triad, in bar 303, leads to a D major chord at the start of the repeat of the first part of the middle section in bar 304. This means that F# replaces A, an axis counterpart, to form the cadence.

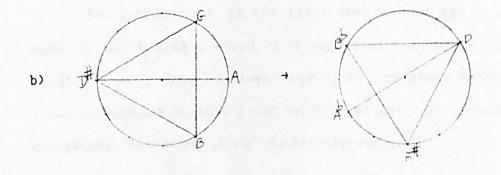
A similar kind of passage concludes the second playing of the main thematic idea of the final section, bars 408 - 414. [See Figure 30.] Chords of interlocked major thirds alternate with E major triads. The use of unconventional chordal structures in the "Phantasie" is more overt than in the preceding work. Such chords are placed at structurally important moments and given more extended use

In the first "Idyll" a tritonal chord progression occurs at the height of the climax of the first section, bars 22 - 24. [See Figure 18.] This comprises a sequential passage and so the initial G - C# progression between the second and third beats of bar 22 becomes D - G# in 23 and A - D# in 24. In the middle section of the piece, interlocked major third chords occur as a result of appoggiaturas in bars 36 - 37. This is repeated in bars 44 - 45 and then treated sequentially in bars 52 - 53.

The unconventional nature of the beginning of the second "Idyll" has already been discussed. It is no surprise that unusual chords feature in this passage too. The first phrase ends with a progression that involves two interlocked major third chords with added counterpole.

Figure 62a). Idyll II Bars 5 - 8





The second piece ends with a major third progression, D# + B + G in bars 97 - 100. This is followed by a tritonal move from A to D# in bars 101 - 103. D# leads to B once again, in 104 but this does not begin the major third progression for a second time. Instead, B7 has a quasi dominant function as it leads, in part, to a resolution on E in the last bar. This is not a complete resolution as E is placed with C and the tonic chord is avoided.

Whole tone progressions mark the start of the second theme in the final piece. In bars 58 - 60, the music moves through A major/minor? to B major/minor? to C# major/minor?. A sequential repeat in bars 66 - 68 employs D major/minor? to E major/minor? to F# major/minor?.

The introduction to the first movement of the E minor quartet ends in bar 4 with a chord of G augmented consisting of interlocked major thirds. This resolves onto C at the start of bar 5 but the triad is avoided at this point as G is absent. By putting just C and E together, the major third identity is retained.

The transition in the exposition ends in bars 49 - 50 with a cadence onto D.

Figure 63. E minor Quartet I Bars 49(2) - 50



The first of the chords is F A C# with G which can be explained as a chord of interlocked thirds with an added counterpole. This leads to an augmented sixth chord at the end of 49 which can be described as two pole/counterpole axes. a whole tone apart. This resolves onto D major in bar 50.

A passage in the second subject, bars 73 - 75, combines major third progressions with structures of interlocked major thirds on the beat. The C to E progression in bar 73 leads to E to G# in bar 75, separated by F# to D in bar 74. The major third chords in 73 and 75 are C/B# E G# while that of bar 74 is D F# A#. Thus chords and progression are interlinked. The passage is repeated in bars 263 - 265 in the recapitulation where the pitches are a major sixth higher.

At the second climax of the development in the first movement, bars 154 - 159. Bridge reiterates a C minor to Ab augmented progression. This is another example of progression and chord being linked. This writing is particularly clear as there are no other chords in these bars.

Figure 64. E minor Quartet I Bars 154 - 159



This passage is important also because it reflects the C E pairing of theme and tonality of the first subject. Chords of Ab and C are used again shortly, in bars 168 - 170, and, perhaps even more significantly, to end the development, bars 199 - 203(2). At this point, Ab, as an axial replacement for F, forms the plagal cadence to end the section.

The first subject of the recapitulation draws to an end in bars 221 - 223 with repeated diminished seventh chords. Again, Bridge highlights its use by eliminating other, distracting chords. The progression combines perfect fifths, minor thirds and whole tones -

$$D \rightarrow A$$
, $B \rightarrow F#$, $G# \rightarrow D#$

while the chords themselves comprise minor thirds and tritones.

There is a return to the C E Ab structure in the closing bars of the movement. The final progression occurs in bars 319 - 320 with a move from C major7 to E minor. Again, this forms a plagal cadence as C replaces A via the axial third relationship.

In the third movmement, the climax at the end of section B comes in bar 104 with a chord of added fifths, Bb F C G D A. It is followed by a kind of B13 at the end of the bar and then by a conventional C major triad in bar 105. This is a clear example of the way that Bridge melds traditional and radical structures in his music.

The quartet as a whole shows radical progressions and chords put together in an unconventional way. Certain passages overtly exploit unusual structures while on other occasions, the two extremes of Bridge's style are put in close context. One new feature of this work is the way that chord and progression are interlinked.

In tandem with Bridge's exploration of tonal procedures, was a new approach to thematic writing. Although the flowing, lyrical style continued up to and including the G minor quartet, a more motivic and terser idiom was emerging, one that would complement tonal relationships more fully. This interweaving of themes and tonality in the G minor quartet is discussed in depth in chapter 2. However, this type of writing is evident early in the first subject of the first movement.

Figure 65. G minor Quartet I Bars 8(3) - 13



Figure 65 contd.



The transition opens with similar writing but it is perhaps more clearly evident in its appearance in the development, bars 114 - 116.

Possibly the best example of motivic writing in the quartet is the material of the introduction to the second movement which is inextricably bound up with the fluctuating tonality.

Thematic ideas of this sort are a part of Bridge's style from the beginning. The thematic writing in section A of the second "Novellett" has this character and it accompanies an absence of clear tonal reference.

Figure 66. Novellett II Bars 5 - 8



The "Phantasie" displays more conventionally lyrical writing but the sequencing in bars 45 - 49, mentioned previously for its unconventional patterning, is motivic in nature. The "Idylls" continue with this expansive style although much of the material could be the basis for motivic treatment. For instance, in bars 10 - 12 of the first piece, a figure with a major third outline could be developed in this way but instead it is fitted into a more conventional turn of phrase.

Figure 67 overleaf.

Figure 67. Idylls I Bars 10 - 12



The opening idea of the E minor quartet has motivic possibilities but its use in the rest of the first subject is more traditional.

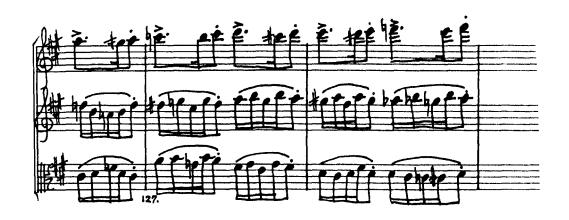
More radical is its appearance at the start of the transition, bars 28 - 31.

Figure 68. E minor Quartet I Bars 28 - 31



Development sections in the quartets do not display the motivic writing that one might expect but one passage of developmental writing that does treat earlier material in this way is the coda at the end of the third movement. A little further on, the three upper parts take on this style with violin 2 and viola having palindromic motives.

Figure 69. E minor Quartet III Bars 126(2) - 128



The ostinato is a technique that reflects motivic writing and an example of this occurs in the finale. It is introduced in bar 94 and comprises the whole tones D and E. From bar 108, this is altered to B and C#. [See Figure 51.]

From this discussion of the early works for string quartet, certain general points may now be made. Firstly, all of the works show certain similarities of approach, there is no stylistic

revolution. This is because all of the works are constructed out of a blend of conventional and less conventional techniques. In the early works, especially the miniatures however, the "Novelletten", "Idylls" and "Phantasie", it is the conventional techniques that are more dominant. Nevertheless, many of these are put into more radical contexts and thus developed. Such examples I have described as being transitional. Some passages are highlighted for their obviously more forward looking nature and these I have discussed above. What is lacking, seemingly, in these early works is the fusion of tonality with themes and chords that marks out the G minor quartet. There is evidence that Bridge was working towards this but the earlier pieces lack a sense of completeness in this respect. The more intense style of the G minor quartet bears witness to this development in his style, as will be discussed in the next chapter.

String Quartet No.2

Eight years passed between the completion of the E minor quartet and the starting of the G minor quartet in the summer of 1914. In the intervening years, Bridge maintained his output of chamber works, the significant additions being the slow growing Sextet and Piano Quintet, the three sets of "Miniatures" for piano trio and two more Cobbett works. The first of these was the prizewinning Phantasy for piano trio of 1907 and the second was the Phantasy Piano Quartet which was commissioned by Cobbett in 1910.

A fourth Cobbett Chamber Music Competition was advertised in the May edition of the "Musical Times" -

'Mr.W.W.Cobbett offers a prize of £50 for the best original String Quartet (in Sonata, Suite or Phantasy form) in which the violin parts shall be of equal interest and importance. Entries close on December 31.

Mr.Cobbett will himself examine the manuscripts, selecting a few to be performed before a small select audience, who will make the ultimate adjudication by vote.' <1>

In the end there were two prizes awarded, for a phantasy quartet and for a sonata quartet. Bridge won the latter, despite submitting his work after the official closing date. Apart from this recognition, the quartet was also highly regarded by performers, audiences and critics and it had numerous performances in its early years. It was first performed by the London String Quartet on 4 November 1915 at the Aeolian Hall, London. A lengthy article appeared in "The Times" on Saturday November 6 which not only praised the work itself but promoted Bridge as an established composer of chamber music, and rightly so as we can now see this work as being at the pinnacle of the early Bridge style, indeed, a dualistic piece, looking both backwards to the lyricism of the early style and forwards to the increased chromaticism and motivic interplay of the later works.

Although the quartet is dated March 1915, it is very probable that the work was under consideration for some time before that. A number of chamber works were written over a period of years or later subject to considerable revision. Also, the period of the war was not a fruitful one for Bridge, a fact which supports the view that it may have been largely written before the given date. Nor is there any strong impression that

this music was borne of the tragedy of war. Bridge was greatly affected by the trauma but this work does not particularly reflect this in the quality of its themes. The main tonalities of the first two movements are minor but there is no sense of desolation about this music. The first subject of the first movement has great power allied with the sadness of the G minor. Section A of the second movement, meanwhile, has an almost quixotic character. Furthermore, there is a sense of resolution in the work as a whole and, moreover, it is the triumph of the major mode over minor.

The G minor quartet is in three movements rather than the usual four. They are an allegro ben moderato in sonata form, a quasi scherzo in ternary structure and a fast finale, prefaced by a molto adagio introduction, which combines sonata and arch forms. The absence of a slow movement may perhaps be explained by the fact that the first movement is not as fast as one might expect and it is in a rather serious mood; even the second subject, for all its lyrical quality, does not move into the lighter mood one might expect. To include a slow movement after the sonata might have diminished its power and intensity. Such a problem must present itself where the introspective side of the minor mode is used for the first movement. However, it is not unusual to invert the order of the middle movements but Bridge discards that idea, choosing instead to write an andante middle section in the scherzo and a slow introduction to the finale. It is possible that Bridge simply did not have time to write a slow movement, given that the work was

submitted well after the closing date of the competition. This premise may be borne out by the more repetitive and reworked style of the finale.

However, despite the missing movement, the overall structure has a satisfying balance. Similarly, the individual movements are well gauged in terms of section lengths and there is a great measure of success in the marrying of different ideas and moods. In these ways, the second quartet shows a marked development from the first.

In addition, there is a sense of unity in the work. This is partly as a result of the organic nature of the language and partly as Bridge reworks material from the first movement in the finale, but there seems to be another, underlying factor that brings together the disparate elements of the quartet. There is no overt evidence to support this but there are certain aspects of the music that are unexplainable in conventional terms. Some chord structures bear this out particularly well. They are not based on traditional triads and so the assumption is that they are formed from specific intervals.

A good example of a passage containing such chords occurs at the end of the development in the first movement.

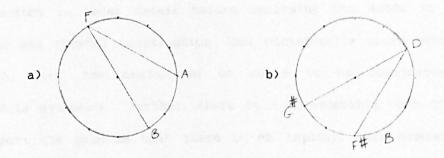
Figure 1 overleaf.

Figure 1.



three parts, which can be considered as one as they move in the same rhythm. The 'cello is rhythmically independent and while the pedal E can occasionally be shown to form conventional chords with the upper parts, this is neither consistent nor regular. The resulting structures in the upper parts cannot be described in conventional terms but their intervallic makeup comprises an interlocked tritone and major third. This particular structure is frequently used in the piece as is the augmented chord, which may be regarded slightly differently in the light of the passage under discussion, particularly as augmented chords often have an added counterpole or fifth. The augmented chord comprises interlocked major thirds and when a counterpole is added to one of the pitches, there is an obvious relation to the structures in bars 126 - 128(1).

Figure 2.



Chord, bar 126(1-2)

Chord, bar 145(3-4)

Example b) is another chord at a structurally important moment, the final chord of the recapitulation of the first subject. It is part of an extended crescendo but the music is broken off briefly after the chord before a climactic return of the end of the transition on a D major triad.

Both of these structures recur frequently in the music and there are other structures which, because of their content, are most clearly explained through their intervallic makeup. In every case, the intervals used are those that divide the octave symmetrically, as outlined in chapter 1.

In such highly organised music, it is not unreasonable to suppose that other examples of intervallic symmetry will exist and, indeed, there is evidence to support this premise in the tonal relationships and in the thematic writing as well. In the course of this chapter I shall examine

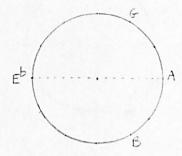
the main tonalities of the work and of each movement. I shall then study each section in tonal detail before analysing the music in terms of thematic and chordal construction (and occasionally chord progression). At each level, the music can be shown to be constructed around intervallic symmetry. Further, there is a considerable body of evidence to support the premise that there is an implicit axis symmetry, A/Eb, underpinning the quartet.

As to whether Bridge was actively concerned with organising his music in this way, there is no concrete written evidence and it is possible that he was just using sounds for which he had a preference. However, such a chromatic work is clearly at the forefront of the sort of tonal developments that were taking place in Europe in the early years of the century.

The main tonalities of each movement of the work are G, B and G which have a major third relationship. Apart from the fact that this interval divides the octave symmetrically, the placing of these pitches on the circle of fifths tentatively suggests a symmetry round the A/Eb axis.

Figure 3 overleaf.

Figure 3.



Internal relationships are frequently the minor third, another interval that symmetrically divides the octave. The first and second subjects of the first movement are based on G and Bb, both tonic pitches in the work. The middle movement uses B and D as the main tonal pitches and these have a dominant function in the work. E minor and G major form a tonic minor third in the finale. There are no tritonal relationships in the tonal framework. It is significant though that major and minor thirds from G are both used, B,Bb and E. The semitonal relationship that results is much used in the work; in the first movement there is much made of the D/Db relationship to G.

By placing all the main tonal pitches of the three movements on the circle of fifths, there is further evidence to support the premise of a hidden A/Eb symmetry in the work. [Bb as a counterpole to E does not affect the basic arrangement.]

Figure 4 overleaf.

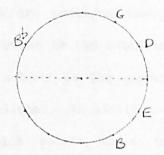


Figure 4.

The strong tonal framework belies the ambiguity which features to such a degree in the quartet. This combination of conventional and radical is not new to Bridge's style, indeed it is present from the first works for the medium. Much of the writing in the present work chromatically shifting and therefore avoids clear tonal reference. At times. Bridge creates ambiguity by using more than one prominent pitch and thus implying two or even three possible tonalities. A good example of this technique occurs in the recapitulation of the second subject in the finale. The second statement of this theme begins in bar 255 and it is based on E, the first time that the idea has been played on the tonic. However, there is a strong tonal pull to D as the viola sustains this lowest sounding pitch as a pedal for eight bars from 255. Significantly, D and E straddle A on the circle of fifths and this may represent a way of implying the underlying symmetry of the work. Apart from the tonal polarity of this passage, there is considerable chromaticism in violin two and 'cello which weakens the effectiveness of the tonal anchors.

there are passages that are quite conventional and there is little or no doubt as to the intention. One such example is the beginning of the second subject in the exposition of the first movement where Bb is clearly established. In addition, there is much sequencing in all three movements which points to a traditional tonal procedure. However, repetition of any kind is never baldly executed by Bridge and this type of writing is subject to considerable variation. Another conventional feature of the music is the fourth/fifth relationship but here too the traditional is put into a new context as implied tonal reference is obscured by chromaticism and fluid harmonic progressions. The same can be said of some of the chords which are essentially common triads, sevenths or ninths but frequently their context is such as to conceal and to avoid the expected harmonic progression.

Two pages of sketches exist for the work. Both are twelve stave and contain short passages, some of which are in full four parts. There is some crossing out and correcting, all of which suggests that these pages were used at an early planning stage when ideas for the first movement were being tried out. It is obvious that this is material for the second quartet as many thematic outlines are similar and in some cases identical to those eventually used in the work. It is possible to order the pages as one has a definite thematic progression towards a fairly accurate version of the opening of the first subject in four parts. The second page opens with an unaccompanied repeat of this theme, and this may indicate that this was the continuation page. Nost of the

working is in 3/4 time; there is one brief passage in common time and a seven bar passage in four parts in 9/8, both on the second sheet. Bridge eventually chose 4/4 for the first subject, perhaps for its greater expansiveness and less quixotic character. Nost of the two pages are in F minor. As this is the main key of the much earlier "Phantasie for String Quartet", it is possible that Bridge felt he had not adequately explored the relationships presented by this tonality. However, G minor proved to be more suitable, possibly because it opened up the D/Db fifth/tritone conflict in the bottom register of the 'cello, a relationship that he introduces there in the eighth bar of the first movement. On the second page, the 9/8 passage is in F# minor but this is not obviously first subject material.

The first page begins with a ten bar passage, the first six bars of which are in three or four parts, the texture reducing to two parts in bar 7 and the last three bars comprising unaccompanied theme.

Figure 5.

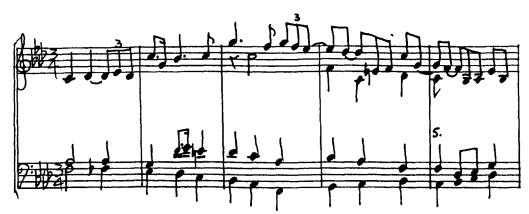


Figure 5 contd.



Although this theme is considerably different from the final version, not least in its outline which starts with a rising figure, the writing in the second and third bars is recognisably first subject material. Unlike the final version, the idea does not comprise a reordered tritonal outline of added fifths, due to the use of E natural and D natural. In the final version, the leading note is never sharpened, to retain the symmetry. Harmonically, the sketch passage is quite different and there are fewer chords as the part writing is more sparse. Another feature of the sketch is the repetition of the theme down the octave from the first playing. This begins in bar 7. Bridge avoids this kind of obvious transference of material in the quartet. Other similarities between this and the G minor first subject are the use of sequences, bars 4 and 5 and the descending scale in the bassline.

The end of the first passage is marked by multiple vertical lines on the manuscript. The second passage is eight bars long and introduces

new ideas and reworks some from the previous passage. Firstly, both staves are now in the bass clef and it seems likely that the lower line is a second working of the same material. The shape of the thematic line is more like that of the quartet for it begins by descending and it is now closer to being a series of added fifths with a tritonal outline. Db/G. Only Gb lies outside this.

Figure 6.



As before, the material is treated imitatively. A new feature is the grace note figure in bar 3 which is used in a different form in bar 12 of

the quartet. This passage is marked by an absence of a harmonic texture and sequences. Both of these first two passages appear to be trying out the first subject theme although neither begin on the tonic chosen for the final version.

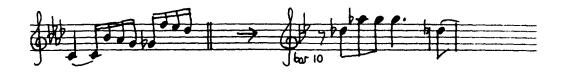
The third passage, of aproximately six bars, is a far more dramatic gesture than anything tried so far.

Figure 7.



Texturally this is more like the opening of the work itself. The rising seventh figure is repeated sequentially, up an augmented fourth, and it could be that this idea becomes the idea in bar 10 of the quartet.

Figure 8.



The dotted figure at the start of bar 2 of the sketch has been included in all the workings so far and is retained in the quartet.

Figure 9.



Surrounded by crossing out, a two and a half bars follow this in the sketch. Harmonically sparse, this third passage is nevertheless more advanced than anything so far on the manuscript. Although the chords themselves are explainable in conventional terms, their arrangement is such as to create ambiguity. The tonic to dominant in bar 2 comprises Ic in the major mode, leading to the same chord with added seventh and then to an augmented sixth on C as a kind of dominant which remains

unresolved. One further chord in the passage is even more ambiguous. This is an eleventh chord, a structure Bridge favours in the quartet for its ambiguity. A single dividing line separates this passage from another working of the same rising seventh idea in octaves and now in the bass instruments.

The first page of the manuscript ends with two passages that are quite similar, of six and eight bars.

Figure 10.



These are much more like the opening of the quartet, thematically, harmonically and texturally. Both of these versions in F minor begin on Eb, to emphasise the flattened leading note that is a feature of the G minor version. The opening bar of each working is different although the continuation is the same. This points to Bridge's difficulty with the starting of this theme, which only has the necessary space and time in the 4/4 that he eventually used. An important feature of both sketch passages now is the thematic pitches comprise added fifths with a Db/G outline. The quartet is a whole tone higher than these sketches and so the theme has an A/Eb outline. Harmonically, the two sketches are similar and it represents much of the quartet in a similar context.

The second page opens with an unaccompanied statement of the first six bars of the first subject in F minor, beginning now on the key note for the first time. The rest of the page may well be working for the quartet but, if it was, none of this material was finally chosen. Some chordal structures are followed by two thematic figures in common time, eight bars of fully worked four part writing which may have been intended as a continuation to the beginning of the first subject and finally seven bars of completed working in F# minor in 9/8. There is some indistinct F minor writing at the foot of the page.

These two pages of sketch reveal, in part, the way that the first subject of the first movement of the G minor quartet evolved. What is

clear, is that ideas were also being tried out elsewhere. The passages of four part writing on the second page, for instance, contain few alterations. Some other pages of manuscript that have survived contain fragments of different works, often from different periods of his working life. The assumption is that he worked on several pages of manuscript at a time, using what was to hand.

The quartet opens with a highly developmental first subject and because of its nature I have discussed it in some depth. Intervals used for overall tonal relationships are also used as the basis for much thematic and chordal structuring and to clarify this I have discussed each section of the work in two ways, its tonal architecture and internal working.

Figure 11.First Movement. Exposition. First Subject



Figure 11 contd..

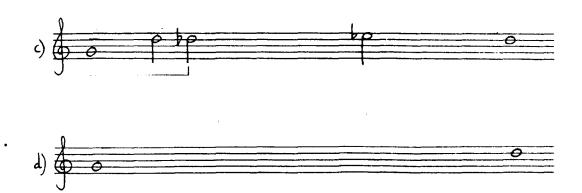


Figure 11a) shows all the tonalities of the section and indicates their relative importance by the rhythmic value ascribed to the pitch. It also shows that the section has a conventional I to V progression, G to D, but that the method of getting from tonic to dominant is quite unconventional. The highly chromatic style is obvious immediately as the forte double stopped G minor chord at the beginning of bar 1 is followed by fluid chromaticism. However, the second and third tonalities, C and D, conventional subdominant and dominant, are established by V - I bass lines. Nevertheless, the harmony at these points, bars 6 to 7, does not entirely support these implied tonalities. Dominant D is replaced by Db at the first climax at bar 8(2-3). This is the first indication of the D/Db interaction with G. This C/D/Db progression of bars 6 to 8(3) is rearranged at bars 14 - 19(2) as D/C/C#.

The second climax of the first subject comes at bar 19(3) on Eb which has a major third relationship to G. This may have been anticipated by the use of the bass line A in 12 - 13 which has a significance by virtue of its length but which lies outside the C Db/C# D pattern of the passage. Eb not only links to the G - B relationship of the overall tonal framework of the quartet by forming interlinked major thirds, but it also anticipates the Bb of the second subject as its subdominant. This early use of Eb may also be a reference to the Eb/A axis as the basis of symmetry of the work, especially as A is placed at the top of the texture, in violin two.

Figure 12.



Figure 11b) shows a number of less important tonalities removed and now it is possible to see three adjacent tritonal relationships underpinning the first subject. All three are much used in

the thematic and harmonic structuring of the movement as a means of unifying the music through symmetry. In addition, the three axes represent the tonic, dominant and the underlying axis of symmetry of the work.

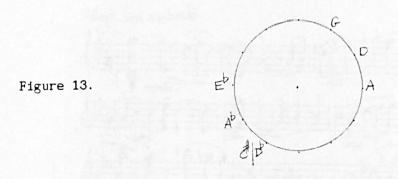


Figure 11c) further condenses the tonal framework and shows Db and Eb as chromatic inflections of D, the goal of the section.

It is perhaps not surprising in music of such an organic nature that this is the only occasion that the first subject occurs in this form. The fluidity of the style is clear in the thematic writing at the beginning. Although the music has a number of points of repose, the theme cannot be said to be constructed in conventional phrase lengths. Rather, it suggests a continual unfolding and it is not clear where it ends as it passes from first to second violin and back in bars 9 - 12. However, as the theme comes to rest on G at bar 10(3), I consider it to

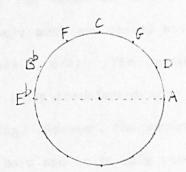
be useful to examine the thematic construction from the beginning up to that point.

Figure 14.



For most of the theme, up to bar 8(2), the writing is based on Eb/A tritonal symmetry. This is clear if the pitches are placed on the circle of fifths.

Figure 15.



C occurs at the centre of this symmetry and this may explain the early, brief use of that pitch as a tonality; it is the first new tonality after G. The premise that the theme is constructed around an axis of symmetry explains why F replaces the leading note F# as the latter falls outside the symmetry. The premise also ties in with the A/Eb symmetry of the tonal architecture of the work and with the use of Eb as an important tonality in this section.

As mentioned above, there are a number of points of repose in the theme and in bars 1 - 8 these occur at bar 1(G), bar 2(A), bar 4(D), and bar 8(Eb). These four pitches demonstrate the interaction of fifth and tritone, G,D and A,Eb and is therefore a variant on the G,D,Db relationship mentioned earlier. In addition, the thematic emphasis of Eb in bar 8 is perhaps in anticipation of the tonal climax on that pitch at bar 19.

The unfolding of the theme in bars 1 - 8 is characterized by sequences, a technique very much associated with tonal music. Initially, these occur in bars 2(4) - 6(2). The sequencing is confined to the theme, with the material being transferred from D to G, a clear indication of traditional structuring. However, the sequencing is not matched with the tonalities in these bars and it is only when the idea returns for the final time in the section, bar 24, that the match is achieved, on D as dominant preparation.

The continuation of the theme in bars 8(3) - 10(2) introduces Ab and Db to the tritonal outline mentioned above. These extra pitches create a new symmetry with a major third outline, Db to A. This interlocks with A/Eb and the pairing of these intervals is the basis of many chord structures in the work. In addition, Db to A is used in the bass in bars 8(3) - 13(1) and thus bonds the outer parts together.

The bass line in bars 1-6(1) comprises an interrupted descending G minor scale. The first linear span, in bars 1-3 has a G to Bb outline, which reflects the tonal architecture of the movement. The replacement of the leading note F# by F results in a scalic symmetry.

Bb C D Eb F G

221 22

In addition, these pitches almost form added fifths Eb to A (only A is absent and this occurs in the continuation from bar 4). The descending line is continued from bar 4 - 6(1). It begins, significantly, on Eb. Ab and B can be explained as auxiliary notes as neither fall within the A/Eb symmetry. B cancels the Bb in the previous descent but is possibly presented to introduce the semitonal conflict which is a feature of the work. It may, indeed, be a development of the D/Db interaction. Like the first three bars, the continuation is based on symmetry, although different to the original -

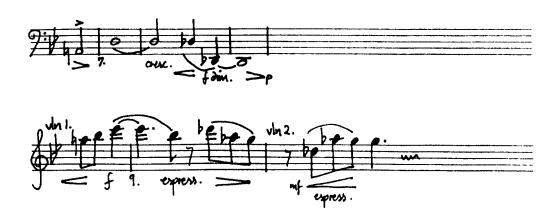
Ab A B C D Eb

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Significantly, the symmetry is broken at the beginning of bar 6 by G.

Bars 6 - 7 comprise rising conventional sequences on C and D. Although the bass line is totally unambiguous, the upper parts at this point do not reinforce it as the texture is chromatic and contrapuntal. However, thematic sequencing in bars 7 and 8 on those two notes are an obvious way of bonding the outer parts. These thematic sequences appear to be based on the earlier ones in bars 2(4) - 6(2). There is yet another way in which the outer lines are linked. The bass outline in bars 6(3) - 9 is the same as that of the thematic material in bars 8(3) - 13.

Figure 16.

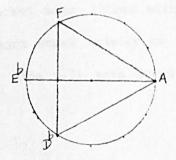


The outline of the bass here is A to Db, the major third of the thematic outline of bars 1 - 10(2). The violin versions of the idea have tritonal outlines, chiefly G/Db and A/Eb. Both are used twice, once in retrograde. The remaining axes used are F/B and D/G#. Although the thematic cells have symmetrical outlines, their arrangement is assymetrical.

Figure 17.

The A/Db outline of the original bass part is reflected by the use of these pitches as entry notes in the violins. The order of entry pitches is A,A,Db,Db,F,Eb,D. The first six notes form a structure of interlocking major thirds with axis.

Figure 18.



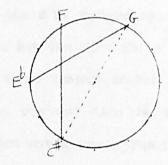
Only D falls outside this arrangement and this entry may be said to be a little less important as it is almost hidden in the middle of the texture. The use of D as an entry pitch may be an implication of Db resolving onto D.

Conventional triads lie at the basis of this passage, with much use being made of sevenths and ninths. There are occasional augmented triads and chords of added fifths, both of which are symmetrical structures, but there is no discernible pattern to chord use. The work begins with a straightforward double/triple stopped G minor chord in root position but the music then slides into each new chord in a complex manner so as to remove almost all sense of harmonic rhythm. This shows the essence of the style, its ambiguity. At times, Bridge chooses ambiguity, as for example at the first climax on Db, bar 8(4). The chord above the Db bass could be explained in one of two ways, either as Db(11) or as Cb(11). The approach chord is Gb which sheds no further light as it forms a conventional progression with both chords. The pitches of the ambiguous They form a similar structure to climax chord are Eb,G,Cb,Db and Fb. that of Figure 9, interlocked major thirds with axis (if Fb is omitted). The resolution of the chord comes briefly on the second beat of bar 9 and is G(11) diminished. The G/Db axis forms a unifying factor in the progression.

The thematic germ in bars 6(3) to 13 is the basis of sequential material in bars 14 to 15. Tonally, the later passage reverses the arrangement of bars 6 - 8(2). The semitone is placed at the beginning of the motive in both bars, as in violin 1, bar 8. This sequence is of note in two ways. For the first time, all parts are sequential and secondly, the tonalities arise from the progression. These two factors may indicate a greater importance of this material; it recurs during the coda,

where its full significance emerges. From the opening note to the accented apex, there is a tritonal outline, Eb/A in 14 and C#/G in 15. This is, therefore, further evidence of the underlying importance of these two axes. However, both axes resolve onto a major third, Eb/A leads to G and C#/G to F. This produces a different symmetry with G/C# again the link.

Figure 19.



Against the motive, the countersubject in violin 2 in bar 14 and violin 1 in bar 15 is based on paired axes. The tonic C#/G and E/Bb are the root of bar 14 and the dominant B/F and D/Ab in 15. In addition, C#/G is retained throughout as a means of unifying.

The viola line in these bars echoes the start of the thematic motive and thus highlights the fifth/tritone element (Eb,E,Bb and Db,D,Ab). This seems to be a further development of the D,Db,G relationship suggested by the tonality. (See Figure 2)

The bass in these two bars takes the Db,D relationship (written as C#,D) and then moves this on to C.B. This is the start of a descending chromatic line in bars 14 to 16(4) which has a conventional D to G, V -I outline. This is followed by the 'cello repeating its earlier line (1 -4) at 16(4) - 18(2). The repeat is ended by the introduction of C# in This replaces C as a means of using D/Db/C# at a climax. C# is actually a non - essential note as the bass line continues to descend, onto C at 19 and then to Bb instead of the B, at bar 4. This is possibly further working out of the B/Bb interaction. The line is not continued down onto G as at first, but now uses Bb to get conventionally to Eb for the main climax of the first subject at bar 19 - 20. The climax in bar 18 is not an important one and this is borne out by the fact that tonality and chord are not synonymous. The root of the chord in the last half of bar 18 is F and this forms a major third relationship with the tonality, C#. This relationship is continued by the way that the chord is constructed as it comprises interlocking major thirds with axis. F.A.C# with G. The axis forms a link with the earlier use of Db as a tonality (bar 8), where the two pitches were also part of the accompanying chord, also with a structure of interlocking major thirds, then Cb, Eb, G with Db. latter structure in 18 is a tritonal repeat of the former. The Furthermore the G/C# axis bonds the climaxes on C# and Eb in bars 18 and 19. despite tonality and harmony being one and the same in the latter bar.

The sequential material that featured at the start of the first subject is brought back in bar 19 and is the basis of the concluding bars of the section. It is altered now so that the anacrusis is removed and the rhythm is augmented. Without the first note, the sequence begins on D and thus anticipates the later use of the pitch tonally. This indicates that C# and Eb of bars 18 - 19 are to some degree resolved in contrary motion [involving counterpole replacement]. This resolution, which at this moment is achieved thematically, eventually resolves tonally in bar 24. The sequential idea is used three times at this point, bars 19 - 27(3), beginning on D,C and D (19,20 and 24). Only the versions on D form a symmetrical arrangement, possibly as this is the most important pitch, being the emerging tonality. However, as is frequently the case, the order of the sounding pitches does not form the symmetry; a rearrangement is necessary.

D Eb F G A Bb C D rearranged as
C D Eb F G A Bb C
2 1 2 2 2 1 2

Theme and tonality eventually come together again in bars 24(2) - 27(3), now on D, but the harmony denies full resolution until bar 27(3).

Figure 20 overleaf.

Figure 20.



The tonality is established by the 'cello pedal which is approached from two uses of its counterpole. Ab, in the bass at 21 and 23. important stage in the music, the end of the first subject, Bridge has introduced a tritonal relationship. Furthermore, at the end of 23 the bass pitch is reinforced by having the Ab chord. At the beginning of the pedal D, the chords are alternately C# and A. This can be explained as a reduction of a V - I. A to D progression with C# as an extension of A or as a compressed IV - V - I, with C# as counterpole replacement of G. It is notable that the first chord with the pedal D is C# and so once more the D/Db relationship is brought into play. The G/C# axis unites chords which are a major third apart. A chord of D is the two introduced in bar 26. This D(11) can be described as a chord of added fifths with tritone, F,C,G,D,A with Eb and this may prove to be evidence of Bridge's fondness for chosing chords for their dual properties. After a return to A(11), the chord of fifths with axis is used again but without F. This leads to a more ambiguous conventional explanation as it could be D(11) or A(11). However, there is no uncertainty surrounding the D major (9) which concludes the first subject. Throughout bars 26 - 27(3) A and Eb are constant pitches and this links back to the start of the section where this axis was the basis of thematic writing. In this way Bridge uses this tritone to unify the first subject.

The transition begins at bar 27(4). Figure 21(a) shows all the tonalities used.

Figure 21. Exposition. Transition.



The prolonged D tonality at the end of the first subject finally resolves at the start of the transition via Bb onto G and thus major and minor thirds are formed. In addition, Bb anticipates the direction of the transition towards that pitch for the start of the second subject. Overall, the section has a major third outline, Bb to F#. The first part of the section has a progression which is reversed at the end, thus implying a kind of cyclic structure. G - Ab at 28 - 29(3) is reversed at 39 - 40. These pitches form a kind of I - V progression with Ab as the counterpole replacement of D. Indeed, the first Ab leads to its counterpole at 29(4). This is followed by a major third shift to Bb which is the start of a passage of conventional fifth relationships which forms the central part of the transition. Another way of interpreting bars 29(3) - 38(2) is as a series of rising whole tones, Ab, Bb, C, F as a subsidiary pitch. This can be said to combine with increasingly augmented intervals - Ab/D=augmented fourth, Bb/F=perfect fifth and C/Ab=minor sixth. This makes a cyclic passage on Ab as the next pitch in the order, D, is replaced by its counterpole. The final part of the section, bars 39 - 42, comprises falling semitones. at the end suggests a resolution on B at the start of the second subject but in fact this is not to be as the new section begins on Bb and so a major third progression replaces the conventional fifth. By doing this, Bridge continues the semitonal conflict between B and Bb.

The opening grace note figure of the transition in 27(4) has a G to Bb outline which refers to the main tonalities of first and second

subjects. It is further reflected in the first tonal progression of the transition. A tonal grace note figure (V -I) follows in bar 28(1). In this way, Bridge places radical and conventional in close proximity. The second grace note figure re-establishes G as the tonal centre and it is reinforced harmonically with G minor chords at the start of 28. This is the most forceful prescence that G has had since the start of the work. It is marked forte and with accents and all parts share the same rhythm for the first time. However, stability is not absolute as the chromatic bass line disturbs the effect.

Figure 22.



The G minor chords lead eventually to a chord on the C# counterpole at the start of 29. In between there are augmented sixth chords and chords of added fifths, both of which are symmetrical structures. All these chords slide chromatically into one another. The thematic line in 28 - 29(1) has a strong bias to the D/C#/G idea. It is followed by G/Ab/Db in violin 1 and viola at the end of 29. This fragment refers back to the material from bars 8 - 9.

Figure 23.



The idea leads to D at 29(4) so once again reference is made to that semitonal interchange. The instrumental doubling suggests an importance and in fact all pitches at the end of 29 are G.Ab,Db,D,G which forms the axes on G and D.

More sequential material follows in bar 30, but this is not based on anything used previously. Over eight bars the bass line moves up by the interval of the fifth, Bb,F,C. Thematically, the sequences last for only six bars, 30 - 35. In the first bar, the theme puts E and Eb with G thus forming major and minor third below the tonic. E eventually drops out and the new figure in 31 incorporates Eb,D,G which is possibly a

reworking of the original sequential material in bar 3 which used D,Eb,G. The sequential repeat of 30 - 31 in 33 - 35 is all up a fifth but there is some rearranging of the instrumental parts. As the flattened version of the note once again supersedes one is left wondering whether this is a subtle foreshadowing of Bb replacing B for the second subject. Bars 36 and 37 are only tonally sequential.

The tonal shift from Ab to G at 39 to 40 is a version of V - I with Ab being a counterpole replacement of D. It is accompanied by tonic tritonal outlines in the 'cello and first violin at the start of 40. The 'cello line at this point incorporates the E/Eb from ten bars earlier as well as a D/C# shift while violin 1 incorporates the B/Bb from bar 33.

The tonality shifts down another semitone onto F# at 41 and this is the final tonality of the section, although there is a short passage of chromatic writing in 42 which divides the tonality in two. If this pitch replaces F as V of Bb, then there is an implied F/F# conflict. The tonal progression to F# is accompanied by thematic writing based on a broken chord in the violins. The G# B D# F# chord has a 3 4 3 intervallic symmetry but also there is an implied symmetry on B in all parts in 41 - 42(2). All pitches in ascending order are -

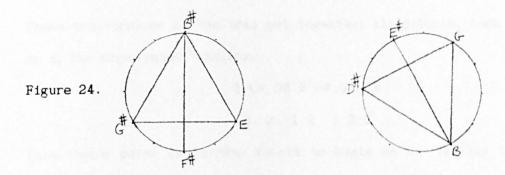
B C# D D# E E# F# G G# A#

2 1 1 1 1 1 1 1 2

This symmetry on B supports the B major chord which accompanies the start of the writing on F#. The pairing of F# tonality with B harmony reinforces the implied tonal progression to B. It also demonstrates Bridge's fondness for blurring the tonal effect by strongly emphasising a second pitch, for at this point, the separate part writing of bars 30 - 40 is ended as all parts come together at a loud dynamic level. Although the F# pedal is broken off in 42, its resumption in 43 - 48 establishes it as the longest pedal in the work to date.

The six bar F# pedal in 43 - 48 is prefaced by pesante accented chords at the end of 42. Bridge used this technique to point to the start of the transition and this is only the second time that such writing has been used in the work so far. Three chords in triplet rhythm are constructed on intervals that symmetrically divide the octave, fifths, tritones and major thirds. The first of the three chords combines added fifths and tritone, C#,G#,D# with A. This is similar to the chord that accompanies the starting of the F# pedal which comprises added fifths with a major third outline, E.B,F#,C#,G#. The intervening two chords that conclude bar 42 consist of augmented chords with added tritone.

Figure 24 overleaf.



a) leads to b)

This progression involves a shift of a fifth for the interlocked thirds and a shift of a fourth for the tritone. The fact that Bridge has chosen the sharp version of the notes, eg. B# instead of C, reinforces the suggestion that the music is moving towards a sharp tonality, ie. B. However, E# and B# equally imply Bb as the emerging tonality, as C and F in enharmonic form.

Bars 43 - 48 introduce an accompaniment figure that will continue that role in the second subject. This way of overlapping sections is a typical procedure for Bridge and is one way of achieving continuity. The new figure is introduced on E but it is then transposed onto A.

Figure 25.



These two versions of the idea put together, all pitches, form a symmetry on B, the anticipated tonality.

B C# D# E F# G A B

2 2 1 2 1 2 2

This figure moves on another fourth to begin on D. Pairing this version with its predecessor on A forms a kind of symmetry but there is no suggestion of B. On the contrary, there is an implication of moving away from it.

E F# G A B C D

2 1 2 2 1 2

To continue the progression of fourths, the next entry would be on G but Bridge replaces this pitch with C#, its counterpole and it is this version, which is not quite the same as the previous ones, which concludes the section.

Not only is the accompaniment of the second subject stated before its rightful place, but the theme itself is attempted at the end of the transition. This occurs in bars 46(4) - 48 and is played by violin 1 starting on A, the counterpole of Eb which is the subdominant of Bb.

Figure 26.



This entry also helps to disturb the effect of moving towards B. This version of the theme plays with both major and minor third, C# and C, but it is on the former pitch that the theme eventually comes to rest. C# is, of course, an enharmonic version of Db which has already played a significant role in the work. C# finally falls to F# at the end of 48 which still leaves the final resolution open.

The major/minor conflict present in the emerging second subject is also part of the viola accompaniment in bars 43 - 44. Here B is put with G and G#. This relationship was anticipated by the tonal progression in 39 - 41 where the music shifted from Ab to G.

The chord progression above the F# pedal is quite slow. The first chord in 43 - 44 is C# and this leads to F# in 45. However the progression of fourths is not continued as B is replaced by its dominant counterpart, D. At the end of 46 there is a brief suggestion of a chord on B. The transition ends with alternating D# and D chords. As D# is the subdominant of Bb and D is the dominant of \$\mathbb{G}\$, the options are still wide open. However, neither chord would make an obvious link to B. The transition ends on the D# chord which forms a plagal relationship with the ensuing Bb tonality. The use of the subdominant rather than the dominant at this cadence may be explained by the fact that Eb(D#) has an important function as one half of the implied tonal symmetry of the work.

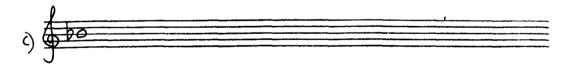
There may be a further link with the important climax on that pitch in the first subject.

The second subject is tonally more stable than anything so far. Figure 27a) shows all the tonalities and the overall Bb - Eb progression which was anticipated by the plagal cadence into the second subject mentioned above.

Figure 27.Exposition. Second Subject.







Bb is an obvious choice for the second subject of a work in G minor, being the relative and Eb, as the other main tonality of the section, ties into the implied tonal symmetry of the work, both as part of the A/Eb axis and as forming interlocked major thirds with G and B, the two main tonalities of the work. Other conventional relationships occur in the

second subject. C-F and Bb-F. At the centre of the section there is descending chromaticism, bars 63 - 65. This moves from dominant to subdominant, F to Eb, via the tonic Bb counterpole, E. The only other tonal pitches in the second subject are C and Gb which are placed at important points, following the first and preceding the final tonalities. Figures 27b) and c) show the Bb to Eb progression more clearly.

The new sense of tonal stability is matched by the fact that theme, harmony and tonality are based on one and the same pitch. Bb. and, more importantly, this is sustained for longer than before.

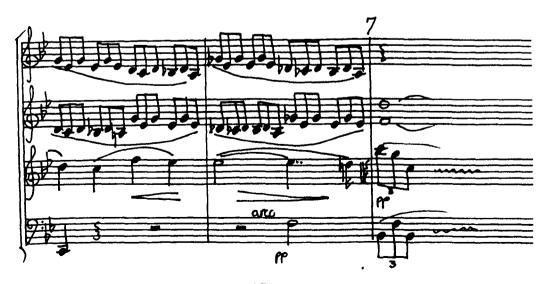
Figure 28.



Figure 28 contd.

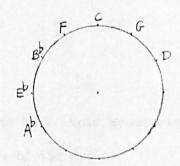






The new stability is matched by a new texture, theme in the viola, plucked chords in the 'cello and a flowing accompaniment in the upper parts. The mood is more relaxed now too. This is the first time in the work that the viola has been used thematically but it was much used by Bridge in this way. The theme begins in bar 49 on Bb and starts with rising whole tones until bar 52, B,C,D. This interval is another one that divides the octave symmetrically. Other pitches are then added and the whole thematic line, which lasts until bar 60(1), forms added fifths from D to Ab. This tritone is used at the apex of the theme (bar 57) for reinforcement. As the first subject theme implied an A/Eb symmetry, this represents an axis progression of a fourth. The added fifths, D to Ab, have a centre of symmetry on F. A. which finally quells the earlier intimations of B as the second subject tonality.

Figure 29.



F G Ab Bb C D Eb F
2 1 2 2 2 1 2

Another explanation for the use of this particular axis in the second subject is the D/Db relationship with G. D represents V in G and Ab is V in Db.

The accompaniment figure in the violins throughout bars 49 to 59 is in parallel fourths. Sometimes a symmetry is formed in the pitches used and sometimes not and no discernible pattern can be seen. However, there is a symmetry in the pitch arrangement of the symmetrical bars, 49 - 53 and 55 - 56.

Figure 30.

F G A Bb C D	A Bb C D E F	Bb C D Eb F G
2 2 1 2 2	1 2221	2 2 1 2 2
49-52	53	55-56

The fact that six of the bars avoid symmetrical arrangement reflects the more conventional nature of the music.

The repeat of the second subject theme split between the violins in bars 60 - 70 has far greater weight because of the division and the higher register and because of the added crescendo onto D/Ab at the climax. Otherwise there is nothing significantly different until the end

where the final phrase is stated twice onto Eb, the final tonality of the second subject, and once again highlighting the underlying symmetry of the piece. As a result of this, the final pitch of the theme, D, is omitted. Eventually, it features, although not thematically, at the start of the development as an upper tritone in bar 75.

The final tonality of Eb occurs in bars 73 - 74 and now the accompaniment in the viola and 'cello employ pitches centred around Eb.

Gb Db Ab Eb Bb F C

B is additional to this and can be explained as the counterpole of one of the pitches.

The second subject leads directly into the development, which begins in bar 75. A codetta is commonly used to conclude the exposition but Bridge has chosen not to include one. Its absence may be explained by the fact that, in music of such an organic nature, it is not possible, at this early stage in the work, to present any summing up of the material. Also, a codetta might well have the effect of halting the musical flow.

Figure 31 shows that the development has an overall V - I progression, D to G.

Figure 31 overleaf.

Figure 31. Development.



Although this shows a conventional tonal structuring, these two pitches are relatively unimportant in the context of the section as they are touched on only briefly. As might be expected, there is a very fluid manipulation of tonalities. Figure 31c) shows the main tonalities. The section now begins on C#, the counterpole of G, and the six preceding pitches are seen as leading to this. There is a conventional shift to F# which refers back to the use of that pitch at the end of the transition. The progression on to A# continues the reference back as this is the enharmonic form of Bb which started the second subject. It is interesting that Bridge chose to interpret the note in this way and then to follow it with B, thus creating a leading note - tonic progression. It serves to recall the B/Bb conflict that emerged in the exposition. B is followed by its counterpole which forms a relationship with E, the final pitch of the development. As this is a tonic pitch, this forms a tonal overlap between development and recapitulation.

The development concentrates on first subject material but transition and second subject ideas are introduced at 112 and 117 respectively. However, the second subject is anticipated from the start of the more lyrical writing, bar 97, and the intention seems to be to fuse the first and second themes.

The G tonality at the start of the development is implied by the material in violin 1 which descends chromatically around G.

Figure 32.



In addition, there is an entry of the first subject in the viola on G starting in bar 75. This version of the theme is still based around the A/Eb axis but with C omitted. The reason for the absent note may be that there is an attempted entry of the first subject on that pitch in the 'cello at the same time. This is a prelude to the 'cello entry on Bb which begins at bar 77(2). This latter version of the theme is non-symmetrical, the starting note would need to be B to form a symmetry on C# and so once again there is an implied B/Bb conflict.

Successive first subject entries at 82 and 84 begin on C and G and both have axis symmetry, on D/Ab and A/Eb. The second of these two axes is the basis of chromatic writing from 81(2) - 83 in the viola and 'cello. The A/Eb writing is accompanied by a crescendo and it is brought to a climax at 86(1) with a chord of A C Eb G, thus emphasising the tritone. The chord is immediately followed by a version of the first subject on F which is also based on the A/Eb symmetry of fifths until the introduction of C# in 88. This working of the theme is similar to the original version where Db was eventually introduced.

A point of emphasis occurs in bars 90 - 93 with repeated E and C# chords.

Figure 33.



This is a reflection of the overall tonal progression of the development as shown in Figure 31. E and C# are both tonic axis pitches and throughout the gradual crescendo in these bars, they are always used as E minor and C# major. Putting these triads together forms an overall symmetry -

E G B C# E# G#

3 4 2 4 3

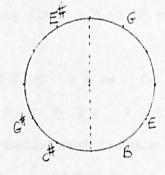
By putting the pitches in ascending order, another symmetry is produced -

C# E E# G G# B

3 1 2 1 3

and it is this arrangement of pitches that is used thematically in bar 93. The underlying tonality of these bars is F# and by placing the pitches of the two chords on the circle of fifths a symmetrical arrangement around the C/F# axis is produced.

Figure 34.



This forms an axial shift from the writing on the A/Eb writing in bars 81 - 87. A passage of free chromaticism follows in bars 94 - 96.

The next point of emphasis occurs in bars 112 - 113.

Figure 35.



These bars are clearly based on the upper A# pedal, an enharmonic version of the Bb used as the main tonality of the second subject. The grace note figure originates from the beginning of the transition, where it outlined G to Bb. Now there are two different minor third tonic outlines. E to G and C# to E. These flank a D to F# major third and thus form an overall symmetry.

E F# G D E F# C# D E 2 1 7 2 2 7 1 2

Putting these pitches in scalic order produces a C# to G outline -

C# D E F# G

1221

and this complements the tonic A# pedals. Furthermore, on the circle of fifths, these pitches fall symmetrically around E, the counterpole of A#.

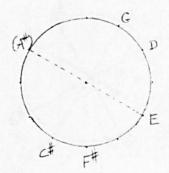


Figure 36.

The grace note pattern is repeated once and then the third statement is altered to accommodate a restatement of the transition material on B. Originally, the transition was approached via the G A Bb grace note figure; now the transition is approached via a G A B grace note figure at bar 114(1) and thus the B/Bb duality is kept alive. The repeat of transition material includes an extra bar (115) which emphasises the tritonal content of the material and therefore supports the earlier premise of its makeup. However, the use of the tritone is different as it is now the basis of thematic working rather than harmonic. Tritones occur as a result of instrumental pairing in 115 - 116(1), violins 1 and 2 and viola and 'cello on the beat and violin 2 and viola off the beat. This produces whole tone progressions of axes which are cyclic - B/E# & $D/G^{\dagger} \rightarrow A/D\# & C/F\# \rightarrow G/C\# & Bb/E (on the beat) - E/A\# \rightarrow D/G\# \rightarrow C/F\# (off)$ the beat). G/C# is repeated on the last beat of 115, without its tonic partner and leads to B/E# with D/G# at the start of 116 followed by E/A# off the beat and this is where the pattern ends.

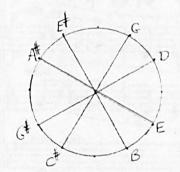


Figure 37.

Double fifth progressions result from this patterning and thus the fifth and tritone are put together once more.

The F# to F in the bass across the bar 116 - 117 accompanies a reference to the second subject. This dualism was originally used at the same place in the exposition, transition to second subject. The 'cello theme which begins at 117 and lasts until 127 is based on the second subject and involves A/Ab duality. The latter eventually replaces the former at 122 and forms a D/Ab thematic outline of all the pitches. This axis is the dominant of G and it marks the end of the development.

The viola pedals in the same bars gradually progress round the circle of fifths from EA to DG# via fourths and tritones, e.g. EA \rightarrow EbA \rightarrow EbAb etc. Bar 121 is extra to this progression and it is marked by a change of texture as the upper parts become chordal over a pedal bass.

Figure 38.



This kind of writing usually denotes something of significance. There seems to be only one clear way of explaining this as the chords are not traditional. All combine interlocked tritone with major third except the last which comprises interlocked major thirds. The progression of major thirds from these chords forms the Bb D Gb triangle of thirds and this is followed by Eb G B as the last chord of the progression at the end of 121. Thus, a plagal relationship is created.

Tritones occur in a regular order between the parts in this bar. They alternate between violins 1 and 2 and viola and violin 1 to create an open symmetry in the progression from B/F to E/Bb. This is an extension of the fourth relationship mentioned in respect of the major thirds as B/F moves to E/Bb and then to B Eb G on the last quaver. Also, the tritone progression reintroduces the B/Bb conflict.

The material from bar 121 returns in an extended form in bars 126 - 128(3). The tritonal working now begins on C/F# instead of B/F, thus implying that a third statement would begin on G/C# and form the recapitulation. This is avoided. Instead, the axis progression is now cyclic in 126 - 128(3). The major thirds now complete the two structures not used in the previous passage, F C#/Db A and C E Ab/G#.

The bass line in 127 - 128 moves from the tonic E to its counterpole Bb. This implies a tonal recapitulation and the Bb begins a 'cello line that is almost a playing of the first subject in bars 128 to 130. However, it is in bar 131 that the authentic version of the thematic idea is started by the 'cello and this marks the start of the recapitulation.

The interlocking tritones and major thirds which form the chords in 126 - 128(3) are followed by a Bb major triad, which begins on the first beat of 128 to form an overlap. This reinforces the Bb thematic emphasis. The conventional chord lasts until the first beat of 130 and is followed by two more tritone/major third structures. The axis content is now exclusively dominant, F/B and D/Ab. Chords on Ab and F follow, both of which are aspects of the dominant to G. However, there is no use of the conventional D - G progression in these closing bars of the development. As the perfect cadence is avoided, the recapitulation is achieved solely by the use of the first subject theme in the 'cello which

begins in bar 131. As there is no coming together of the parts to point to the start of the new section and no ritardando, the return of the theme is almost hidden. In fact, Bridge achieves a complete overlapping of the development and recapitulation. Eventually, the latter is reinfored as the repeated Ab in the viola in bars 130(3) - 131 resolves onto a G pedal which lasts for seven and a half bars and the upper parts are removed in 132 to give clarity to the theme.

The tonal makeup of the first subject in the recapitulation is much simpler than the original. [Compare Figures 11 and 39.]

Figure 39. Recapitulation. First Subject.



The return of the tonic is approached from tonic axis pitches at the end of the development, notably E. This means that the conventional fifth relationship used at such a point is replaced by the minor third. Note that the compression of the tonal architecture of the development (see Figure 31c)) shows a rearranged V - I as A # - B - F - E. In the recapitulation, Bridge avoids the opening emphasised G minor chord. This was rather an empty gesture as immediately the music moved away from this pitch. Now, G is retained as a tonality for much longer although

its effect is weak as the pedal which provides the tonality is in an inner part and is frequently not the lowest sounding pitch. As in the exposition, D, as the dominant, is the tonal goal of the section. B is touched on briefly in bars 141 - 142(3), but this is to be the main tonality of the second movement and its place here is subsidiary.

The theme of bars 1 - 7 is repeated exactly in bars 131 - 137, now transposed from violin 1 to 'cello. Instead of going on to bar 8, bar 7 is repeated at bar 138. This means that the thematic pitches Db and Ab are omitted and therefore the theme now lies exclusively within the A/Eb axis. All the pitches of the theme now have a scalic symmetry on C and thus complete symmetry is achieved. [It was not originally so complete.]

C D Eb F G A Bb C

2 1 2 2 2 1 2

The theme now leads to a rising 'cello scale on C at bars 139 - 140.

This has the same symmetrical arrangement as that of the theme in scalic order but this time the basis of symmetry is F.

F G Ab Bb C D Eb F

2 1 2 2 2 1 2

This symmetry on the dominant is reinforced by a chord of Ab major seven in the inner parts in these bars. This chord has a symmetry too -

Ab C Eb G

4 3 4

This chord is the start of a passage of harmonic symmetry contained within the inner parts.

Bars 139 - 140:-

Ab C Eb G

4 3 4

Bars 141 - 142:-

 $C E G B \rightarrow G B D b F$

4 3 4 4 2 4

Bars 143 - 144:-

Eb G Bb D - E Ab Bb D

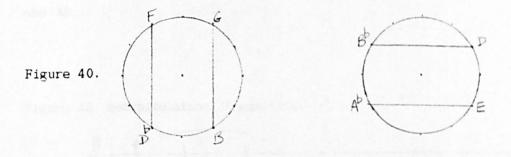
4 3 4 4 2 4

Bar 145:-

 $Bb D F A \rightarrow D F# G# Bb$

434 422

Bar 145 breaks the pattern in two ways. Firstly, the expectation is that G or F# might be the first chord of the bar. G would form a symmetry with Ab C and Eb, as the roots of the opening chords of each bar. F# would continue the minor third progression from C and Eb. Bb replaces both possibilities, being a minor and a major third from G and F#. The second chord of the bar is the expected augmented sixth but altered as it is not possible to continue the progression of pairs of major thirds, but merely to return to the original pair —

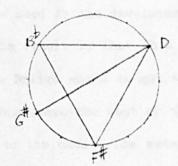


Bar 142(4)

Bar 144(4)

Bridge's solution is to replace the major thirds with a different kind of symmetry:-

Figure 41.



This structure stems from the that in 144(4) with E replaced by F#.

The repeated transition clearly shows the fifth/tritone conflict which is implicit in the movement, now based on the dominant D with A and Ab.

Figure 42. Recapitulation. Transition.



Like its immediate predecessor, this is less complex than the original and it now has a conventional tonal outline. It could be argued that there is no need for a transition at this point as the first subject in the recapitulation ended on D. In fact, the opening of the transition is omitted, partly as it was used in the development and partly as it is to be used in the coda. The result is that this version of the transition is shorter, presumably as Bridge wants to get as quickly as possible into the second subject and thus leave the rest of the rigorous discussion and the sense of resolution to the coda. The material from bars 41 - 44(2) is now repeated up a minor third in bars 146 - 151. The last two and a half bars develop material from the preceding bars. The bass progression is A - Ab - D, the latter as V of G. Had the A been retained and treated as before, the bass would have led to C#/Db, the counterpole of the required pitch for the start of the second subject. The accompaniment figure of the second subject is now worked on G and Ab, taken from the D and C# at the end of the original section, [bars 45(2) - 48]. Putting all

the pitches of this accompaniment figure together an incomplete chromatic scale with a D to Ab outline is formed. This complements the bass progression mentioned earlier.

A new accompaniment figure is introduced in bars 150 - 151 in the inner parts. The pitches in scalic arrangement have a symmetry.

C C# D# E F# G A A#

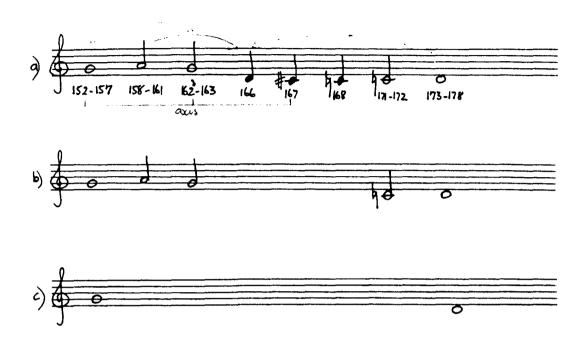
1 2 1 2 1 2 1

This is the only time that I have observed this kind of octatoric arrangement of pitches in the work so far. Ab in the viola lies outside this arrangement but this may be explained as being part of the bass progression on D. D and Ab as a pair do not break the symmetry but merely alter it.

The transition leads to the second subject via a traditional V-I progression. This was tantalizingly avoided in the original version as F# led to Bb.

The second subject which follows is begun, conventionally in G, but now in the major. This is the first time that G major has been used but it is inevitable if a conventional recapitulation of the section is to be achieved, as the idea is major.

Figure 43. Recapitulation. Second Subject.



A comparison with Figure 27 shows that the repeat is largely the original down a minor third. The last six bars are different as the final two tonalities, which would be Eb and C, are omitted as D is retained as a firm tonal base to lead to G at the start of the coda.

The closing bars of the viola, 173 - 178, are reminiscent of the original in bars 117 - 125. This originally led back to the first subject material at the start of the development, now it is leading to the coda. Originally, the combination of fifths and tritones had this arrangement -

Now the arrangement is -

This means that the progression moves to the alternate dominant axis.

The progression is continued into the start of the coda as there is an axial shift to D/Ab in the viola in bar 179.

The coda is not a comfortable resolution of all that has gone before. The listener is left in no doubt that Bridge has more to say. The music is still tonally shifting and the thematic writing is developmental in style.

Figure 44. Coda.



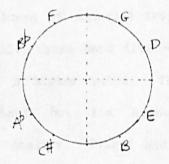
The section uses material from the first subject that was not used in the earlier part of the recapitulation and transition material. Having had six bars of dominant preparation at the end of the second subject, G as a tonality is avoided at the start. It is briefly replaced by another tonic pitch, Fb. Apart from a passing reference in bar 187, the main tonic is avoided for 18 bars. Furthermore, D as the dominant tonality is omitted from the coda altogether. This area is represented by Db and Ab and F. There is an important passage on A in bars 192 - 195, this the counterpole of Eb. This eventually resolves onto G at 201 - 206 and forms another plagal relationship.

The version of the first subject that opens the coda begins on this subdominant A. This is essentially an extra pitch, as the ensuing pitches recreate the theme on G. The added A possibly reinforces the prominant Eb in 181, the Eb/A basis of the the theme and the tonal progression mentioned above, A to G, at the end of the section. The underlying tonality at the start of the coda is Fb and A forms a subdominant relationship with this pitch. However, despite the implied normality of this writing, it is underpinned by much chromaticism. This is evident immediately, in the ambiguous opening chord. This could be explained as D(11), Fb major(11) or as E minor(11). It could be that this unusual structure comprises a compressed perfect cadence, with D as the dominant and Fb and E as tonics. The roots of these implied chords.

be that the implied Fb/E is a foreshadowing of the E tonality in the movement.

The material from the opening of the transition is recalled in bars 182 - 184. Originally, this was firmly based on G minor harmony but this is removed and replaced by another tonic, E(7). Furthermore, the tonic prescence in the theme is weakened as the G/C#/Db outline is now developed as other axes are introduced sequentially in 183 and 184. The total tritonal content now forms a symmetry around A/Eb and C/F#.

Figure 45.



This sequential writing leads to a short passage on Db in bar 185 which reintroduces material from bar 9 of the first subject. The next two bars are built on the grace note figure which opened the original transition. The pattern of thirds again form a symmetry but with a different order to before.

D Eb F Bb C Db G Ab Bb Eb F G
2 2 5 2 1 6 1 2 5 2 2

Significantly, the tonic Db/G axis lies at the centre of this arrangement. In ascending scalic order, these pitches have a symmetry on another tonic pitch, Bb.

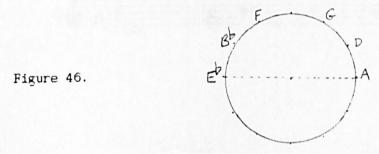
From bar 185 there is a gradual process of building of tension and the climax comes in bar 190. At this point, each part has a figure in succession, C# D Bb G D. This may stem from the sequential writing in bars 14 - 15 where the material had a C# D G outline. At any rate, bar 190 is clearly further comment on the D/Db G relationship.

This climax is followed by material from bars 12, 13 and 14, now with a new rhythm. Tonally, these bars (192 - 195) are based on A with D as an added pedal at a higher pitch. The latter is the expected tonality, as the dominant but its higher register weakens the effectiveness of D as a tonality. Plagal and subdominant relationships have been mentioned many times in the work so far and frequently, as now, they are used as a means of leading back. Very often the fourth is put with the tritone and this is what happens here as AD becomes Ab/D at the approach to G and the first subject at 197. The tritone forms a straightforward dominant whereas the fourth combines dominant and subdominant. Violin 2 has the opening of the first subject in bars 197 - 199 and its pitches comprise the fifths Eb to A. The full theme is played by violin 1 in 199 - 205 with the same tritonal makeup.

Bridge brings the two main musical ideas of the movement together in bars 201(3) - 204 as he reintroduces the accompaniment figure of the second subject against the first subject theme. The pitches of the accompaniment figure form rearranged added fifths with an Eb to A outline too at this point. As the movement draws to a close, the dominant chord is totally avoided. The area is represented by a single pitch, D, which is present in an inner part from 201(3) - the end. It is this pitch which is put at the top of the texture in the closing four bars and immediately prior to the final three G minor triads there is an octave D in the three upper parts. This is the way in which the cadence is achieved. It could be said that the single pitch is less ambiguous than the triad, which, as D major, contains two subdominant pitches.

Chordally, the closing passage, bars 197 - 206, has some interesting moments. Although there is a thematic return of G in 197, this is not supported by the harmony for 4 bars as subdominant and dominant chords are placed underneath. From 201 - 204 G minor (as seventh and ninth) and Eb major (as seventh and ninth) are alternated, thus showing that the major third is preferable to the conventional fifth, as Eb replaces D. The pitches of these chords also form a symmetry based on Eb/A.

Figure 46 overleaf.

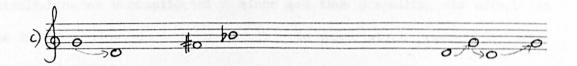


The fundamental tonal architecture of the first movement is shown in figure 47 below. Pitches in parentheses show the original octave; these have been altered in the present example to give a better layout. The example shows that most of the quartet's main tonalities have been presented.

Figure 47. Tonal Framework of First Movement.



Figure 47 contd.



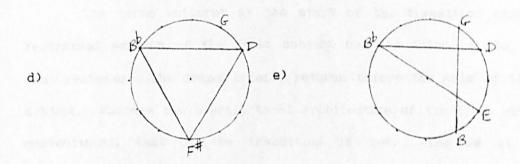


Figure 47d) shows the main tonalities of the movement in condensed form and 47e) shows the main tonalities of the work. There is an obvious similarity between these two. G D and Bb being common to both. So far E and B are the only two main tonalities of the work not given prominence in the first movement. Figure 47c) shows that I - V and V - I relationships are fundamental to the construction of the movement. Only F# and Bb lie outside this. Furthermore, this part of the example shows Bridge combining conventional and progressive relationships. Apart from the second subject, which is consistently in the more traditional style, all of the movement demonstrates Bridge's ability to combine disparate elements, conventional and radical. This is true of tonal relationships, textures, thematic ideas and harmony.

The first subject immediately presents this style of opposites by establishing an uncomplicated G minor and then dispelling its effect in the seamless flow which follows. This is music which presents an everchanging landscape.

The terse outburst at the start of the transition shatters the restrained passion of the first subject but the idiom of the latter is soon restored. The drama briefly returns before the calm of the second subject. Whereas the overall tonal architecture of the first subject was conventional, that of the transition is not. The F# at the end anticipates B and promotes the B/Bb conflict. Also, F# links with Bb and D as shown in the basic tonal framework in Figure 47. Finally, F# may be used at this point tonally to compensate for its absence thematically in the first subject.

The change of mood supplied by the second subject is pointed by the dolcissimo marking of the theme. This section is the only one in the movement that has a conventional tonal architecture combined with a traditional theme/accompaniment texture. Up to this point, the texture has been contrapuntal and changeful, with just brief chordal outbursts adding drama.

The development has a V - I tonal progression, but the route is not at all direct. Tonalities are continually being changed and the music becomes atonal for short passages. Internal tonal relationships are rarely traditional. The end is formally unclear as it overlaps with the recapitulation.

The effect of the return is weakened partly as a result of this and by the first subject being in the 'cello, somewhat disguised by the other part writing. This playing of the theme has a complete symmetry of added fifths with an Eb/A outline. The original playing in the exposition was subject to a continuation which introduced further pitches and removed the tritonal symmetry. The continuation is not used here. The original accompaniment is omitted and replaced by a double tonic G pedal in an inner part. This sustains the tonality but its effect is weaker as the theme is placed below it. Much of the recapitulation is tonally more conventional than the exposition, a proportion being based on G and D. The dominant of D is used at the start of the transition. This replaces the original F# which is also a subdominant pitch.

The coda dispels the equanimity of the second subject by returning to the more developmental style and unstable tonality. It begins on Fb, a long way from G in one sense but quite close in another as both are tonic pitches and in its enharmonic equivalent, E forms a relative relationship with G. D as V is avoided throughout and replaced by Db as

further working out of the D/Db conflict. Two other dominant pitches are used tonally, Ab and F. D has been much used in the recapitulation up to this point and this may explain its absence now. The tonal uncertainty is finally resolved when G is unambiguously maintained throughout the last six bars.

A feeling of resignation is achieved in the Poco Adagio at the end of the coda. The impression though is of repose not finality. Figure 47 bears this out as it shows that there are still important tonalities to be introduced to the work.

The second movement is a ternary structure whose first section is in a light, fast, fleeing style in the manner of a scherzo. Section B provides a contrast, not only by the change of mode, but by releasing the nervous energy which characterises the first section. At this point, Bridge slows the tempo from Allegro to Andante con moto and adds dolce in all parts. The main tonality of the outer sections is B minor which has a major third relationship to the G minor of the first movement. D major is the main tonality of the central section which means that the movement is centred on dominant pitches, in contrast to the first movement which centred on tonic pitches.

However, this is the most basic of tonal descriptions of the movement, for this music is just as imprecise in this way as was the first movement. The opening three bars make this point clearly as the anacrusis idea suggests a series of possible tonics. Each one in turn becomes the start of the next anacrusis fragment. In the next five bars, the music settles thematically on B. although the harmony undermines this. This is the first time in the work that tonality has been implied purely through the theme and with no subsidiary pitches provided by pedals or chords. These eight bars form a short introduction to the movement.

Figure 48 shows B to be the most important tonality in section A. by virtue of its frequency and duration. This tonality was barely used

in the first movement. [Just one short but emphasised passage in the recapitulation of the first subject.]

Figure 48. Section A1.



The opening eleven bars of the main part of section A establishes B as a tonality either thematically or by repeated bass notes. D. as another dominant tonality, and as the relative of B, is briefly touched on in bar 20 before B is re-established in a more positive manner. achieved by an increase in dynamic level and by using harmony which supports the theme. D as a tonality returns after a climax on B in bar This second use of D is established by means of a pedal. tonality is now at odds with the B minor theme in the 'cello, although its climax at bar 28 is on Ab, the counterpole of D. D is followed by C#/Db in bars 30 and 36 - 37, an obvious reference back to the D/Db conflict of the first movement. The flattening, achieved enharmonically, is retained as the music moves to Bb in bars 40 - 42. This forms a semitonal relationship with the main tonality of the movement and revives the B/Bb relationship worked into the first movement. Bb leads conventionally to F in bars 45 - 46.

The next main tonality ocurrs in bars 51 - 53 and this forms the climax of a passage of building up. The new tonality is F#, which conflicts with the F of bars 45 - 46. By placing these two pitches in close proximity, Bridge is reintroducing a semitonal conflict initiated in the first movement. Then, the F/F# relationship was not very important. F# is now treated as V and resolves onto B at 55. This and the following bar, marked fortissimo, prove to be the most positive writing on the main tonic so far in the movement. An emphasised plagal cadence in B minor at bars 65 - 66 reinforces the gradual working in of the

tonality. The use of pedals as a means of establishing tonality is increased from bar 66 to the end of the section. B as a pedal is eventually replaced by two other dominant tonalities, F and G#, to conclude section A. This means that the section is tonally cyclic although there is a pitch progression from B to G#.

Much of this section is at a low dynamic level. There are two main climaxes, at the end of the introduction, bar 8, and from bars 55 - 66, in a clearly defined B minor. Apart from these bars, the music rarely rises above mf and quickly subsides to p. Semitonal relationships from the first movement are re-used, D/Db, B/Bb and F/F#. In this way a unity is achieved in the work.

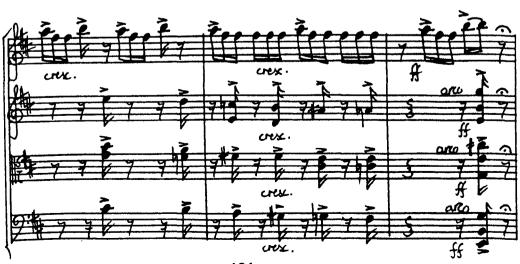
The introduction is barely a separate section as the material is the same as the rest of section A. However, there is a searching quality about the music and the texture is different to anything else in the first part of the movement.

Figure 49 overleaf.

Figure 49.

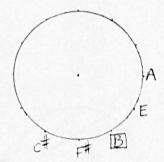






The movement begins with the motivic idea, based on a pentatonic scale, rising up through the parts, 'cello to violin 1. This is the first time in the work that this scale has been used. B is the centre of symmetry of the scale.

Figure 50.



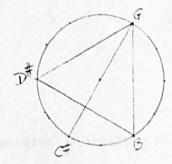
B C# E F# A B

2 3 2 3 2

The arrangement of pitches on the circle of fifths results in an A to C# outline. This was the major third outline resulting from the continuation of the first subject theme in the first movement. At that point, the major third replaced the A/Eb tritone and this means that the present A-C# outline implies this tritonal symmetry too. The motivic writing in the opening bars begins on C# and leads to entries on E, F# and A. The latter ends on B. The complete line is then repeated twice.

From bars 4 - 8, the texture is a conventional one, theme at the top and chords in the three lower parts. The theme settles tonally on B but the underlying harmony does not always support this. F# chords are frequently used but never as part of a perfect cadence. The F# chord in 4 resolves onto an augmented chord on G, which incorporates B. There is no way of describing this chord other than as an augmented chord with added root counterpole.

Figure 51.



This is followed by a C# chord at bar 6(2), so a tritonal progression is achieved too. B harmony ends that bar so the F# chord has eventually resolved. However, the placing of the movement's tonic chord on the last semiquaver of the bar weakens its effect and the perfect cadence is almost lost as the B is a seventh and as the two chords are so far apart and separated by different chords.

Bar 7 continues the crescendo begun in bar 6 and the tension is further increased by repeating the start of the motive onto B but

avoiding this pitch. Underneath, F# and G# chords alternate. The F# chord which was originally used in bar 4 is now altered and forms a symmetrical arrangement of pitches on the circle of fifths around the B/F axis.

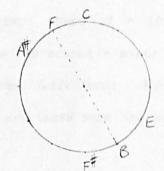


Figure 52.

This reinforces the emerging B tonality. The F# chord reverts to its original form on the next beat, 7(3). The continuing prescence of the F# chord leads one to expect a conventional resolution. Thematically this happens in bar 8 but the harmony changes from F#7 to C#7. This final chord of the introduction is rather ambiguous as it is essentially an E minor triad with C# placed singly in the middle of the texture. The makeup of the chord, three tonic Es, three tonic Gs and three dominant Bs, implies that C# may be a G counterpole. At any rate, the implication by the lower parts is of an E minor chord which means that the F# chords moved to B and then to E, as a progression of fourths. The chord roots of bars 4 - 8 do not appear to fit into the pentatonic scale that is the basis of the thematic material.

Section A proper begins with a slightly reduced tempo in bar 9. For two bars the tonality is established by the motive onto B, played by the viola while the other parts distract from it. Two bars of pedal B in 11 - 12 underpin the motivic idea stated in full by the violins. Bars 13 - 16 are essentially a repeat of 9 - 12 but this time there is an implied B minor cadence at the end of 16 which leads to the most convincing use of B as a tonality so far. Bars 17 - 19 state the motive onto B combined with harmony centred around B minor triads. This is the first time that the idea has been fully tonal. Furthermore, the roots of all the chords in these bars are taken from the pentatonic scale on B; B, C#, A and F#.

B minor \rightarrow C#7 \rightarrow B minor. B minor \rightarrow A augmented \rightarrow B minor. C#7 \rightarrow F#minor? \rightarrow B minor?.

The passage involves whole tone chordal progressions from B, to A and C#, and ends with a perfect cadence.

The complete thematic idea is then compressed into a single part in 19 - 20. The tonality in the second bar is provided by the conventional bass line built on fifths. The chord structures on the offbeat of bar 20 comprise added fifths. This leads to two other statements of the fragment onto B in 21 and 22. The harmony accompanying the restatement at 21 begins by reinforcing the implied B tonality, as at bar 17, and the

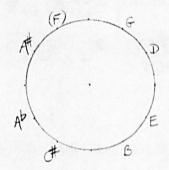
dynamics are increased to mf. However, the harmony in 22 shifts to G#, a pitch in the same axis as B.

The complete idea is restated as a single line in 23 - 24 but now beginning on F# not C#. This means that the anacrusis onto B is not now placed at the beginning of the bar, and thus emphasised, but at the end. However, a crescendo accompanies the line and the climax on the fourth beat of 24 creates an ambiguity of stress on B. The bass line fifths in 24 are now a tone higher than originally and the offbeat chords are conventional triads not added fifths. This leads to a more conventional theme played by the 'cello from bar 25.

A new part of section A begins at bar 25. The accompanying material is based on the opening thematic idea of the movement and this is the justification for including this passage as part of the first section. Thematically, the style is more expansive than anything so far in the movement. Also, the new 'cello theme is not pentatonic. The theme implies B minor but its first climax comes on Ab in bar 28 where there is an accompanying flattening in the upper parts. Also, a pedal D in the viola, as the lowest sounding pitch, in bars 27 - 29, has the strongest tonal influence. Tonal ambiguity is increased in these bars by the unsettled nature of the upper parts.

The 'cello theme, 25 - 31(1), appears to be based on symmetry. The arrangement on the circle of fifths indicates symmetry around both subdominant axes of the work. A scalic arrangement produces an octatonic pattern. However, F is an absent counterpole and complete symmetry is avoided.

Figure 53.



C# D E (F) G Ab A# B

121 21 21

Bars 31 and 32 form a link between the two statements of this second theme.

Figure 54 overleaf.

Figure 54.



The link is achieved via the D/G# axis as all the motives in these bars begin on one of these two pitches. The second theme returns in bar 33, now played by the viola and down a semitone from the original 'cello statement. This means that the theme has symmetry on the dominant axes, anticipated by the use of D/G# in 31 - 32, and the absent counterpole is now E.

The first part of this flowing second theme is used imitatively, in a rhythmically compressed form, from bars 39 - 43. There are some intervallic changes; in 39 fourth and whole tone replace major third and semitone. However, the overall shape is virtually the same. As the theme now falls at the end rather than rises, the outline is a fifth not a minor third. The entries of the theme are consistently on G in these bars. This forms a major third with the B that opened the first playing

and these two pitches reflect the overall tonal architecture of the work. The thematic fragments now introduce major/minor third conflict, as B and Bb, the pitches that began the first two, complete statements of the theme. This refers back to the first movement, where this semitonal conflict was introduced. By using both thirds, a symmetry is formed.

B C D Eb F# G A Bb

121 3 121

The link of bars 31 - 32 is repeated in varied form in bars 43 - 44, now on the C/Gb subdominant axis. It is followed by a version of the pentatonic idea in the 'cello, beginning in 45. It begins on the original pitch, now expressed as Db. However, this time, the idea is neither pentatonic nor symmetrical because pitches are altered. It is the opening pitch that prevents symmetry; to achieve this, the idea should begin on D. Therefore, the D/Db conflict is reintroduced by implication. A significant fragment is played by violin 1 in bar 46. It is a counterpole repeat of the opening pitches of the movement but it is also a rhythmically altered version of bars 40 and 41, violins 2 and 1. The fragment anticipates the new continuation of section A from bar 57, but the fragment at 46 demonstrates the link between all three parts of the thematic writing in this first section.

The continuation of the original section A material from bar 48 is still assymmetrical. The pitches of the outer parts to bar 50 are based

on added fifths with a Db/A outline, like the original pentatonic writing, but C is now used as an extra pitch to this and it is this which breaks the symmetry. The symmetry based on B is restored in bars 51 - 53 in the first violin and viola figures. An F# pedal in the bass from 51 acts as a dominant preparation. By combining it with C# a stronger tonal implication is achieved. Bars 48 - 54 comprise a gradual building up of tension. The crescendo is broken off at the end of 53 and after a brief rest at the beginning of the next bar, rising chromaticism leads to the final part of section A.

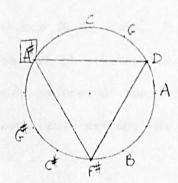
This begins in bar 55 with the tonal version of the pentatonic idea, in B minor, as at 17 - 18. Now the writing is given more emphasis as the dynamic level is ff. there is a fuller chordal texture and there is thematic doubling at the octave. The original pentatonic idea is restated by violin 2 in 57 - 58 while violin 1 and viola have a new thematic continuation to the B minor fragment. This continuation is based on the pentatonic idea and, as mentioned above, also links to the second theme of the section. Rhythmically, it is based on bar 46.

The chordal writing in bars 55 - 65 creates the strongest B minor so far. Bars 55 - 62 comprises chords whose roots are added fifths from G to C#. D is omitted from the pattern but is replaced by its counterpole, G#. A new chordal texture is introduced in bars 63 - 64. It is followed by a climactic E major chord at 65 which forms part of a

plagal cadence in B minor. E was the first thematic tonal implication of the movement, and the first climax of the introduction was on E in the bass. [This was actually part of a C# chord.] This cadence is the start of increased emphasis of B as a tonality. This is initially achieved by pedals in 66 - 72(1). Above them, violins 1 and 2 anticipate section B material in 66 - 73. The violin lines take pitches from G to C# on the circle of fifths and this seems to refer back to the chord roots in bars 55 - 62. E# is the only pitch in these two lines to lie outside this and this is used, possibly, to anticipate the F tonality in bars 74 - 76(1).

After the pedal B moves from 'cello to viola in bar 70, the music becomes quite chromatic. The figure from bars 9 - 10 is re-used and extended. It now forms a complete line from 70(3) - 77 and ends the section. By putting the pitches in scalic order and on the circle of fifths, a symmetry on A# is observed.

Figure 55.



A# B C C# D F# G G# A A#

111141111

This A# symmetry introduces an element of conflict as the main tonality of the movement is B. A# is the counterpole of E which was emphasised a few bars earlier. As the opening symmetry of the section was on B. a progression of a fourth can be said to be implied if A# is an extension of E.

Bridge uses a G# to D bass movement twice in the closing bars of A. 74(4) - 75(1) and 76(2) - 78(1). This leads to D as a tonality at the start of section B.

Section B continues in the tonally fluid style of section A but whereas the former took time to establish B as a tonality, section B has a strong sense of D major from the fifth bar, 82. This is achieved by D on the first beat in the bass with a D major chord above. This is reinforced by a perfect cadence in 82 - 84. It is of note that the A as chord V is approached from its Eb counterpole. In 85 these two chords alternate. This progression refers to the underlying symmetry of the work and shows how the counterpole extends the cadence. In 86, Eb and D alternate as V - I.

Figure 56 overleaf.

Figure 56. Section B.



Section. B starts with four bars of shifting tonality. Bars 78 - 81 is tonally a series of rearranged fifths that have a major third outline. F# to D. From bar 82, there are five bars of D major tonality. This has a conventional, relative relationship to the B minor of the first section. The pattern of fifths is repeated but this time it does not lead to a

settled passage on D as the music keeps shifting through the same pitches [D.A.E.B.F#] in a different order as far as bar 100. From 97, A is dropped and replaced by G.

In bars 101 - 109 a new set of tonal relationships is created using G, Bb and Db, all tonic pitches in the work. One significant point about this is that Bb has replaced the B both of the section and the movement and thus this particular semitonal relationship is brought in again. From 109(3) - 112 a new pattern of rearranged fifths is used, this time with a minor third G to Bb outline. This passage begins on the G which concluded the previous patterning of fifths, bar 101. Bb is briefly replaced by B at 114 but this is short-lived as section A is about to return. The section ends with a short passage on D.

Figure 56b) shows that all the main relationships to D in section B are A and G as V and IV. Db is also used as a way of maintaining the semitonal relationship from the first movement. However, this relationship is considerably less important here than formerly. This Figure also shows that the section is tonally cyclic.

The opening four bars of the section, 78 - 81, contain three strands, a tonal bass, consecutive major thirds in the inner parts and the theme at the top.

Figure 57.





The bass writing supplies the tonal implications and this has already been discussed. It is notable that the grace note figure here strengthens these tonal implications. The theme is straightforward in its construction, being tonally centered in D major. The inner parts are of

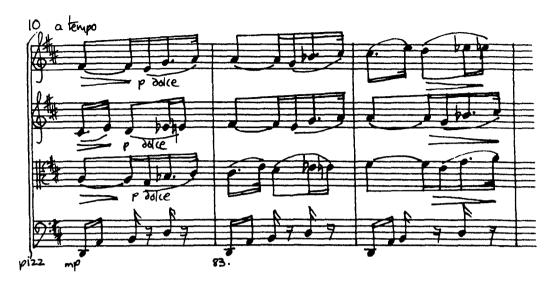
interest as this is the first time that there has been an extended use of parallel major thirds. Their consistency indicates that this is not merely an accident as a result of harmonic progression. By placing all the pitches involved in this major third writing on the circle of fifths. two structures of interlocking major thirds result - F A C# and Bb D F#. This places the major third structure in a conventional context. These four bars come four more times in the section, bars 87 - 90, 97 - 100, 109 - 112 and 113 - 116. The second plaving is an exact repeat of the first with rearranged parts. The third statement introduces two new tonal triangles of interlocking thirds - F# D A# and D# G B, thus removing the progression of a fourth. Although the fourth plaving is different to the third, the same structures of thirds result. Were the progression to continue, one would expect D# G B and C E G#. The last playing of these bars is essentially the same as the first two and so the progression is cyclic and symmetrical.

Bar 82 is the start of more settled writing. Tonally, it is clearly in D, established by a perfect cadence. However, the two approach chords to the D major? at the start of 82 are augmented and are the two interlocked major third structures from the inner parts of bars 78 - 81.

Bb D F# leading to A C# F leading to D major? The D major passage begins with one bar repeated twice, the upper parts swapping material.

Figure 58 overleaf.

Figure 58.



After repeating the first four bars in 87 - 90, the writing beginning at 82 is repeated from 91. This time the material does not stay in D major but modulates. Also new is the way each bar ends with a tritonal harmonic progression. Eb to A to end the D major bar, 91, G to C# in F#, 92, and Bb to E in A, 93 and 95. A significant moment occurs in bar 94. Violin 1 and viola descend chromatically, a major third apart and both have a major third outline, C# - A and A - F. Together, this forms the interlocked structure F A C#. This is reinforced by the cadential progression at 94 - 95 which involves F major to A major?.

The third playing of the section B main theme begins at 101 and is again modulatory. This time the tonalities are all tonics. G. Bb and Db. The tritonal harmonic progressions which ended each bar previously are now omitted. There is a subtle change to the bass line as the final note

is held and the semiquaver rest removed. As this is a transitory tonal passage, the perfect cadence at the end of each bar is avoided too.

The climax of the section comes in bars 105 - 108 with four bars of chromatic writing based on the opening material. For the first time, all four parts are semitonal. Although the music has been tonally shifting already, at this point tonality is positively avoided. Such a passage is indicative of the increasing importance of rejecting clear tonal references.

This leads to two statements of the opening of section B based on shifting tonality, 109 - 116. The end of the last bar is emphasised by the pauses onto A in the bass. Otherwise, bars 113 - 116 are the same as 78 - 81. This is followed by the material from 82 - 83 at 117 - 119 and thus D is firmly re-established as a tonality.

The repeat of section A is largely built on the original. The introduction is re-positioned to form part of a coda. The D major tonality from the end of section B is retained to form a link between the two sections. The old tonality is retained for six bars. This is almost the opposite of the procedure at the end of the first section A where the thematic material of the following section was anticipated in the closing bars of the former. Bridge often overlaps sections in these ways. The

use of D at the beginning of the recapitulation does not hinder the return as this pitch is in the same axis as B, the expected tonality, and there is a clear restatement of the thematic material. Tonally and thematically, bars 126 - 151 are the same as 17 - 42. In bars 153 - 161(2), tonal changes are introduced in the lead to the extended chromatic writing which lasts from bars 159 - 191. A and G are inserted as new tonalities before the F in bars 159 - 160(1). This is followed by C rather than Db and E and this forms a tritonal progression with the following F#. There is more repetition in bars 164 - 179 (51 - 65). G is then inserted as an extra pitch to lead to B in 182 - 186(1). The addition of G twice in this recapitulation may be as a reminder of the G - B - G tonal architecture of the work. The movement concludes with the tonal fluidity of the introductory material.

A comparison of Figures 48c) and 59c) shows the basic tonal similarity of the outer sections.

Figure 59 overleaf.

Figure 59. Section A2.



Figures 48d) and 59d) show that the latter is a tonal reversal of the former as the original B to G# is replaced by D [counterpole of G#] to B.

The six bars at the beginning of the repeat of section A are based on the pentatonic idea but now the shifting tonal character of the music is removed as it is all on a D major chord. Another difference is that the idea begins on E not C**, possibly to avoid a D/C** clash. However, this is also an implied D/Db reference. The last four bars of this passage repeat the AF** of the theme over the D major chord to enhance the D tonality. The tonal recapitulation occurs at 126 with the repeat of some of the original material.

The passage of repetition is ended so as to avoid the build up to the climax, originally in bars 45 - 56. This is moved to later in the movement to be nearer to the end. A climax at this point would overshadow the final one. Instead, Bridge reworks material from 57 - 58 and 61 - 62 to make five continuous bars. Bars 154 - 158 are a major third below the original passage and placed over a pedal G which suggests a resolution on C. Typically, the G is preceded by Ab and this is a further example of a pitch and a chromatic alteration of it put closely together. Also, Ab is the counterpole of D, the dominant of G.

An emphasised passage on F occurs in bars 159 - 160(1). This is possibly used for its conflict with F# which is used tonally from 164. The passage on F reiterates a fragment based on the pentatonic idea but now it is not authentically so. However, it is still based on symmetry with the pitches rearranged.

Ab C Eb G

4 3 4

F. as the tonality, displaces the symmetry. The idea is gradually sharpened from bar 161, to become A C# E G# before leading into a repetition of material from bar 49 and a return to the pentatonic scale. 162(3) - 177 repeats 49(3) - 64. At the end of this passage, the move to the fortissimo E major chord is postponed as the top line moves up semitonally over an EB bass. This provides an extra bar to sustain tension at this point.

This time the plagal cadence is avoided as the E major chord in bar 179 is followed by G major instead of B. This may be to anticipate the G major tonality of the finale. Eventually, B is reintroduced for the coda in bars 182 - 195. This concluding passage replaces the end of section A1, which anticipated section B.

The coda, at the end of A2, begins with four bars of tonic pedal B in the bass. In one sense, this implies that the coda is a resolution of the movement's tonal conflicts. However, at the start of the passage, one

might expect a dominant F#, in order to lead to the final B. By using the tonic here instead, Bridge is anticipating the E major at the start of the finale. In addition, tonal ambiguity is created in the upper parts. The pentatonic idea is shared by the violins but this is not a straight run through of the theme as there is continual doubling back. In this way, the theme only gradually moves up. Because the pentatonic material is now put over a pedal B, the theme no longer has any tonal implications. The viola line at the beginning of 181 moves down chromatically from G to C# and these two pitches are then oscillated for two and a half bars. This ensures that G and B are kept in close proximity.

The pedal B ends in 185 and bars 3 - 6 are repeated in 186 - 188. Bars 189 - 191 repeat the pentatonic theme in its original unaccompanied form, thus reintroducing the tonal uncertainty. The line is ended in 191 with the fragment of theme onto B but the effect of this pitch as a tonal base is shattered by the ensuing chromaticism of 192 - 193. B is actually placed in the second violin as a pedal but this is overshadowed by the chromaticism of the other parts and there is no question of this forming a tonal base. The writing at the end of the movement is chordal, 192(2) - 195. Four chords are used twice here.

- 1. FGAB made up of whole tones with a tritonal outline.
- 2. CEG#B interlocking major thirds with added fifth, B. The interlocking major thirds have a whole tone basis, C(D)E(F#)G#.

- 3. EbGBF interlocking major thirds with added counterpole (F) to B. Again, based on whole tones.
- 4. BDF# only chord which can be explained in conventional terms.

The roots of the chords are F C Eb and B and the progression forms intervals of fifth, minor third, major third and tritone between these roots. The bassline pitches are G C F B which forms a series of fourths followed by a tritone and major third.

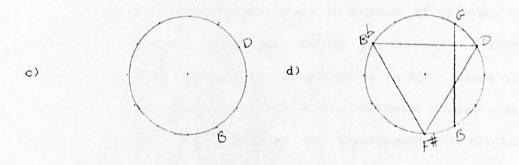
Figure 60.



The movement ends conventionally with a perfect cadence in B minor. However, the dominant seventh omits the fifth, C#, and therefore the chord forms an interlocked tritone and major third in F# A# E. Therefore, the movement can be said to end in an entirely suitable manner, by combining symmetry and convention.

Figure 61. Tonal Framework of Second Movement.





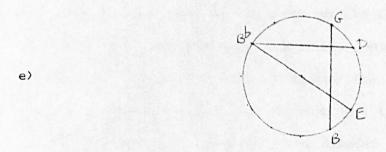


Figure 61 shows that, despite the chromatic nature of the music and the frequent ambiguity, there is an underlying tonal architecture. 61a) shows all the main tonalities, 61b) rationalises this and includes certain octave displacement for ease of reading. 61c) shows that the movement is centered exclusively on dominant tonalities, with B at the centre of symmetry. 61d) shows all the main tonalities of the work so far and this compared with 61e), which shows all the main tonalities of the work, indicates that E is the only important pitch not used so far.

The use of the pentatonic scale as a means of creating symmetry in the second movement is a new feature of the work. Sometimes the pentatonic writing is tonal but sometimes it is not. Where the thematic writing is accompanied, it is not tonal. Although symmetry and tonality are not necessarily compatible, the arrangement of pitches in this pentatonic writing often makes them so here. Part of the pentatonic idea, on A leading to B, gives a firm, conventional tonal base on several occasions. Important tonalities in the work are not only clearly defined but they are usually prepared, as in the way that G is reintroduced in section A2 as a way of anticipating its use in the finale. movement contains some of the most tonally shifting music to date, and as in the first movement, there are some passages that are difficult to Like the first movement too, there is overlapping of determine. However, the writing is much less taut now and the feeling is that the music was conceived on a broader plan. Whereas the first movement created the impression that every note counted, the second

movement seems to have been planned in terms of short passages. Like its predecessor, the second movement finds ways of creating a sense of tonal ambiguity that weakens the structural significance of important pitches and thus permits further tonal development.

There is some reference to the underlying symmetry of the work in this movement although, in part, its function is slightly altered. features as an important thematic pitch where a fragment onto B is repeated. In the central section, A is a conventional dominant in D major but Eb to A harmonic progressions also feature here. With the return of section A, A is an important thematic pitch again, initially in D major not B minor. However, there is a body of evidence to suggest that the E/Bb axis, which has a dominant relationship to A/Eb, is an important structuring tool here. E is the first tonal implication of the theme and the final tonality of the introductory The putting together of A and B in the theme of section A, bars. mentioned above, forms symmetry round E. The repeat of the second theme of section A is on Bb, bar 33. The climax of the section begins in bar 49 with the motivic theme onto E and this is followed by a rising scale starting on A# which in turn leads to the apex of the climax with the thematic pairing of A and B, bar 55. The final climax of section A is on a chord of E. At the end of section B, Bb is an important tonality and it is followed by A, 111 - 112.

The finale is formally ambiguous. The first two movements had sections that were clearly marked, often by a ritardando and a coming together of the parts. These features are less in evidence in the The basic framework is sonata form but material from the first movement is added to this. This method is typical of Bridge and was one way of achieving unity and of suggesting cyclic structure. The movement starts with a 26 bar introduction. The exposition The first two are similar and pentatonic and contains four themes. therefore can be said to be the first subject. The two themes begin in bars 27 and 63. A different type of writing starts in bar 87. style is more flowing and therefore more redolent of the second subject of the first movement. In this part of the movement, the first subject of the first movement is reintroduced. There is no clear break between this section and the next, beginning in bar 115, the second subject. However, the repeat of the second subject, from bar 133, is approached by a coming together of the parts and a slowing of the tempo in 131 - 132. This means that the first playing is almost like an anticipation.

The development lasts from 153 - 236 and uses the first subject and the transition and the first subject of the first movement. The recapitulation begins with the second subject. It is followed by the first and second subjects of the first movement and then by the first subject of the finale with its two themes in reverse order. This reversal of themes reinforces the cyclic form. The movement ends with

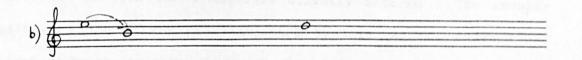
a coda, beginning in bar 349. The transition is omitted from the recapitulation, presumably because of its use in the development.

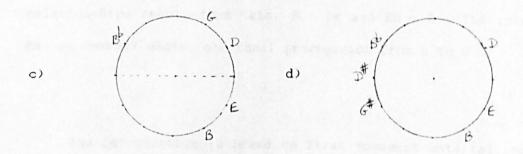
The finale is not merely a bland resolution of the tonal conflicts presented in the earlier movements. The main tonality, G major, is omitted at the outset as the introduction begins in E major, another tonic pitch. This is fairly quickly followed by dominant axis pitches, the second of which is retained for the opening of the first G major is used twice in the second part of the first subject but the final playing of the material from 79 is in Eb. subdominant is used at the start of the transition and again tonality fuses the sections together. D as dominant returns in the second subject and is also carried over to the development. recapitulation begins on D, which is conventional where the order of first and second subjects is reversed. However, G is omitted from the repeat of the first subject from 283. The music is tonally unsettled at this point as all three areas are present. Tonal resolution is only achieved in the coda and even at this late stage there is a diversion to the E tonality from the opening of the movement. This is an outline of the movement's tonal working; much is contained within this.

The introduction is clearly delineated, despite the insertion of the first subject's accompaniment in the closing bars, 25 - 26. Figure 62a) shows all the tonalities.

Figure 62. Introduction.







Main tonalities of work. All tonalities of introduction to finale.

A comparison of Figures 62c) and d) shows that there is great similarity and this points to the significance of this introduction. Only G, the work's main tonality, is omitted from the first section, this to avoid anticipating the final conclusion of the movement. D# is not one of the quartet's main tonalities but its use here may point to the D#/Eb/A axis being the basis of symmetry of the work.

The opening E tonality is approached from the B minor chord at the end of the second movement, thus forming a perfect cadence. progression was anticipated in the second movement with the use of plagal cadences in B, as, for example, at the climax of section A, bars 65 - 66, where the E major triad is greatly emphasised. returns in A2 with the E emphasis slightly altered. The opening tonality of the finale is established by this perfect cadence and reinforced by the thematic writing. From bars 2 - 4(1) an inner pedal takes over. This leads to B in bar 5. Once again, chromatic alteration is used tonally with B/Bb and E/D#/D. Major third relationships result from this. B - D# and Bb - D. The introduction has an overall whole tone tonal progression from E to D.

The introduction is based on first movement material, mostly the second subject but also the first subject. The first movement's second subject which opens the finale is stated in E, the counterpole of the Bb which was originally used for the theme. As before, this theme is played in tonic axis tonality. It is now stated by violin 1 and it is a faithful playing from bars 1 - 11(1). This means that the same tritone occurs at the apex of the theme but now the pitches are a reverse of the original theme in Bb. D to G# instead of G# to D. The pitches of the idea when placed on the circle of fifths have the same D/G# outline but the fifths are on the sharp not the flat side of the circle. As before, B is at the centre of symmetry which now forms a fifth with the E tonality rather than the semitone with the Bb in the first movement. Where the tonality moves to B in bar 5, thematic

material and tonality are one and the same. The accompaniment to the first movement material is new.

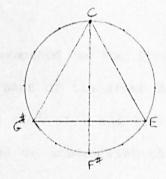
Although there is a perfect cadence formed between the movements, the rest of the introduction has a fluid harmonic style that is not reliant on such conventions. Where there is any traditional harmonic writing, it is considerably obscured. The first four bars are typical of the type of chords and harmonic procedures used.

Figure 63.



E major is established thematically in the first bar without accompaniment. It is reinforced in bar 2 by an E major chord. This is followed by another tonic chord. C# minor, a close relation of E major. This lasts through the middle of bar 3 and is followed by a semitonal shift to C augmented at the end of the bar. This is the start of less conventional chord structures now that the tonality has been established. Bar 4 retains the C augmented initially and it is followed by A augmented with B as an added counterpole to E#. The next chord is more unconventional. One way of explaining it seems to be as added fifths. E.B.F#. with C as an added counterpole. The bar ends on F#9 which comprises interlocked major thirds with counterpole.

Figure 64.



The chords in bar 4 are all built on interlocked major thirds, sometimes with a counterpole to one of the pitches added. Three of the chords can be explained in conventional terms but there is a second possible explanation, via the circle of fifths.

Figure 65 overleaf.

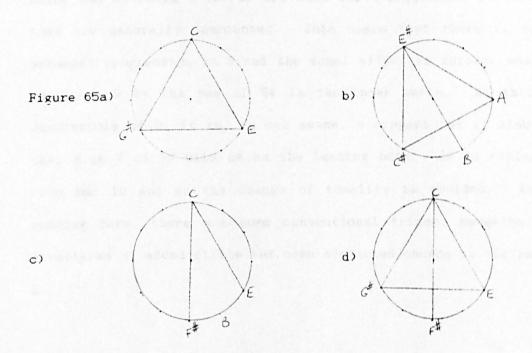


Figure 65a) is the C augmented on the first beat of 4, 65b) is A augmented on the second part of the first beat, 65c) is used on the first part of the second beat of 4 and 65d) is used to end the bar. This progression is based on subdominant chords, C, A and F#. The pitches of the first chord are subject to fourth shifts and a tritone is added. This augmented fourth and A are moved a fifth to the next chord. C,E and F# of the third chord are retained in the last one. G# replaces the B of the third chord and the first chord is returned, now with F# as a counterpole. This nearly results in a cyclic progression but there is an implied shift from C to F#. This four bar passage is typical in its use of conventional and less conventional chords. There is no obvious pattern in the way that the chords are used.

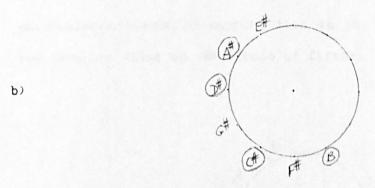
The move onto the pedal B in bar 5 implies the tonality of b major and although B chords are used quite frequently in bars 5 - 15 they are generally unaccented. This means that there is no strong harmonic progression in B and the tonal effect is further weakened in bars 6 - 9 by the use of E# in the inner parts. As this is the counterpole of B, it is, in one sense, a support but it also implies that B is V of F# with E# as the leading note. E# is replaced by b from bar 10 and so the change of tonality is avoided. As in the opening bars, there are some conventional triads, sevenths, ninths, structures of added fifths and some augmented chords in the passage on B.

The next tonality is D# and this is linked to B thematically. In bar 14 the 'cello begins the first subject of the first movement on D# and thus hints at the new tonality. The pitches of this beginning placed on the circle of fifths with the pitches that would continue the theme imply a symmetry on the B/E# axis.

Figure 66 overleaf.

Figure 66a)





[Ringed pitches in b) represent actual pitches played.] B/E# is a whole tone from the A/Eb axis which was the basis of the original version of the idea. B and D# are present in the fragment of theme used and have a highlighted position, forming the falling sixth on which the extract ends.

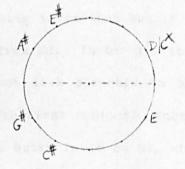
D# is established because of the bass pedal. This is a favoured way of establishing and maintaining tonalities in the finale. This method is more in evidence now than in the first two movements.

Neither harmony nor theme support this pedal. The use of D# here may

be linking back to the A/Eb basis of the tonal architecture of the work.

Above the D# pedal in 16 - 17 the upper parts move together and form chords of C# and A#. These pitches are dominants of the D# tonality. A similar passage which comes later (22 - 24) suggests that all the pitches have another significance although there is no particular evidence to support this in 16 - 17. The pitches of the two bars are shown on the circle of fifths.





This shows that the pitches have a symmetry around the A/Eb axis of the tonal symmetry of the quartet. In fact, this arrangement of pitches in 16 - 17 is almost a counterpole version of the tonal architecture, as shown in Figure 4. This gives considerable importance to the passage. It is not altogether surprising that a few bars concealed in a relatively insignificant position in the work should reflect the overall framework of the piece. Bridge was a composer who was keen to cover his tracks.

For nearly four bars all tonal implications are removed. Most of this passage, 18 - 21(1), is based on the first movement's second subject again, now down a minor sixth, starting on G# rather than E. The theme is considerably altered and now there is no tritonal outline of fifths when the pitches are placed on the circle of fifths. However, as it stands, there is an overall progression from G# to D, 18 - 21(2). This is the tritone that was used at the apex of the original version in the first movement. The theme is given a new chromatic accompaniment.

In bar 21, the 'cello plays a part of the first subject of the first movement. The opening is omitted but it would have begun on D, the tonality to be used from 22. In bar 19, the 'cello played D C Bb and although this does not link directly to bar 21, it is possible that it is the start of the first subject. Another possible beginning of the theme in 21 is the entry in 18 on G#, which is the counterpole of D.

Figure 68 overleaf.

Figure 68.

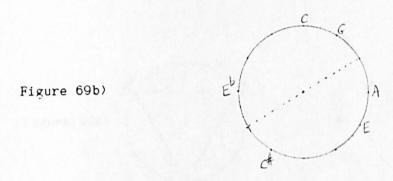


As mentioned above, bars 22 - 24 are similar to 16 - 17. The D# pedal bass of the earlier passage is put down a semitone to D. One notable difference to the previous passage is that the upper parts are clearly interdependant as they use the same pitches.

Figure 69a)



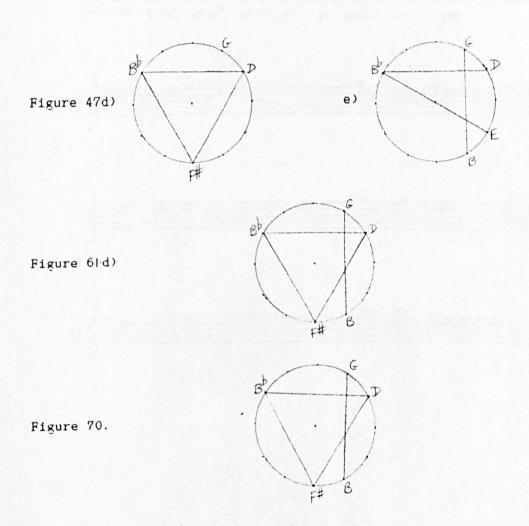
By placing all the pitches on the circle of fifths a symmetry around the G#/D axis is shown.



This is a tritonal shift of a fourth from the earlier passage. Now the tritone matches the tonality, D. The resulting chords in the upper parts are mostly A and C, being an extended V in D. The introduction ends on a D major chord in D tonality which implies a dominant of G. This conventional resolution is not brought about.

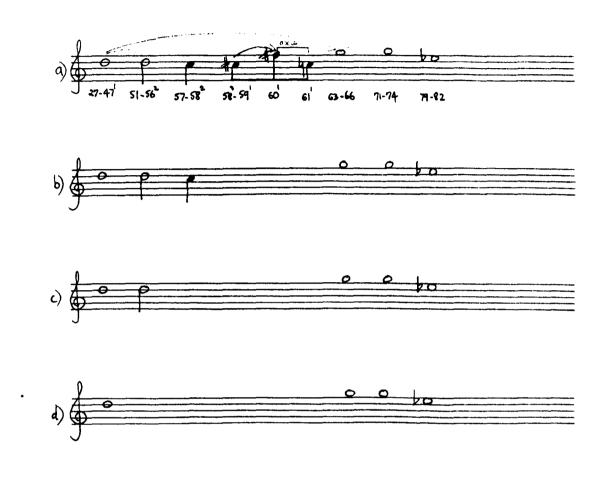
The first subject of the Allegro vivace comprises two parts, 27 - 62 and 63 - 86. The first is based tonally on D, the second on G. The latter is the expected tonality but it is now used in the major mode. The transition from minor to major in a work is not unusual but in the present work it explains the Bb/B conflict, between minor and major third. The pitches of the three main triads of the quartet. G minor, B minor and G major, when placed on the circle of fifths, draw together the main tonalities of the first movement, those of the first two movements together and of the work as a whole. This means that

they are a composite of Figures 47d) and e) and 61d). I requote these three examples below with the pitches of the three triads in Figure 70.



Pedals are used to establish firm tonal bases for much of the first subject, which is tonally much more stable than anything else so far used in the quartet. This is clear from Figure 71 overleaf.

Figure 71. Exposition. First Subject.



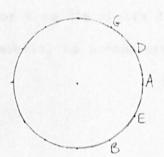
The first part of the first subject begins with a pentatonic idea which is played by the second violin in bars 27 - 31(1). Its basis is not the same as the idea in the second movement. The scale now is G A B D E whereas the pentatonic scale in the previous movement was A B C# E F#. However, the two thematic ideas are similar in type as both are

fast and light and, initially, at a low dynamic level. A is the centre of symmetry now.

Figure 72a)



b)



ABDEGA

2 3 2 3 2

The continuation of the idea by violin 1 from 31 - 34 adds new pitches but these [C. F# and D#] still point to A as the centre of symmetry, now with D#.



This links to the tonal architecture of the work. Also, this axis relates to the axis progression at the end of the introduction, where A/D# led to D/G#. A cyclic progression is now formed with this third axis. However, the basic symmetry of bars 27 - 34 is disturbed by the pedal D which provides the tonality. This pitch is the thematic goal of the first four bars but the symmetrical balance is somewhat restored by the emphasis of E in the violin 2 phrase. As if to point to A as the centre of symmetry, is accompanies the pedal D until bar 42.

Another strand is provided by the viola in bars 27 - 34. This line is based on C major and C minor arpeggios and seems to lie outside the pattern of symmetry. As an independent line, its 3 1 3 symmetry [C Eb E G] is not particularly significant but in addition to this all the pitches are contained within the thematic pattern of symmetry.

These eight bars are repeated with some rearrangement of parts in bars 35 - 42. Bars 43 - 44 repeat the beginning of the second half of

the theme with a new countersubject beneath but the symmetry is preserved. This is the start of sequential writing in this movement, based on the material and as extra pitches are added, the symmetry is removed.

There is a return to the start of the first subject in 51 but it is altered as a second, shadowing part is added. The two upper parts move together, a sixth apart until bar 55. On the circle of fifths, all the pitches involved have a consecutive outline from C to F#. The lower parts, meanwhile, are chromatic, using all pitches bar D# which is reminiscent of the earlier symmetry. This playing of the first subject is marked forte, which is a contrast to the quiet beginning of the theme. There was a gradual increase of the dynamics in the intervening bars but the climax does not come until the start of the second half of the first subject in bar 63.

In bars 55 - 58 violin 2 repeats the original first subject entry but with A added at the start, possibly to point to the A/D# basis of the theme. A new accompaniment is added and the new tonal base. D in bars 55 - 56(2) becomes C at 57 - 58(2). C falls outside the thematic symmetry together with the first violin line, which shadows violin 2. The four bar passage builds up to a climax on C# at the end of 58. This means that D and Db/C# are once more in close tonal proximity. The C#9 chord is approached from alternating C and A chords from 56 and they form a kind of plagal cadence with C# as C and A are in the

same tonal axis as F#. the subdominant of C#. Eventually, the music moves to G as a tonality from 63 so D and C# in turn can be thought of as a dominant to tonic movement, C# being the counterpole of G.

In the short term, the C# chord leads to a new thematic fragment on G. This, in 59, is the start of chromatic writing. In 61 and 62 the two upper lines descend chromatically, a major third apart. Underneath, the bass has two tritonal outlines in 60 - 62, F# to C and Ab to D. These two elements point to an important structural moment, the end of the first part of the first subject. The tritones move in contrary motion onto G as the new tonality in 63.

The justification for including the writing from 63 with the first subject is that it is also pentatonic and in two four bar halves, like the first part of the section. Furthermore, the theme is based largely on G, the expected tonality of the section. This part of the first subject consists of three playings of the new theme, all fortissimo. The first two are on G, the last on Eb. Not only do these two pitches form a major third, but their real importance is as the main tonality of the work and as one of the pitches of the implied axis of symmetry that underlies the quartet's structure.

Bars 63 - 66 are built on the same pentatonic scale as the original opening of the first part of the subject, G A B D E. There

is a shift of emphasis as the underlying tonality is now G not D. The pitches of the theme are arranged so as to give a strong V-1 and this is reinforced by a GD drone in the bass.

Figure 74.



The pitches of the inner parts form a C to F# tritone when placed on the circle of fifths. This means that, like the theme, the centre of symmetry is A.

The continuation of the idea in bars 67 - 70 is not pentatonic and is tonally imprecise. The upper parts once more move in consecutive major thirds, based on G B D# in 67 - 68 and on D F# A# in 69 - 70. These two structures reflect the preceding G tonality as extensions of I and V.

Figure 75.



Bars 71 - 78 repeat this material, the first half exactly as before, the second part down a fourth from the original. The upper lines of the second half, therefore, are based on a different pattern of major third structures, C E G# and G B D#. This produces a cyclic pattern, based on a symmetrical arrangement of fifths, as the roots of the major thirds form C G D.

The third and final statement of the second theme begins in bar 79 and uses entirely different pitches and tonality. The idea is transposed down a major third to Eb. A has been an important pitch in the movement so far, as the centre of symmetry of the pentatonic scale that has dominated the thematic working. Now its counterpole is used as a tonality. This is further evidence to support the premise that the A/Eb axis is the basis of symmetry of the quartet as a whole.

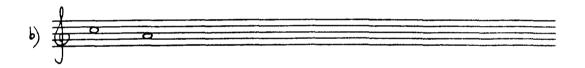
The major third outlines in the second half of the theme, 83 - 86, are the same as in 75 - 78 but there are enharmonic changes which result in a progresion from Ab C E to Eb G B: Ab + Eb replaces the C + G of 75 - 78. This reflects the preceding Eb tonality.

In bar 87 there is a change of material. It is not pentatonic and it is similar to the second subject of the first movement. The dynamics are reduced from ff to p. All these changes point to a new section, the transition. This is strongly tonal to start with. on C.

This pitch continues the progression of a fourth in the first subject, from D to G. The climax of the transition comes towards the end of the section, at 103(2) - 105 (1), on A, with Eb, the most important subdominant pitch of the piece. From 105(2), the music becomes tonally less stable as tonal anchors are no longer placed at the bottom of the texture and as the pitches are changed more quickly.

Figure 76.





The tonalities shown in the above example use only tonic and subdominant pitches which, when placed on the circle of fifths in Figure 77. have a symmetry around the B/F axis. This may further explain why the first subject was transposed onto Eb from bar 79 as this version of the theme had F as its centre of symmetry.

Figure 77 overleaf.

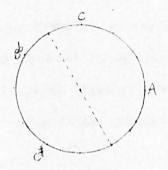


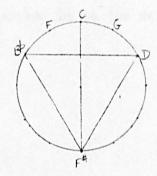
Figure 77.

The theme at the start of the transition is more smooth flowing than anything else in the main body of the movement so far. Its affinity with the second subject of the first movement ensures a recall of this movement's introduction. The theme is doubled, played by violin 2 and 'cello a third apart. These two versions have tonal implications of G minor and E minor, both tonic pitches. However, there is ambiguity as there is a pedal C, a subdominant axis pitch, at the bottom of the texture which lasts from 87 - 98.

In bar 89, the thematic instruments begin a two bar reference to the first subject of the first movement while the accompanying material continues in the viola. Violin 2 plays the beginning of the first movement's theme on D, a fourth below the original version. This means that the new pitches produce a different arrangement of added fifths on the tonal circle, with an E to Bb outline instead of A to Eb. This results in G being the centre of symmetry which links back to the transition theme in violin 2 two bars earlier and to the use of this pitch for the original statement of the theme. The viola

has a version of the first movement idea at the same time, starting on Bb but this is not hased on symmetry as there are several alterations. However, the Bb D pairing is used for entries in bars 93, 95, 96, 97, and 98. Bar 97 brings all parts together over a chord of added fifths with a Bb to D outline. The other pitches in the bar support this chord, as shown below.

Figure 78.



This emphasis of Bb D reinforces the reference back to the first movement as Bb and D. with F# and G, were the main tonalities of the movement. In addition, this major third is formed by contrary motion from the Eb/A axis.

Although there is a change of chord in bar 98, to C major9, this and the other pitches in the bar still appear based on the Bb D F# triangle, as shown below.

Figure 79 overleaf.

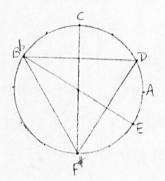


Figure 79.

This structure is carried on to the next idea in the transition. in bars 99 - 102(1).

Figure 80.



Both thematic lines, beginning on A and C#, and which are repeated in bars 100(3) - 102(1), are based on the Bb D F# structure. The full pitch content of the lines is C# D F# G A Bb.

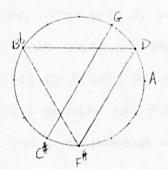
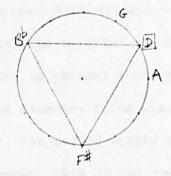


Figure 81.

The 'cello line in 99 - 100 has an additional symmetry, on D, which is possibly in anticipation of the second subject based chiefly on that pitch. The pitches of this line are shown below.

Figure 82.



D F# G A Bb D

4 1 2 2 4

The viola line in these bars is not based on symmetry as C# replaces G. The passage which begins in 99 continues the building up of tension by moving the material from the lower parts to the upper and with a crescendo in bar 101.

Like the first subject, the transition presents a gradual increase of the dynamic level, from p to ff and the climax is reached at 102(2). At this point, the parts are paired, with violin 1 and viola playing G A Bb and violin 2 and 'cello playing E F# G. Both these fragments have a tonic outline and put together they have an E/Bb tonic outline. This scalic arrangement of pitches may be part of a full octatonic pattern.

E F# G A Bb (C Db Eb E)

2 1 2 1 2 1 2 1

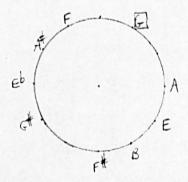
This climactic writing is followed in 103 - 105 by a reference to the first subject of the first movement, beginning on B in violin 1. This version is based on the G/C# tritone with E as the centre of symmetry. This means that this material is continuing the symmetry of bar 102 as the axis outline is changed from one tonic to another. E/Bb to G/C#, and the centre of symmetry being similarly altered, from G to E. Underneath this theme, the second violin shadows with a version of the same idea on G. However, this is not based on symmetry as there are intervallic alterations. These thematic entries on G and B are balanced by the use of A as the tonality at this point. This is reinforced by the first chord in 103 which is a kind of G9 augmented which incorporates G B A and D# and thus refers to the A/D#/Eb basis of the work.

igure 83.

This triangular structure reappears in the downward chromatic writing in bars 107 - 114 which ends the section. The line is first stated by the violins and then repeated by viola and 'cello from 111.

Figure 84.

B A# A G# G F# F E Eb



Althought the triangulated structure is the same as that used in the previous Figure. G is the centre of symmetry not D#/A.

The second subject is introduced at 115 in a rather unusual There is no clear definition to point to the start of a new Furthermore, there is no clear tonality at this point; this is held back until 133 where there is a conventional approach, using a ritardando and a tritonal bass line, to what is a tonal repeat of the second subject. The tonal ambiguity of the passage which begins at 115 is achieved by the chromatic nature of the music and the rather sketchy tonal implications are derived from the theme alone until 124. From here until 131, the music loses all tonal definition until the bass line resumes the role of tonal anchor. In 133 - 140, the music is structured above a pedal D, the expected tonality for the second subject. It may be that this pitch is avoided at the beginning of the section as it has already been used at the start of the first subject. Bars 145 - 152(1) repeat the tonalities of bars 123 - 132. Figure 85 amplifies this description.

Figure 85 overleaf.

Figure 85. Exposition. Second Subject.

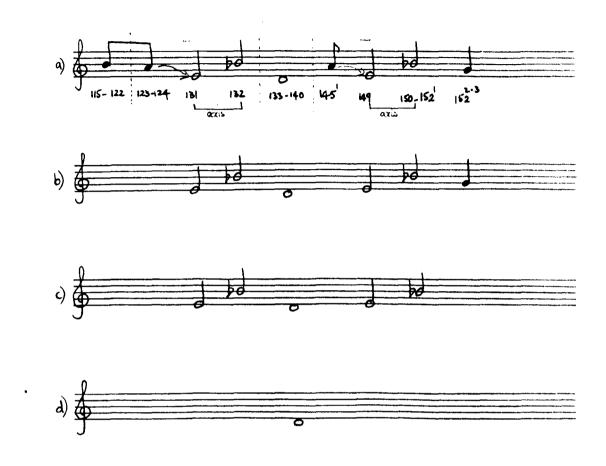


Figure 85b) shows how the E/Bb tritone leads initially to the main tonality. D. thus forming a minor sixth. Bb - D. The same tritone is used later to lead to G, but this minor third progression is less important as G is used but briefly. Figure 85c) shows the main tonality. D. flanked by the two tritones. These three pitches are the most important of the section. The full range of second subject tonalities links with the main tonalities of the quartet.

Figure 86 overleaf.

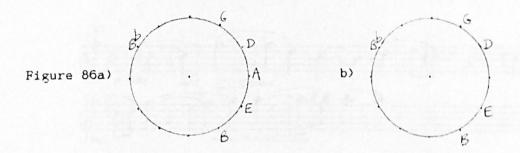


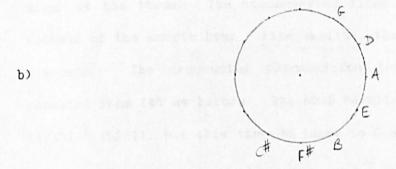
Figure 86a) shows the main tonalities of the second subject in the finale and 86b) shows the main tonalities of the work. The two diagrams are very similar, only A is extra in the second subject. This is an important pitch in the work.

The theme of the second subject is initially played by the first violin above chromatic, harmonic writing. This is expansive, flowing music, the expected style of a second subject. The idiom is not dissimilar to the equivalent section in the first movement but it is now stylistically more integrated into the movement. The theme has a B minor outline which is weakened firstly by the chromaticism and then, more subtly from 133, by a bass pedal D. The theme falls into two parts, of eight and ten bars. The second part is marked at 123 by più espress. The first eight bars are made up of rearranged added fifths with a tonic G to C# outline

Figure 87 overleaf.

Figure 87a).





The second part of the theme. 123 - 132, comprises a similar arrangement with a C/F# outline, a fourth from the first part. D# in bar 125 lies outside this pattern. E and D#/A are the centres of symmetry of the two parts of the theme. The significance of the second part of the theme obviously lies in its symmetry on the D#/A axis.

A repeat of the second subject begins at bar 133 and this is not marked out as being the start of a new section, as it is not. However, the implication is of something new as there is tritonal activity in the bass and a slowing of the tempo. The tritonal writing begins in bar 127 with the descending bass chromaticism which is repeated down an augmented fourth from 129. This is followed by a clear tritonal progression from Bb to E to Bb in 130(3) - 132. last pitch leads to D, a major third away, in 133. This repeat of the second subject is thematically exactly as before but in all other respects it is different. Perhaps most significant is the fact that a firm tonal bass is added. The 'cello pedal D lasts for the eight bars of the first part. This causes a dominant duality with the implied B minor of the theme. The accompanying lines are still chromatic but instead of the smooth hymn - like quality, the lines are now spiky and The descending chromaticism from 127 and onwards is staccato. repeated from 145 as before. The Bb/E bassline is also used again, at 148(3) - 152(1), but this time Bb leads to G which is followed by D.

The ensuing development demonstrates a very fluid management of tonality. The next Figure shows this.

Figure 88 overleaf.

Figure 88. Development.



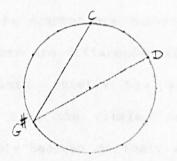


Figure 88e)

All pitches are used except E which may imply that this pitch is the centre of symmetry. It may also explain the use of the Bb/E bass line at the end of the second subject. However, despite the continually shifting nature of the music, three tonalities emerge as structural pillars, coming at the beginning, middle and end, D, G# and C. These pitches form an interlocking tritone and major third, as shown in Figure 88e). C and D are adjacent to G, the quartet's main tonality.

The development reworks first subject and transition material and the first subject from the first movement. The second subject from the finale is omitted, perhaps because it is used at the start of the recapitulation. Initially, the scond part of the first subject is developed and the first part is delayed until bar 167. This is followed by first movement material in new guises. The accompaniment figure from 181, alternating G# and C#, leads neatly into a restatement of the second part of the first subject at 193. The transition theme then leads into the first subject of the first movement, bars 205 - 224, which strengthens the links between the

transition and the second subject of the first movement. Also, the two first subjects of the quartet are played simultaneously in bars 215 - 220. Although there are differences in the structuring of the quartet's two developments, chiefly the way that first movement material is integrated into the finale, neither uses any second subject material, possibly because of their more expansive, thematic style.

The development begins with the second half of the first subject in bars 153 - 166 and it is always at the original pitch, starting on A. This reinforces D on the beat and this is the tonality. This fragment -

Figure 89.



is not symmetrical until the last playing in octaves at 164 - 166. In this passage, there are thematic fragments which are based on the first subject but which are intervallically different. These occur in bars 156 - 160 and employ E to G and D to F#.

Bars 167 - 170 take up the first part of the first subject and so the order of presentation has been reversed. As it is now a semitone higher than the original, a new centre of symmetry is produced. The pentatonic scale is now centred on Bb not A and this matches with the underlying tonality of these bars. Originally, A was the dominant of the underlying tonality. Another new element is the way that the first violin shadows the rhythm of the theme. This part alone is not pentatonic but the two upper lines together have pitches which comprise added fifths Ab to D with F as the centre of symmetry.

Four bars of first movement first subject follow, with entries on accompanie by C and G CG pedals. Although the idea was originally stated on G, this version is not based on symmetry as there are not enough pitches used. However, the version on C is symmetrical, being based on added fifths with a D/Ab outline. This links back to the upper parts in 167 - 170, mentioned in the paragraph above. In addition, D and G# are two of the main tonalities of this part of the movement.

Bars 175 - 178 repeat 167 - 170 up a semitone and with the parts reordered. This means that the tritonal content of the upper parts is now A to D# which is in the same tonal area as the original playing of the material doubled in this way, bar 51 et seq.. The A/D# outline also reinforces this as the underlying symmetry of the work.

The first movement's first subject is used again in bars 179 - 192, now raised a semitone from 171 - 174. This results in entries by violin 1 and viola on C# and G#, the former being the counterpole of the original playing at the beginning of the work. The theme on C# is stated complete with an A/D# outline of added fifths. The version on G# is based on the E/A# axis but it is not an authentic playing as extra pitches are added from 188. At this point, G# takes over as a tonality.

The A/D# axis is retained for the statement of the finale's first subject by the violins in 193 - 200. The full range of pitches here form added fifths with this same tritonal outline. This represents an axial shift within the same area from the C/F# which was used for structuring this material at the beginning of the development. This doubled version of the theme is repeated in 201 - 204 on new pitches and with a new continuation. As the repeat is transposed by a fourth from the previous passage, the writing is now based on the E/A# axis. In 205, this material is overlapped with transition material. The second subject from the first movement is then combined with the present movement's first subject in 206 - 209, possibly to imply the interrelationship of themes.

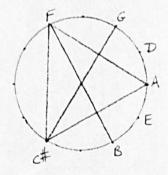
The combination of thematic material from the outer movements is continued in 213 - 220 with the alternation of transition material with a fragment of the first subject from the first movement. The

former is now played in consecutive thirds by the violins to form a symmetry of added fifths on A.

Figure 90a)



Figure 90b)



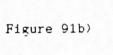
A B C# D E F G A
2 2 1 2 1 2 2

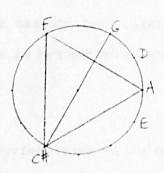
This is yet another reference to the underlying symmetry of the quartet on the A/D# axis. Clearly, these two lines also incorporate the pentatonic scale on G which was used for the first part of the first subject. The fragment of first movement material which follows is also stated by the two upper parts playing a third apart. Violin 1 begins on A and, if continued, this version would form symmetry. As the second violin version, which begins on F is not authentic, it probably would not prove to be based on symmetry in continuation. However, the pitches of both lines together form a symmetry on F C# A which was incorporated into the previous two bars.

Figure 91a)

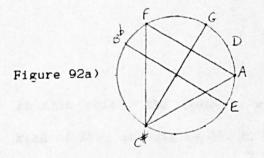


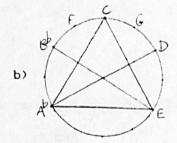
contd.





Bars 217 - 220 repeat these four bars with some reordering of the parts and with the last two bars transposed up a fourth from previously. Now, both fragments begin on Bb and D, a pairing significantly used in the transition (bars 95 - 98), for a statement of first movement material just prior to this, starting in bar 89 and for the thematic writing which starts in bar 99. These two pitches are then used for concurrent entries of the transition in 221 and this forms a direct link with the original transition, as mentioned above. The pairing implies that the two parts are to be considered together. 221 - 222 is based on A as the centre of symmetry. The repeat of the thematic fragment in 223 - 224, beginning on D and F, results in symmetry on C.



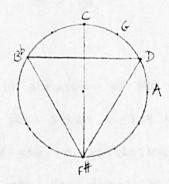


Although the arrangement of pitches on the circle of fifths in the two examples above is not the same in both cases. a triangular structure is common to both and this is subject to a progression of a fifth.

This transition material leads to an emphasised playing of the start of the first subject from bar 225. This is similar to the passage beginning at 167. Once again, the theme is doubled in sixths. The opening pitches of the top part are Ab, C and D, the three main tonalities of the development.

At bar 229, there begins a very strongly emphasised statement of the first movement's first subject on Bb and D. This is similar to the statement in 219 but now the dynamic marking is ff instead of mf. The symmetry implied in the two parts is as before.

Figure 93.

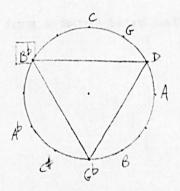


At this point, the thematic symmetry is supported harmonically by a kind of Bb9, comprising Bb, D, F# and C, in 229.

The pairing of Bb with D is retained for the beginning of the descending chromaticism which concludes the development. This passage was originally used at the end of the transition, from bar 107. The material is slightly rearranged, instrumentally, and the music is at a new pitch. The new notes ensure a symmetry on Bb which replaces its tonic counterpart. G. used in the original playing.

Figure 94.

Gb G Ab A Bb B C C# D

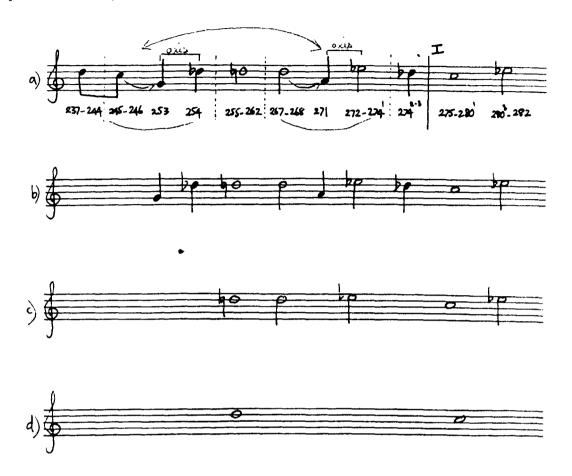


This shows that the Bb D F# structure of the previous pasage has been retained. The use of D here forms a link with the implied D as a tonality at the start of the recapitulation. This means that the second use of the Bb D F# structure leads to D at the beginning of the second subject which marks the start of the recapitulation. In the exposition, D as a tonality for this section was only achieved with the second playing of the theme.

The use of D for the start of the new section implies that it will lead to G for the first subject in due course. As originally, there is an almost imperceptible start to the second subject. Once again, it is the restatement, from 255, that is highlighted. This time, extracts from the first and second subjects of the first movement are added at the end of the section. The tonal organization is similar to the original as both comprise two dominant \rightarrow subdominant \rightarrow tonic axis progressions. However, the version in the exposition comprises two parts which are virtually the same whereas the version in the recapitulation alters the pitches in the second part, from 255. In addition, there is a return to the subdominant at the end. This would lead to G, via a plagal cadence, at the start of the first subject were the C in bars 275 - 280(1) retained but Eb is the final tonality and this would form a major third with G.

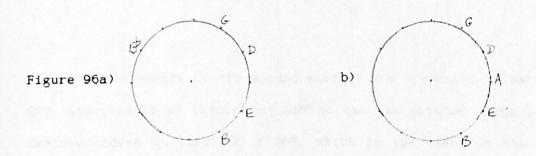
Figure 95 overleaf.

Figure 95. Recapitulation. Second Subject.



Bars 237 - 254 correspond to 115 - 132, now raised a minor third from the original. D is still the main tonality and, as before, it occupies a central position. Instead of repeating the fifth/tritone progression exactly as before, it is transposed from tonic to subdominant at 267 - 274(1). This may be to anticipate the C and Eb tonalities of first movement material at the end of the section. The addition of this material means that the tonal framework of the section is now progressive, D to C. (See Figures 85d) and 95d).] The addition of this extra pitch does not lessen the suggestion of G as the point of resolution; it merely extends the tonal progression to V

- IV - I. Despite this conventional framework, the tonalities used in this section are furthest away from the overall tonal plan of the quartet.



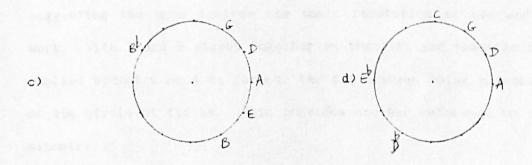


Figure 96a) shows the main tonal framework of the work as a whole, b) and c) show all the tonalities of the first and second subjects in the exposition and d) shows those of the second subject in the recapitulation. A comparison of Figure 96d) with Figures 93 and 94, which show the thematic makeup of the first movement material from bar 219 and of the descending chromaticism which ends the recapitulation. shows the similarity and points to the way that theme and tonality are

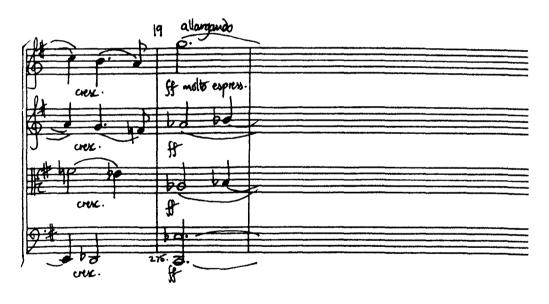
interlinked in this work. However, it is only the inclusion of C in this section that makes it appear to be less integrated, for tonic axis pitches of the second subject are still present, now as Db/G and the A/Eb axis, which is the implied basis of symmetry of the work, is also present.

Two statements of the second subject are presented in bars 237 - 274, essentially as before but now at the new pitches. One striking feature occurs in bars 255 - 262, which is the start of the second, emphasised playing of the theme. The original version was tonally centred on D. as is this. Thematically, the original was based on B. another dominant pitch. This time, the theme is based on the tonic E. suggesting the move towards the tonic resolution at the end of the work. With D and E placed together as tonality and thematic base, an implied symmetry on A is formed, the two pitches being adjacent to it on the circle of fifths. This provides another reference to the A/Eb symmetry.

A crescendo in bars 259 - 262 leads to a restatement of the second subject theme on D but not now reinforced by a pedal and with a more chromatic accompaniment than before, thus weakening the implied tonality of the idea. The real climax of the section is reserved for the reintroduced first and second subjects of the first movement at bars 275 - 282. The way that this material is approached is a little different to the way it was in the corresponding passage leading to

material but it is not established by a V - I cadence, as was D at the beginning of the development. Instead of using G in the bass as V. Db. its counterpole, is substituted at 274(2-3). Initially, this bass pitch is part of a G7 chord but this is quickly changed to Eb7 and then Db9 at the end of the bar. The Db bass note slides down chromatically to C at the start of 275 but the Db chord resolves conventionally onto Ab at this point. The C minor7 chord is only reached on the last beat of this bar.

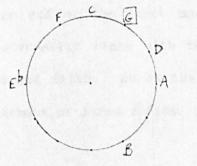
Figure 97.



The first movement material replaces the transition which is expected at this point. This serves to highlight the link between the themes of the finale's transition and of the second subject in the first movement, as the latter replaces the former. The combination of

the two main themes of the first movement in bars 275 - 278 is very skilfully brought about by rhythmic augmentation. This is the only occasion in the quartet that these two ideas are combined. Only the first two bars of the first subject are used. Like the original, it begins on G but two extra pitches are added at the end. B and C, which results in a new symmetrical emphasis. The original theme was based on the added fifths. Eb to A, which results in C, the subdominant of the underlying tonality. G, at the centre of symmetry. This may explain the use of C as a tonality for the restatement of the theme now. The two extra pitches result in no clear-cut tritonal outline. However, G lies at the centre of symmetry and this fact may reinforce the sense of moving towards a resolution onto that pitch at the end of the quartet.

Figure 98.

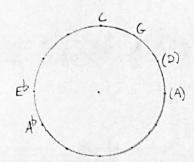


The points of repose in the theme are now G, 275 - 277(1). Eb. 278 - 279(3) and A. 280 - 281. These are possibly the three most important pitches in the work.

The second subject begins on Ab which links with the Ab - C combination of harmony, tonality and theme at the beginning of 275. With the first subject on G, tonality as C and Ab as the counterpole of D, I, IV and V are present at the start of this passage. The version of the second subject on Ab refers back to the movement's introduction where, although greater emphasis was given to the idea on E, there was a playing on G# from bar 18. The versions on G#/Ab have a link with the version on E as the tritonal outline at the apex (see bar 8) is D to G#. Were the version on Ab, begun in bar 275, to be played in full, it would have C to Gb at its apex and this would clearly link with the tonality.

Although there is a suggestion that the combination of G. C and Ab may lead to a resolution onto the first of these, there is a shift of tonality to Eb at the end of the first movement passage. This pitch has significant intervallic links with the three predecessors. major third, minor third and fifth. Eb is the counterpole of A and this continues the arrangement of added fifths.

Figure 99.



The bass Eb in bars 281 - 282 implies a resolution onto either Ab or Bb. In fact neither are used at the beginning of the finale's first subject as the minor third progression from C to Eb is continued to F#.

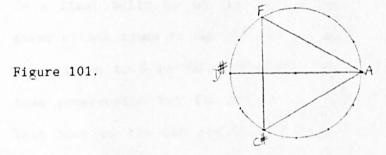
The justification for maintaining D as the main tonality in the second subject was as the dominant of G but there is total avoidance of this pitch in the first subject which follows in bars 283 - 348.

Figure 100. Recapitulation. First Subject.



Bridge chooses to delay the final resolution as long as possible, thereby heightening the effect. As G is only attained in the coda, the conventional V - I between the two main themes is avoided. The tonalities used in this section are even more distant from the overall tonal plan and that of the movement. This means that the recapitulation is a process of moving furthest from basic principles. F#, G# and Bb are the main tonalities. F#, as the counterpole of C, is the subdominant, G#, as the counterpole of D, is the dominant and Bb is a tonic. Figure 100c) shows a IV - V - I progression, now expressed as a series of whole tones, as F# - G# - Bb. This is followed by IV - V repeated, now as F# - B and then D. An important link to the first movement is formed with the D/Db tonalities in 317 - 322. This demonstrates another method of recall, other than thematic.

Although the first subject begins with the second part, now there is less clear definition between the two parts because as the section progresses the two ideas are used together. It begins with three statements of the second part which are presented on F#, G# and Bb. These thematic entry pitches match the tonalities in bars 283 - 304. The rising fourth at the start of the theme is now given new emphasis. Originally, the upper note matched the tonality, thus creating a duality between the first note as V and the tonality. Now it is the first note which matches the tonality. The idea is still pentatonic but the new centres of symmetry are C#. D# and F. As the writing was originally centred on A and F, the full range of centres of symmetry of this theme are based around the A/D# axis.



The second part of this second part has major third outlines as before. The four bars are subdivided, with each half based on a different tonal triangle. In the passage as a whole, all four triangular structures are used. From 305, this second part is combined with the first part of the first subject, which is no longer pentatonic in makeup but altered to emphasise its major third content. This way of combining the two parts of the idea is repeated in bars 309 - 312, both statements emphasising the C E G#/Ab structure. However, the symmetrical emphasis is shifted from C to E by the addition of extra pitches, F and G in the first instance and A and B in the second.

From bar 313, the first subject begins to disintegrate. An altered version of the end of the second part of the first subject is based on the Ab C E triangle, which was used in the passage mentioned above. Therefore, this structure has been used for the end of the first subject at 287, the beginning of the first subject at 305 and the disintegration of its second part from 313.

Bars 315 - 325 constitute a building up and a dying away followed by a final build up to the main climax of the first subject. The first climax comes in bar 317 on D. Two bars later, this shifts to Db but returns to D in 320. From this bar, Db forms part of a tritonal bass progression but its effect is weakened by its position on the last beat of the bar and by its pairing with G rather than with D. Chromatic scales in all parts lead, following a rest, to a unison F# marked fortissimo in 326, which marks the return of the F# tonality from the beginning of the section. It resolves conventionally onto B at 329. F# is little used as a tonality in the work and its use in this movement may be yet another reference back to the first movement, where it was used so effectively at the end of the transition. At that point, the conventional resolution was avoided.

The start of the first subject in its original, pentatonic form returns in bar 327. It is stated on E in unison, ff, for emphasis. By using just the start of the theme, the centre of symmetry, which would be F#, is now avoided. However, the full statement of this version on E is played by violin 2 in 331 - 334 while violin 1 plays the theme at original pitch. This results in two centres of symmetry, F# and A, both subdominant pitches. This combination of tonic tonality with subdominant centre of symmetry was established with the original playing of the material and is a fundamental principle which underlies the work. The dual playing is repeated in 335 - 338. The eight bars from 331 also contain the second subject, the first time that the two themes are put together in this way although earlier in

the finale the first and second subjects of the first movement were combined. The second subject is based on added fifths with a C/F# outline which reinforces the subdominant basis of the first subject and produces a centre of symmetry on A once more.

The closing bars of the above passage are the basis of the remainder of the section. From 338, a pedal is gradually introduced as a tonal base. Initially, this is placed in the viola, as the lowest sounding pitch, on the last quaver of the bar, but its position is gradually changed and its use increased. A thematic D is important in the 'cello from 337(3) but this is eventually replaced by the E in violin 1 from 345. D is thematically reinstated in the last two bars of the section, combined with a trill. The 'cello line in 343 - 347 chromatically leads down to G, which results in V and I being present in these closing bars of the first subject.

The coda begins in a more overtly tonal manner than anything in the work to date, emphasising that major has superseded the minor from the start of the quartet. This implies that asymmetry, as represented by tonality, triumphs over symmetry and that, on the surface, G is the true basis of the work and not A/Eb. The writing in the coda as a whole, however, demonstrates that the unambiguous use of tonality is a misleading gesture. The G major tonality in the first eighteen bars of the coda is strongly stated by the repeated cadences which employ uncomplicated, root position triads. However, there is a dramatic

shift fo E major in 367, which refers back to the use of that key in the introduction to the finale. This means that the movement is almost tonally cyclic. Also, the use of the major mode includes G# which is used, as Ab, as a counterpole approach to the traditional dominant, D, at the end of the work. Following the establishing of E, the music becomes tonally unsettled in 370(1) - 374(1). The tonalities here form a dominant - dominant - tonic pattern which is stated twice with a change of pitches the second time.

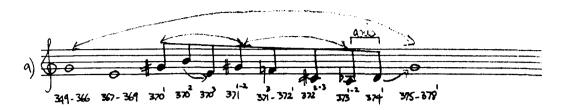
$$G# \rightarrow B \rightarrow E \rightarrow G# \rightarrow F \rightarrow C#$$

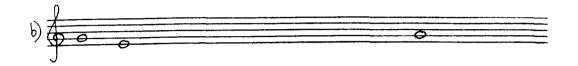
D D T D D T

This chromaticism contrasts with the traditional extended V - I. as Ab \rightarrow D \rightarrow G. which closes the quartet.

Figure 102 overleaf.

Figure 102. Coda.





Thematically, this final section is based on the first subject. The first part is used in bars 349 - 358, always at the same pitch, onto G on the beat. The original version, from bar 31, was onto D which means that the theme has progressed from a dominant basis to tonic. An extra note is added at the end now. The added B results in the theme now having a tritonal B/F outline of rearranged added fifths. Also, B is used briefly as a tonality towards the end of the section. The underlying harmony of the theme is alternating I and V but in 355 an E minor triad is introduced which may be said to anticipate the tonal E from 367. As G progresses tonally from minor to major in the course of the work, the E minor triads used from 355 - 366 progress to the major mode from 367 - 371(1).

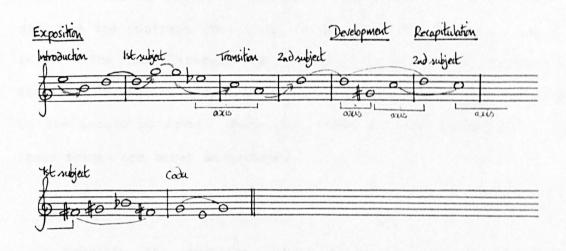
part of the first subject in a new triplet rhythm. The pitches are as they were in the original playing from bar 63 but now the theme is placed over a strongly tonal GD bass. Mostly conventional chords on C. G. D. A and E accompany this writing but there are also chords of added fifths made up of these pitches.

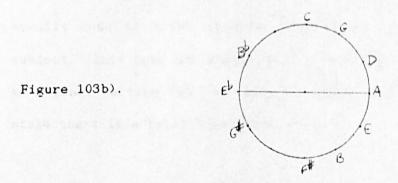
The passage in E major employs chords on E and C#, the latter being the G counterpole. G#/Ab is a pitch that links the two chords and also those of F minor and Ab major which follow. G#/Ab is therefore present throughout bars 367 - 373. It resolves up semitonally onto A in 374. The pitch has finally fully established itself by becoming the root of a chord in its own right in 373. This in turn is followed by its counterpole. D, as the dominant of G. Thus, the tritonal bass progression in 373 - 374 is foreshadowed by one of the pitches being used as a binding agent in the preceding bars. The work ends on a straightforward G major triad which lasts for just over three bars.

One can conclude that the finale uses a wider range of main tonalities than the two preceding movements but that they are still based around the A/Eb axis, as shown on the example below.

Figure 103 overleaf.

Figure 103a). Tonal Framework of Third Movement.





The pentatonic scale on which the first subject is based, G D A E B, is contained within this arrangement of tonalities.

The movement blends material from the first movement with its own themes. Whereas themes in the first two movements are put side by side for the contrast they form, in the finale there is a linking of ideas. The first instance of recall is found in the introduction. The first subject is based on a pentatonic scale and this harks back to the second movement, whose main theme is also pentatonic. Both these themes are based on symmetry. . .

Formally, the exposition is ambiguous and it is not immediately obvious where the first subject ends and the transition begins. There are constructional thematic similarities which define this on close examination of the score. The second subject is introduced in a manner designed to obscure. The development is more conventional; this is where first movement material is reintroduced. The reversal of themes in the recapitulation is quite conventional but this is usually done to bring about a clear tonic resolution in the first subject. This does not happen as G is withheld until the coda. It is this final section that provides the resolution but even at this late stage there is a brief tonal diversion.

My discussion of the G minor quartet has concentrated on tonal architecture, structurally important moments and on the way that the thematic ideas and certain chord structures are constructed in

relation to tonality. Although the musical language in the quartet represents a marked advance on its predecessor in its fluid chromaticism, Bridge has not abandoned the traditions upon which his style is based. Although diatonic keys are largely avoided in the course of a movement, each of the three movements ends with a conclusive cadence to achieve a resolution in a key. G minor. B minor and G major. There are many gestures in the course of the music that imply diatonicism, notably V - I bassline progressions, but if these are supported by the harmony they are short-lived, as a tonal base is never allowed to last long. The main tonalities of the work are established more by bass pedals than by conventional harmonic means. However, the tonal effect is often deliberately weakened by a variety of methods. Harmony and implied tonality are often at variance and bitonal effects are suggested by adding an upper pedal or by thematic writing that suggests a second tonality. Apart from final resolutions, most of the work's tonalities are less than absolute.

The phrase structure of themes and the textural layout, if a little complex at times, are both conventional. The formal framework is also firmly based on tradition, although the blurring of the beginnings and endings of sections is significant. A procedure already used by Bridge in the earlier works is the reintroduction of first movement material at the end of the work to superimpose a cyclic formal structure.

The harmony, like the tonality, straddles two premises. Much use is made of conventional triads, sevenths, ninths and augmented sixths.

but there are structures that defy conventional harmonic description. Such chords seem to rely on intervals that divide the octave equally. major and minor thirds and their inversions, tritones and perfect fourths and fifths, the last two by their placement on the circle of In addition, such intervals are occasionally used in harmonic fifths. notably the tritone at important progression. arrangement of pitches into axis areas broadens the concept of dominant and subdominant with tonic so that, for instance, D. B. Ab and F can equally be dominants of G. There is no apparent reason as to why a conventional chord or progression is used or not as no obvious pattern emerges. One thing that is apparent is that unconventional chords are much used at moments of climax and this gives them great prominence. However, symmetry is frequently altered by the addition of an extra or extra pitch or pitches.

The fluid chromaticism that characterises the style of the G minor quartet, implies a language that is based on the concept of the equality of the twelve semitones. A number of semitonal relationships have emerged in the course of the present study, mainly to be found in the tonal relationships and harmonic progressions. The important ones involve the main tonalities of the work, G/G#, D/Db, B/Bb and E/Eb. Other semitonal alteration exists but it is less prominent. The first of these represents the tonic and its semitonal alteration. This is less obvious in the work than the other three, perhaps because G is subject to minor/major alteration in the quartet. Also, there is much ambiguity in the way G is presented as the tonic. However, Ab is used

as a lesser feature in the first movement but in the finale, G# appears to be almost replacing G in the first part of the development and in the recapitulation of the first subject. G# even reappears in the coda which may highlight E's progression from minor to major. G# becomes Ab in the closing bars of the quartet and this leads to D as V of G. This means that the resolution is achieved enharmonically and by pairing Ab with D as part of the dominant rather than as part of the tonic.

D and Db are used in close relation to G as V and as an extension of I. Db being the G counterpole. In the finale, however, Db is virtually omitted.

B/Bb and E/Eb represent third relationships to the main tonic, G. The former represents the minor to major progression of the work. Also, B and Bb are main tonalities of the quartet. Tonally, there is no definitive resolution of these two pitches. Bb appears to be being gradually replaced following the second subject in the first movement. It is virtually omitted from the second movement, where B is the main tonality. However, in the finale, Bb is reintroduced as a tonality and its demise is perhaps only brought about by the major conclusion.

E and Eb are only marginally less important than the other relationships mentioned above. The main tonalities of the quartet

stem from the G minor/G major triads. G. Bb/B and D: E/Eb lies outside this. However, Eb is important for the wav that it links G and B within the circle of fifths and also for its counterpole relation to A. discussed below. E has a counterpole relation to Bb. Eb has an important tonal role in the first movement but E is even more important in the finale. Two brief references to Eb occur in this movement, in the exposition of the first subject and in the recapitulation of the second subject.

Apart from G#, all the other pitches mentioned in these semitonal relationships form major or minor thirds, perfect or diminished fifths to G. These intervals permeate the music at every level and in every aspect. As mentioned, these intervals all divide the octave symmetrically and it is such symmetrical relationships that seem to form the underpinning of the quartet. This is borne out by the main tonalities of the work, G. B. Bb. D and E. By placing these pitches onto tonic and dominant axes, radical intervallic relationships are brought into a conventional tonal framework. However, as mentioned, on the circle of fifths these pitches have a further implicit symmetry, that of the A/Eb axis, around which the pitches lie. The G-B-G progression of the three movements reinforces this and, as I hope to have shown, there are many references to the A/Eb symmetry, sometimes with GB, in the course of the work.

The first instance of A/Eb with G occurs with the initial statement of the first subject. The theme, which begins on G and which initially has a G tonality, comprises rearranged added firths with an Eb to A outline. [This recurrs in the finale.] This is an instance of a diatonic theme which is made symmetrical by chromatic alteration. The themes in the following two movements mostly have pentatony as the basis of symmetry. A/Eb features in many other ways in the first movement, as mentioned in the text.

The second movement moves away from the A/Eb symmetry. The main thematic material has a symmetry on B which may represent a subdominant relationship to the A/Eb axis and may be part of of the many plagal progressions in the quartet which are derived from the placing together of tonic and subdominant, as G and A/Eb. in the work's main theme. The A/Eb symmetry is present in the small-scale relationships again in this movement.

The tonal significance of the introduction to the finale has already been discussed. The finale is much concerned with symmetry on A in much the same way that the first movement used Eb for its climaxes, sequences and secondary relationships.

An examination of the tonal skeletons of each movement shows that F# is the centre of symmetry of the first movement. The second

movement is asymmetrical, although B ties in to the G B A/Eb symmetry of the quartet, and A/Eb is the centre of symmetry of the finale.

Figure 104. Main Tonalities of the Three Movements.

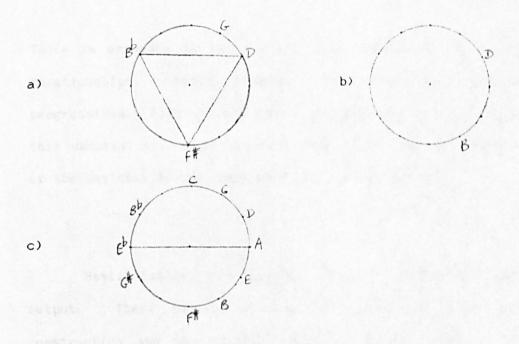
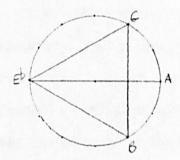


Figure 104a) shows the framework of the first movement, b) that of the second and c) that of the finale.

Although the work clearly employs both conventional and radical methods. I feel that there is an important body of evidence to support the premise that the quartet is based on the A/Eb tritone in relation to G B, to form an interlocking triangle and axis.

Figure 105.



There is evidence in the overall tonal framework, in internal tonal relationships, thematic makeup and harmonic structures and progressions. Although all these are important pitches, at no time is this underlying symmetry overtly stated but that is entirely typical of the way that Bridge concealed his working methods.

Stylistically, the quartet in part belongs to Bridge's early output. There is the flowing lyricism, the traditional formal construction and the skilfull textural manipulation of the medium. There is a conventional tonal base underlying the music too and the ultimate resolution is tonal. However, the chromaticism is more intense than previously, a fact that indicates the way that Bridge was pushing the boundaries of tonal conventions. In addition, Bridge weakens the sense of tonality by putting together strands that have different tonal biases. The concept of bitonality was not new for Bridge; both the "Novelletten" of 1904 and the "Idvlls" of 1906 explore this territory. However, in the present work two or three tonalities may be implied at any one time and there is more use made

of this ambiguity. At times, the lyrical manner is replaced by a terser, motivic mode. This again point to the emerging ideas on tonality and his preoccupation with linking tonal relationships to thematic and harmonic structures. In respect of all of this, the work is clearly at a turning point in Bridge's output. More then any other of the quartets, it looks forward and backward and yet Bridge creates great unity out of this diversity.