THESIS

This is to certify that the

thesis entitled

A STUDY OF
TWENTIETH CENTURY DUETS FOR
VIOLIN AND VIOLONCELLO

presented by

Daniel Mellado, Jr.

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Music

Major professor

Date 2-1-79

O-7639

A STUDY OF 20TH-CENTURY DUETS FOR VIOLIN AND VIOLONCELLO

By

Daniel Mellado, Jr.

A THESIS

SUPPLEMENTARY TO THREE VIOLONCELLO RECITALS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Music

1979

ABSTRACT

A STUDY OF 20TH-CENTURY DUETS FOR VIOLIN AND VIOLONCELLO

By

Daniel Mellado, Jr.

During the twentieth century a sizable number of composers have explored the possibilities that are inherent in the unaccompanied duet for violin and violoncello. Although earlier composers did occasionally write duets, hardly anything of significance appeared until composers started using the new musical techniques of the twentieth century.

Previous studies of duets for violin and 'cello have consisted simply of listings of all known duets. The present study, in contrast, deals solely with twentieth century duets, and concentrates on works that have enjoyed a measure of success. These duets (by Reinhold Glière, Maurice Ravel, Zoltan Kodaly, Heitor Villa-Lobos, Ernest Toch, Bohuslav Martinu, Arthur Honegger, and George Rochberg) are analyzed in some detail, while other twentieth-century duets are listed in appendices according to various catagories. A brief history of the medium and a list of recorded duets are also included.

ACKNOWLEDGMENTS

I would like to thank the many fine teachers at Michigan State University for the help and guidance that they have given me. I am particularly indebted to Professors Louis A. Potter, Jr. and Theodore Johnson, who have been especially generous with their valuable time.

Before starting on this project it seemed necessary to perform, or at least play through, the more important duets. In this extremely important task my violinist wife has been most patient and helpful.

I would also like to acknowledge the publishers who have allowed me to reproduce portions of published works. These include International Music Company, Durand et Cie. (Theodore Presser, U.S. representative), Universal Edition (European American Music Distributors Corporation, U.S. representative), Editions Max Eschig (Associated Music Publishers, U.S. representative), Editions Salabert, and Theodore Presser Company.

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INTRODUCTION

During the twentieth century composers have exploited all the many traditional as well as the newer sounds that can be produced by stringed instruments. This thorough use of instrumental technique, along with a renewed interest in chamber music has led to the writing of significant works for violin and violoncello duet without accompaniment. This medium was formerly the province of the string player who wrote duets primarily for pedagogical and recreational purposes. In this century, however, the situation has undergone a complete change. Most of the duets written in the twentieth century have been written by musicians who are primarily composers. It can be safely said that the majority of these duets are intended for serious public performance.

One indication of interest in the medium is the scheduling of duet recitals by young artists. In 1970 there were three active professional duos listed in the Annual Artists Directory.[1] These were the Domb Duo (Carol Domb, violin and Daniel Domb, 'cello), the Schoenfeld Duo (Alice Schoenfeld, violin and Eleonore Schoenfeld,

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[1] Annual Artists Directory. (New York: The Music Journal, Inc., 1970), p. 86.

'cello), and the Deane-Drinkall Duo (Derry Deane, violin and Roger Drinkall, 'cello). The legendary names of Jascha Heifetz and Gregor Piatigorsky might well be added to this list, for they have recorded duets by Martinu, Gliere, Toch, and Kodaly.

The number of commercial recordings available is also an indication of recent interest in duets.[2] There are eight twentieth century duets that have been recorded more than once or have been recorded by artists of the highest ranking. Although it may not be a totally reliable method, examing available recordings does provide some basis for determining which works are apt to become part of the established repertoire. The duets which are examined in Chapters II and III of this thesis were selected by this process.

In recent years serious efforts have been made at compiling a bibliography of duets for violin and violoncello. The first such effort was made by Alexander Feinland, who was formerly a professor at the National Conservatory of Music and Declamation in Panama. His efforts led to the publication of The Combination of Violin and Violoncello Without Accompaniment. This book listed a total of 610 items. Feinland's mission was later taken up by Oscar R.

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[2] See Appendix D for a listing of recorded duets.

[3] Alexander Feinland, The Combination of Violin and Violoncello Without Accompaniment (Barstow, Maryland: Calvert Independent, 1947).

Lotti, who extended the listing to 987 items.[4] Lotti tried to grade all available works according to difficulty, using the numbers I, II, and III, with III being the most difficult. Lotti's book is an extremely useful reference tool, but no work of this kind can ever be considered complete.[5] Lotti's listing includes original works, transcriptions, currently published works, out-of-print works, and duets which are in manuscript. It does try to differentiate between printed works and works in manuscript, but it does not differentiate between original works and transcriptions. This lack of differentiation can become a serious problem, especially when one is dealing with works that were written before 1900.

Transcriptions are not nearly so prevalent in this century as they were in the past. The idiomatic tendencies of instruments are generally recognized as integral elements of a composition. This maxim applies to the composition of duos as well as to other forms of music. Yet, those duets which have had a measure of success have not relied on novel instrumental techniques. The eight works that have been chosen for discussion in chapters two and

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[4] Oscar R. Lotti, Violin and Violoncello in Duo Without Accompaniment (Vol. XXV of Detroit Studies in Music Bibliography; Detroit: Information Coordinators, Inc., 1972).

[5] Since the publication of Lotti's book at least eighteen new duos have appeared in print. These are listed along with other currently available 20th-century duos in Appendix A.

and three of this thesis use the violin and violoncello in a fairly conventional manner.

The primary problem with which composers have had to deal when writing duets is not concerned with the use of unusual sounds, or even with achieving a full and sonorous texture. Since only a limited variation in texture can be produced by two melody instruments, the central problem is one of adjusting and balancing the formal structure so that the musical substance will not seem to be stereotyped and repetitive. This thesis is concerned with the various approaches that have been used to solve that problem.

CHAPTER I

DUETS BEFORE 1900

The history of the unaccompanied duet for violin and 'cello can be traced with some certainty to the year 1688. In that year, Guissepe Torelli published his twelve Concertino per Camera a Violino e Violoncelle in Bologna, Italy.[1] In many ways these pieces are quite similar to the many sonatas and suites that were written during the Baroque era. The following outline of Torelli's twelve concerti suggests that the primary material was derived from contemporary dances.

1	G Major	Six sections (5,10,4,31,5, and 17 measures)
2	D Minor	Introdutione, Ballo, Corrente
3	F Major	Introdutione, Allemande, Corrente
4	E Minor	Introdutione, Ballo, Gigha
5	Bb Major	Introdutione, Allemanda, Gavotta
6	A Minor	Introdutione, Allemanda, Correte
7	B Minor	Introdutione, Allemanda, Gigha
8	A Major	Introdutione, Ballo, Corrente
9	C Minor	Introdutione, Allemanda, Gigha
10	C Major	Introdutione, Allemande, Gigha
11	D Major	Introdutione, Ballo, Corrente
12	G Minor	Introdutione, Aria, Aria di Gigha[2]

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[1] The full title reads: "Concertino per Camera a/ Violino, e Violoncello,/Dedicato/ ALL'ALTEZZA SERENISS./ DI FRANCESCO II/ DUCA di Modena, Reggio &tc./ da'/ Guissepe Torelli Veronese/ musico sonatore nella perin/ signe Collegiata di S. Petronio/ di Bologna, et Accademico/ Filarmonico./ Con lic. de sup."

[2] Claudio Sartori, Bibliografia della musica stromentale italiana (Florence: Leo S. Olschki, 1952), p. 545

There are two unusual aspects about these works. The first is the use of the word concertino. Since this term was not in common usage at the time, it tells us nothing about the music, except that perhaps Torelli intended some sort of opposition between the high and the low instruments and that these are small-scale works. Of more importance is the absence of a continuo part. Printed parts to these concerti, Torelli's opus 4, exist in three libraries: the Liceo Musicale in Bologna, the British Museum in London, and the Bibliotheque du Conservatoire in Paris. None of these libraries has a separate figured bass part, nor, in the parts, is there any indication that Torelli wanted a figured bass.[3]

The appearance of these unaccompanied duets at a time when the continuo was an integral part of instrumental music would, at first glance, appear to be a phenomenal occurrence. When the accomplishments of Torelli's contemporaries are taken into consideration, however, the duos do not seem too extraordinary.

The Bolognese cultivated music as assiduously as any group of people ever did. As the home of the oldest university in Italy, the famous Accademia Filarmonica, and one of the largest churches in Italy (the Basilica of San Petronio), Bologna basked in an atmosphere which was

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[3] A full discussion of these works appears in Richard Norton, The Chamber Music of Guiseppe Torelli (unpublished Ph. D. Dissertation, Evanston: Northwestern University, 1967) pp. 74-83.

critical, intellectual, and experimental. The Bolognese school of composers differed from their contemporaries in that they spent a greater percentage of their energies on instrumental music. The significant accomplishment of the Bolognese composers was the development of new forms that were suitable for the new instruments of the violin family. A listing of new instrumental forms which were developed by the Bolognese would include:

1 The concerto grosso and the solo violin concerto. Guiseppe Torelli (1658-1709) and Archangelo Corelli (1653-1713) were pioneers in these forms.
2 The sonatas for trumpet and strings. Maurizio Cazzatti (1620-1713), Giacomo Perti (1661-1756), and Guisseppe Jacchini (?-1727) contributed to this form.[4]
3 The trio sonata. Giovanni Bassini (1657-1716), Giovanni Battista Vitale (1644-1692) and Cazzati were associated with the development of this form.
4 The violoncello concerto. Jacchini's "Concerto... con Violoncello obligato," op. 4 (1701) is thought to be the first work of this type.
5 The solo violin sonata (with continuo). Pietro degli Antonii (1636-1720) was important in this field.[5]
6 The unaccompanied 'cello solo. Domenico Gabrielli's ricercare appeared in 1689.[6]

It seems necessary to cite the foregoing examples because it can be argued that the idea of an unaccompanied duet would have been foreign to musicians of this period.

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[4] Jean Berger, "Notes on Some 17th Century Compositions for Trumpet and Strings in Bologna," Musical Quarterly. XXXVII (1951), pp. 354-357.

[5] Henry Mishkin, "The Solo Violin Sonata of the Bologna School," Musical Quarterly. XXXIX (1953), pp. 92-112.

[6] Arnold Schering (ed.), Geschichte der Musik in Biespielen. (Leipzig: Breitkopf & Hartel, 1931), #228.

This point of view is taken by Francesco Vitielli, who states:

> Enough music was written in the last decade of the 17th century to warrant a discussion of a performance problem which, to my way of thinking will never be solved.
>
> We will find, in fact, an indication such as "sinfonie or concerti a violino e violoncello" without the existence of a part other than that indicated on the title.
>
> But even if we see a duet proper for these respective instruments which is to be performed by these alone, instead of one with a cembalo filling in the harmonies, does it not follow that since the other part does not exist, it is actually discretely integrated into the violoncello part?
>
> In a portion of his beautiful book Geschichte des Instrumentalkonzerts Schering has touched upon the question. He proposes that the fact that the numerals do not exist in the violoncello indicates that it was not meant to have the accompaniment of a cembalo.
>
> But I cannot avoid raising some objections.[7]

Vitielli goes on to discuss an anthology of Bolognese duos some of which have numerals in the 'cello part and some of

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[7] Francesco Vitielli, Arte e Vita Musicale a Bologna (Bologna: Nicola Zanichelli, 1927), I, p. 127. The original reads "siffante musiche a violino e violoncello sono piuttosto numerose negli ultime decenni del Seicento de esse importanolo discussione di un probleme de esecuzione che, per mio conto, e' tutt'ora insoluto. ℙNoi le troviamo infatti indicate come 'sinfonie o concerti a violino e violoncello' senza avere impresse altre parti all'infuori de quelle nel titolo segnate. ℙMa, si tratta di veri e propre a due per i rispettive strumenti e che da esse soli dovevano essere eseguiti, o non piuttosto deve sottintendersi che esse potevano trovare il completamento del I'armonie col clavicembalo che, pur non avendo una parte a se, doveva seguire, discretamente integrandola, la parte del violoncello? ℙLo Schering ha toccato in una nota del suo bel volumetto Geschichte des instrumentalkonzerts la questione. Egli propenda a credere che il fatto de nonesserce numeri nella parte del violoncello indichi chiaramente che non poteva aver luogo l'accompagnamento del clavicembalo. ℙMa io non posso esimermi da qualche obbiezione."

which do not, as an indication that the 'cello part was often shared by the 'cellist and the cembalist.

In answer to Vitielli's objections, it can be said that the concept of an unaccompanied duet was not entirely new. Sixteenth-century musicians in Germany and Italy often used the term bicinium when referring to two-voiced instrumental or vocal works with no accompaniment. One study of the instrumental bicinia was done by Alfred Einstein, who points out that the bicinia were most often intended for pedagogical purposes.[8] These earlier duets differed from the Bolognese duets in that they were written for unspecified instruments or, at times, for instruments and voices. The following list includes some of the more important Italian bicinia listed by Einstein:[9]

1 Agostion Licinio, de Duo Chromatici de cantare e sonare. Venice: 1545 and 1546 (two volumes).
2 Vincenzi Galilei, Canto de'contrappunti a due voce. Florence: Giorgio Marescotti, 1584.
3 Various authors, Primo libro della Musica de Gastolde e d'Altri. Milan: 1598.
4 Grammtio Metallo, Ricercare a due voce. 1595.
5 Giorgio Marescotti, Sinfonie, Scherzi, Ricercare. Florence: 1584.

There is no evidence to indicate that the bicinia had any direct influence on the Bolognese. Nor, for that matter, can it be said that the people of Torelli's time were interested in hearing music for two stringed

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[8] Alfred Einstein, "Vincenzio Galilei and the Instructive Duo," Music and Letters, XVIII, 4 (1937), pp. 369-371.

[9] Ibid., p. 363.

instruments alone. However, the noted historian Charles Burney did write when he visited Bologna some years later that:

> They speak much of the "Bravi Orbi" or excellent blind musicians, who were not in town when I was there; but all the masters admire them, in their way, very much, particularly Jominelli who always sends for them when in the same town to play for him. They travel about in summer to Rome, Naples and elsewhere; one plays the violin, the other the violoncello....[10]

A study of the musicians who were active in Bologna during the seventeenth century would undoubtedly show that the violin and the 'cello were favored instruments. 'Cellists, for example, who were employed at San Petronio were normally paid more than trombonists even though they both played essentially the same parts.[11] The same conclusion can be reached regarding the music that was published. The anthology that Vitielli mentions is very likely a work entitled Sonate per Camera a violino e violoncello di vari autori. This publication contains works by the following:

1	Giacomo Perti	6	Carlo Mazolini
2	Giuseppi Aldrovandini	7	Giuseppi Jacchini
3	Domenico Marcheselli	8	Felipi Carlo Beligi
4	Giuseppi Laurenti	9	Bartolemo Bernardi
5	Bartolemo Laurenti (two entries)	10	Antonio Grimandi
		11	Giuseppe Torelli

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[10] Charles Burney, An Eighteenth Century Tour of France and Italy (ed. by Percy Schoeles; London: Oxford University Press, 1959), p. 165.

[11] Anne Schoenleben, "Performance Practices at San Petronio in the Baroque," Acta Musicologica, XLI (1961), p. 49.

Although the two part-books that comprise the anthology do not give a publisher or place or date of publication, it is almost certain that they were printed in Bologna. The basis for this judgment is that they contain music by some of the most distinguished members of the Academia Filarmonica and because the music is surrounded by by sumptuous engravings by the Bolognese artist Carlo Antonio Buffognotti, who also decorated the plates for Torelli's opus 4.[12] It appears that the Bolognese musicians were not only interested in writing music for violin and violoncello, but that they were also interested in presenting it in an elegant and appealing format.

The Bolognese experiments turned out to be but a promising beginning. Sharp cuts were made in the budget of San Petronio in 1695, and the church orchestra was dissolved. Some of the musicians left town, and, although the orchestra was later reorganized on a smaller scale, the musical life of the city never fully recovered.

One has to look quite hard in order to find other examples of true duets from the Baroque era. Most of the works listed by Lotti are either transcriptions or violin solos with a bass line accompaniment for the 'cello. With the advent of the classical era, however, the situation changes completely. During the 18th and 19th centuries

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[12] Claudio Sartori, op. cit., p. 554.

duets of all types abounded. The most common type was, by far, the duet for two violins. Some of the names associated with this type of duet were Mazas (149 duets), Spohr (14 duets), Rode (9 duets), Stamitz (11 duets), and Viotti (56 duets).[12] The sheer number of violin duets by some composers suggests that their overall quality was probably not impressive. In spite of their shortcomings, they did serve a useful function in that they taught violinists how to play both leading and subservient roles.

While the number of duets for violin and violoncello from the same period is more limited, it can by no means be called meager. Only a small percentage of the total number is still available from publishers. Margaret Farish lists the following:[13]

Luigi Boccherini	Sonate
Luigi Borghi	Duet, op. 5, no. 3
Jean Batiste Breval	Duet no. 3 in D
Giacomo Cervetto	Duet, op. 5, no. 3
Friedrich Dotzeur	Duet, op. 4, no. 3
Federigo Fiorello	Duet in C
F. Josef Haydn	Duet in D
Anton Hoffmeister	Duet in D
Pietro Nardini	Duet no. 6 in Bb
Ignaz Pleyel	Three Duets, op. 30
Allesandro Rolla	Duets in Bb, C, & A
Karl Stamitz	Six Duos, op. 19

Most of these works have similar musical characteristics, the most prominent of which is the use of frequent

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[12] The numbers are from Wilhelm Altmann, Kammermusik Katalog (Leipzig: Friedrich Hofmeister Verlag, 1944), pp. 87-99.

[13] Margaret Farish, String Music in Print (New York: R.R. Bowker Company, 1965), pp. 22-24.

exchanges of the melody and accompaniment in order to distribute the musical ideas evenly between the two instruments. This formula is often combined with an overly rigid adherence to the conventional sonata form, an abundance of Alberti bass figures, and frequent passages in parallel thirds. These stylistic features lead to works which would not be of much interest to the average listener, but would seem to be appropriate for students or for strictly recreational purposes.

An exception to the general pattern is the Boccherini Sonata.[14] This work utilizes a different type of texture in each movement, as shown in the following outline.

1st Movement: Allegro Spiritoso. The melody is found entirely in the violin with motivic ideas interspersed in the 'cello part, which is definitely accompaniment.
2nd Movement: Vivace. Brief canonic passages alternate with sections of invertible counterpoint and passages designed to maximize sonority by arpeggios and double stops.
3rd Movement: Grave. Imitative passages turn into free counterpoint.
4th Movement: Allegro Assai. Orchestra-like unisons alternate with imitative passages.

It is quite likely that the D Major Duo by Haydn, which has attained some popularity, is a spurious work. It is not listed in any of the catalogs of Haydn's works, and the only reference to it is by Geoffrey Cuming, who notes

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[14] The editor, Paul Bazelaire, does not identify his source for this sonata. Moreover, Yves Gerard does not list a work for this combination in his Thematic, Bibliographical and Critical Catalogue of the works of Luigi Boccherini. He does note, however, that Boccherini frequently toured with the violinist Manfredi, and that engravings from the period portray such a combination.

that "A Duo in D Major for violin and cello, though often reprinted, is ignored by all writers on Haydn."[15] In this duet, the 'cello is constantly treated as the equal of the violin, and it is frequently called upon to move into the soprano range and take the melody. Although it may be attractive from a melodic point of view, the D-Major Duo is guilty of using the standard formula of exchanging parts every few measures. It may appeal to some performers because of the virtuosity that is required to carry it off, but its musical content does not seem to justify the effort.

According to Lotti, Mozart and Beethoven also contributed to the genus.[16] Mozart's contribution consists of three works which are in manuscript in the library of the Conservatorio Cherubini in Florence. The single duet by Beethoven is listed in Das Werk Beethovens.[17]

A special type of duet achieved some popularity in the 19th century. It is only necessary to look at the titles of this type of duet in order to get an idea of what they were like. The following duets, which were probably amongst the first to be performed before audiences, were all written by composers who had active concert careers. Three of the

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[15] Geoffrey Cuming, "Haydn: Where to begin," Music and Letters Vol. XXX, no 4 (October, 1949), p. 369

[16] Lotti, op. cit., pp. 31 and 16.

[17] Georg Knisky, Das Werk Beethovens (Munich: G. Henle Verlag, 1955), p. 466.

following composers were 'cellists, and the fourth was a violinist.

Friederich Dotzaur
  Duo Concertante on a theme of Auber's "Stumme von Portici"
  Duo Concertante on Rossini's "Wilhelm Tell"
  Duo sur Motive de Bellini's "Le Pirate"
Adrien Servais
  Three Grand Duos de Concert
  Two Duos sur Themes de Beethoven
Hippolite-Prosper Seligman
  Serenade de Rossini
Henri Vieuxtemps
  Grand Duo pour Violon et Celle sur des motifs de l'oper "Les Huguenots" de Meyerbeer

There is nothing inherently wrong with basing a composition on previously written material, but the foregoing titles do suggest that in the 19th century the duet was but an imitation of the larger works which were currently popular. The unaccompanied duet was not one of the main interests of composers.

The history of the duet for violin and violoncello before 1900 has not been too impressive. It is harder to write for a string quartet than for an orchestra, and harder yet to write for smaller string ensembles. It is not surprising, therefore, that the duo format has been so resoundingly unsuccessful. In his discussion of the problem that Franz Josef Haydn had to face when he first started to write string quartets, Sir Francis Tovey noted that:

> ...when Haydn began his work, his auditory imagination was fed on experiences fundamentally opposed to the whole hypothesis of future chamber music--the hypothesis that written notes completely define the

> composition. How could the string quartet develop in a world where necessary harmonic filling-out was always left to be extemporized, and where a single note might sound in three octaves at once?[18]

In the case of the duet, the question might be paraphrased: "How could the string duet develop in a world where harmonic filling-out was a necessity?" The answer is, of course, that it could not develop until composers discarded the musical rhetoric of the 18th and 19th centuries, and began to look for alternatives to the harmonic systems and formal methods of the past.

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[18] Donald Francis Tovey, "Haydn's Chamber Music," The Mainstream of Music and Other Essays (New York: Oxford University Press, 1949), p. 4.

CHAPTER II

NATIONALISTIC AND IMPRESSIONISTIC DUETS

The four compositions included in this chapter were written between the years 1909 and 1928. The Nationalistic and Impressionistic duos are being discussed in the same chapter because both schools can be described as reactions against German dominance in music, and because at times the two schools complemented each other by combining elements from the two styles. This tendency is evident in the Kodaly and the Villa-Lobos duets. The Glière and the Ravel duos are more representative of a single school.

Eight Duets, Opus 39 by Reinhold Glière

The eight short pieces which make up Glière's opus 39 were written in 1909 when Glière was 34 years old. Glière's interest in the medium was probably a result of his early violin study at the Moscow Conservatory under the celebrated teacher Johann Hrimalý. Although Glière's opus 39 is written in a 19th-century idiom, it is a significant work because Glière adopted a format that has not been explored by other composers of duets.

It has been said that in writing duets "the question

is not one of material, but of form."[1] Glière's approach to writing duets was somewhat similar to that used by Baroque composers in their suites of dances. This approach consisted of writing a longer series of short, highly unified movements rather than three or four lengthy movements. Actually, it can be said that Glière avoided the problem of writing duets in large-scale forms. But by avoiding the problem, he defined it that much more clearly. His opus 39 therefore serves as a useful point of departure.

Instead of writing all of the movements in one key as was the custom in the Baroque suite, Glière used a variety of keys. The following chart shows that Glière also varied the tempos, styles, and meters.

Prelude (34 measures)	G Minor	Andante	4/4
Gavotte (80 measures)	A Major	Allegretto	¢
Cradle song (51 measures)	G Major	Tranquillo	4/8
Canzonetta (43 measures)	F Major	Moderato	¢
Intermezzo (50 measures)	E Minor	Andantino	6/8
Impromptu (64 measures)	D Minor	Poco animato	3/4
Scherzo (106 measures)	Bb Major	Vivace	3/4
Etude (51 measures)	G Major	Allegro Molto	¢

In the majority of these short pieces Glière obtains a high degree of internal unity by basing the movement on a single musical idea. There are two exceptions to this pattern. They are the Gavotte and the Scherzo, both of which incorporate a contrasting subject for their middle section.

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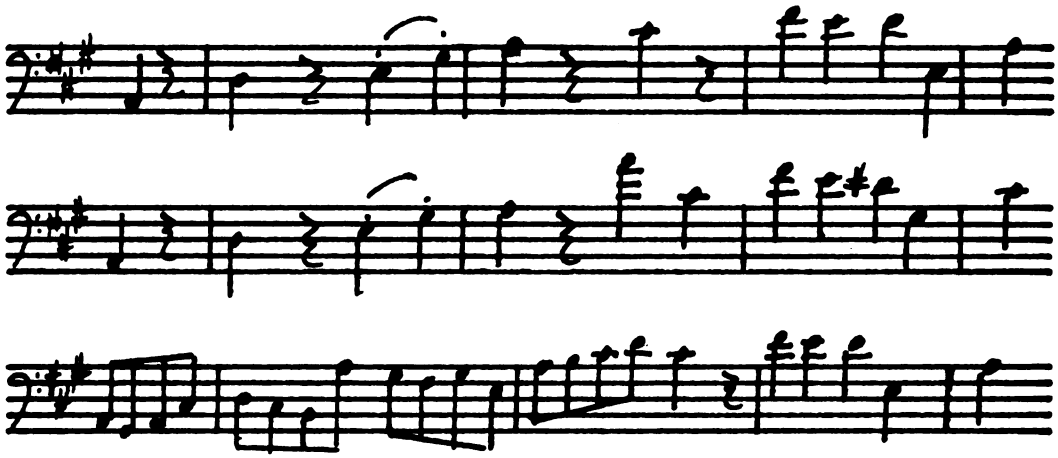
[1] Scott Goddard, "Ravel," Cobbett's Cyclopedic Survey of Chamber Music, Vol. II. London: Oxford University Press, 1929, p. 272.

In the Gavotte, which is deliberately made to sound quaint and old-fashioned, the contrasting middle section takes the form of a musette. Since the 18th-century musette was a dance with bagpipe-like drones, this section provides Gliere a rare opportunity to achieve fullness of sound by taking advantage of the open strings of both instruments. The primitive nature of the musette is emphasized by the melody, which spans only a fourth, and by its simple A B A form. Gliere does obtain a certain amount of variety by placing the B part in the minor mode and changing the tonality. The concept of variety is maintainted when the tonic returns with the addition of a countermelody in the 'cello part. This countermelody is similar to the melody of the musette in that it also spans only a fourth.

The main body of the Gavotte maintains an 18th-century quality by relying on traditional harmonies which consist of primary triads and secondary dominants plus an occasional submediant. An important difference between Gliere and 18th-century composers of duets can, however, be readily seen in this Gavotte. Earlier composers were eager to move the melody from one instrument to the other for the sake of treating the two instruments as equals. Gliere, on the other hand, starts with the melody in the violin part, and keeps it there through the first twelve measures. The 'cello never plays the melody in its original form, but that is not to say that it always plays an accompanying role. Variants of the melody are assigned to the 'cello in

a developmental section that serves as the middle portion of the Gavotte's ternary structure. The 'cello line is interesting even when portions of the original melody are repeated in the violin part. In such cases, changes of harmony and ornamentation provide variety for a 'cello part that could easily become merely perfunctory. Example 1 shows some of the changes that occur in the 'cello line.

Example 1 (measures 1ff, 7ff, and 56ff)



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Even these simple changes make the Gavotte more grateful for both listeners and performers than the exchange of parts that characterized so many earlier duets.

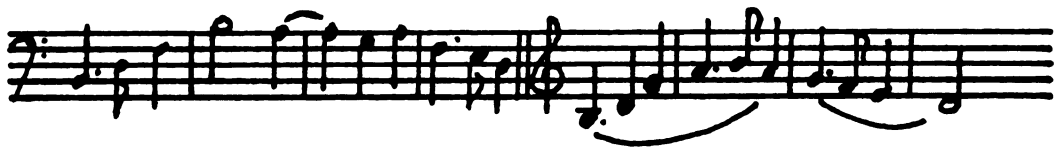
The Scherzo incorporates a contrasting trio section which is defined more by a change of style than by a change of thematic material. Of the following five styles employed in the Scherzo, only the last appears in the trio.

1 melody with punctuating chords
2 cross rhythms and syncopation
3 a single line doubled in octaves
4 pedal tones along with the melody
5 two independent smooth lines

The thematic material for the Scherzo consists of an ascending triadic figure in dotted rhythms followed by a hemiola rhythm. This material even dominates the trio section, where the dotted rhythm is transformed into a lyrical line as shown in Example 2.

Example 2

Scherzo Trio



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When compared with the Gavotte, the Scherzo is quite similar in regard to its harmonic language, but somewhat more simple from a formal point of view. In the Scherzo Glière does not even use the simple modification of repeating sections as he did in the Gavotte. The main device that Glière uses to provide variety is the constant presentation of the theme on various degrees of the scale. The following chart shows the progress of the theme through the Scherzo, which is in itself a ternary form.

I	theme in 'cello	measure 1
vi	theme in 'cello	measure 5
ii	fragment of theme in violin	measure 9
I	fragment of theme in violin	measure 11
ii	fragment of theme in violin	measure 12
I	theme in violin (repeat of the above)	measure 14
i	theme in 'cello	measure 29
vi	variant of theme in 'cello	measure 33
ii	theme in 'cello	measure 37

vii	variant of theme in 'cello (actually V of III)	measure 41
III	theme in 'cello	measure 45
I	theme in 'cello	measure 59
vi	theme in 'cello	measure 61
ii	fragment of theme in violin	measure 65
I	fragment of theme in violin	measure 67
v	fragment of theme in violin (modulation to Eb)	measure 68
V	theme in 'cello	measure 81
IV	theme in violin	measure 82

In spite of Glière's harmonic efforts, it is not so much the intrinsic variety as it is the vivace tempo that makes the Scherzo interesting. After all, in a piece that lasts about two and a half minutes, not much variety is really necessary.

The last movement, entitled Etude, provides another opportunity to study the way in which Glière uses a single motive throughout a movement. In this case there is no attempt to create or define a middle section. There is only a continuous development of a single subject from beginning to end. The Etude can be described as a perpetual motion which consists of a series of entries of the subject separated by episodic material. The entrances of the subject are arranged as follows.

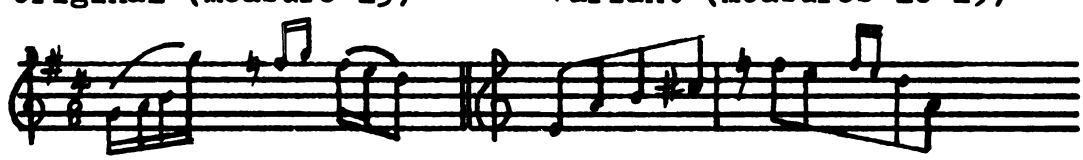
I	subject in violin	measure 1
I	subject in 'cello	measure 9
V	subject in violin	measure 17
i	subject in 'cello (fragment)	measure 20
VI	subject in violin	measure 22
bII	subject in both (fragment)	measure 26
V	subject in 'cello (fragment) (dominant pedal in violin)	measure 30
I	subject in 'cello (dominant pedal in violin)	measure 35
I	subject in 'cello (tonic pedal in violin)	measure 46

The secondary voice, which frequently takes the form of punctuating chords or movement in parallel thirds, is always varied so that in this movement there is never an exact repetition. Perhaps the method of achieving unity with variety that Glière used in the Etude would not work on a larger scale, but in this brief piece the result is quite satisfying.

The Cradle Song and the Intermezzo may be grouped together because, in each case, the instruments maintain their respective functions, either accompanying or carrying the melody, throughout the entire movement. The Cradle Song is definitely the simpler of the two movements. It incorporates a contrasting theme which is derived from a portion of the opening melody by augmentation, as shown in Example 3.

Example 3

Original (measure 13) Variant (measures 18-19)



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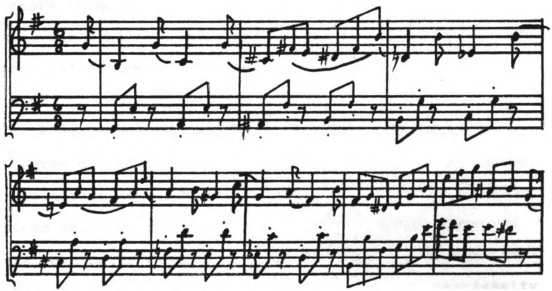
Throughout the Cradle Song the 'cello maintains a pattern of arpeggiated sixteenth notes. The unpretentious nature of the piece is evidenced by the menas through which Glière varies the reprise of the opening theme. The most notable change involves transposition of the violin

melody up one octave. This is only one of two movements (the other is the Canzonetta) in which, for the sake of variety, the melody is moved up an octave in the reprise.

In the Intermezzo Gliére shows that it is not necessary to move the melody around from one instrument to the the other in order to have a viable piece of music. In this movement Gliére again uses one theme as the basis for the entire movement. This theme consists of a two-measure melody that maintains a lyrical quality in spite of a considerable number of leaps. There are two things about the Intermezzo that stand out. These are 1) the way in which the harmonic rhythm is used to help define an A B A form and 2) the fusion of major and minor harmonic elements.

The rate of harmonic change can be readily observed in the first eight measures, (Example 4) where the chords change twice in every measure.

Example 4



In the first two measures the chords are simple enough--i, iv, V of V, and V. The dominant at the end of the second measure leads to a G-major chord and a restatement of the passage in the relative major. The rapid harmonic changes, when combined with the change to the relative major and the use of borrowed chords (subdominant minor in the third measure and minor dominant in the fifth measure) help create an active mood. In the second eight-measure phrase the harmonic activity is intensified by the addition of non-harmonic tones to the 'cello accompaniment. The contrasting middle section is created by the use of the same melodic material, but with a slower rate of harmonic change. Measures 18 through 21, for example, consist of the following: (in G Major)

Measure 18	2 chords	I & diminished 7th
Measure 19	1 chord	V
Measure 20	2 chords	IV & diminished 7th
Measure 21	1 chord	I

The chord changes are later spread even farther apart, so that by the time that the theme returns in the home key of e minor, it is preceded by three full measures of its dominant.

A considerable amount of repetition takes place in the course of this movement. Measures nine through sixteen are similar to measures one through eight, and the first fourteen measures return at measures 34ff, where they set up the movement's ending. In spite of all the repetition, the Intermezzo manages to maintain a feeling of spontaneity

because of its rapidly shifting harmonies.

The three remaining movements--the Prelude, the Canzonetta, and the Impromptu--do not have any distinctive features that set them apart from the rest of the opus. They do incorporate, however, the stylistic elements which are used in all the movements. In a sense, any one of these three movements might be regarded as the norm from which the other movements occasionally deviate in some respect. There are differences in meter and key (see chart on page 18) as well as distinctive differences in the type of melody that is used. In the Prelude the melody is motivic and chromatic, while in the Canzonetta and the Impromptu the melodies are thematic and have less chromaticism. Those stylistic elements which tend to appear in all movements are:

1 a clear distinction between the melody and its accompaniment
2 a tendency to distribute the melodic line between the two instruments
3 a high degree of internal unity, which is achieved by the use of one theme throughout a movement
4 frequent use of secondary dominants and chains of secondary dominants
5 frequent harmonic movement towards the mediant and submediant
6 a tendency to use deceptive cadences
7 a tendency to use a developmental middle section
8 the use of pedal tones, passing tones, and neighboring tones for chromatic effect
9 a tendency to use repetition freely, but with variation of details.

In the course of Glière's forty-two years of teaching composition, first at the Conservatory of Kiev and later at the Moscow Conservatory, he must have influenced many students. At least one of these, Heinrich Litinsky,

wrote a duet for violin and 'cello.[2] Other Russian composers who contributed to the medium include Nickoli Lopatnikof, Nikolas Karyinski, Boris Koutzen, Alexander Tcherepnin, and Alexander Znosko-Borowsky.

Sonate pour Violon et Violoncelle by Maurice Ravel

The Sonate pour Violon et Violoncelle bears the inscription "A la memoire de Claude Debussy." Ravel began writing this duet in 1920, two years after Debussy's death, and completed it in 1922. The premier performance was given by 'cellist Maurice Marechal and violinist Helène Jourden-Morhange, who has provided some insight into Ravel's thoughts on this work. She notes that Ravel was deliberately changing his style. In works written before the duo, Ravel had emphasized harmony, but henceforth, he resolved to concentrate on melody.[3]

Ravel's duo is on a totally different level from Gliére's. To begin with, Ravel's is a large-scale work in the traditional four movement sonata form. But even more important is the wealth of originality that is contained within the tightly knit formal structure. This internal order is not just confined to the individual movements; it is an order which links all the movements together into a unified whole. The first movement itself presents, within

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[2] Heinrich Litinsky, Sonata for Violin and 'Cello (Moscow: State Music Publishers, 1933).

[3] Helene Jourden-Morhange, Ravel et Nous (Geneva: Ed. de "Milieu du Monde," 1945), pp. 180-188.

a short span of time, the elements which permeate the entire sonata.

The sonata begins with an arpeggiated accompanying figure that incorporates both a major and a minor third.

Example 5 (measures 1-5)

This practice of justaposing two forms of a chord plays an important role throughout the duo. On the third statement of the split-third arpeggio the 'cello enters with a Dorian melody built on the tonic, which is A. The violin subsequently takes up the melody on the subdominant. Both the chromatic relation that is present in the split-third arpeggio and the interval of the fourth, which is the pitch distance between the two statements of the melody, are important, because these two intervals keep recurring throughout the sonata.

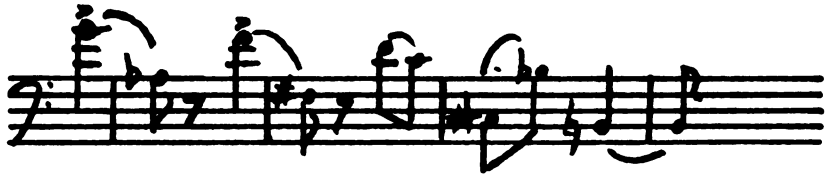
An extension of the opening melody is then taken up by the 'cello (measure 30), but by this time the accompanying figure has been changed to a seventh chord on G with alterations occurring on both the root and the third. The use of a seventh chord and the extension of the melody to the interval of a seventh (see Example 6) are significant because the seventh, in both its major and minor forms,

also plays an important role in this composition.

Example 6 (measures 30-32)

When the violin takes up the extension of the melody ten measures later, it does so an augmented fourth higher than the 'cello. The tritone is yet another important interval in this sonata. After a brief canon of three measures (measures 39-41) at the octave, the cello plays, in harmonics a melodic figure based on the major second, which is, of course, the inversion of the minor seventh. Any doubt about the importance of the seventh is removed by the next few measures, which have the 'cello playing a descending pattern of accented major sevenths (example 7) while the violin plays a Phrygian scale.

Example 7 (measures 47-50)

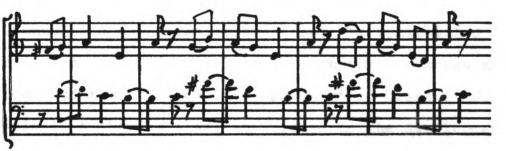


Before the first theme-group ends, extensive alterations of the opening theme are used to bring the dynamic level down to a piano. The alterations (measures 61-61) create

1) a major-minor seventh chord, 2) a French sixth, 3) a major-major seventh, 4) a major-minor seventh, and 5) an augmented chord.

The second subject (measures 69ff) begins on the the subdominant instead of the dominant. This deviation from the standard sonata form serves, of course, to emphasize the interval of the fourth. The thematic material consists of scale-like passages in both instruments. These are played in syncopated rhythms, and are based on the Dorian mode. After nine measures, however, an F# is added (again, the altered third) thus forming a Mixolydian mode. At that point the two parts assume a more disjunct character, which creates a pentatonic effect in the violin part, while the 'cello part occasionally outlines an augmented fourth as shown in example 8.

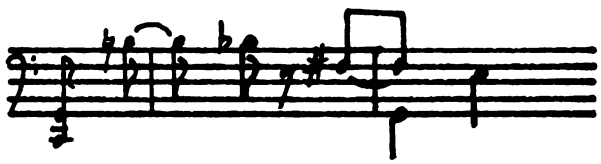
Example 8 (measures 82-87)



The pentatonic violin line is then set against a 'cello figure which is made up of three fourths arranged E, A, G, and D (measures 93ff). The second subject is

brought to a close by a return of the split-third arpeggio and a renewed emphasis on the interval of the seventh. In this case, sevenths appear as suspensions with the major seventh resolving to a minor seventh and the minor seventh to a major sixth, as shown in Example 9.

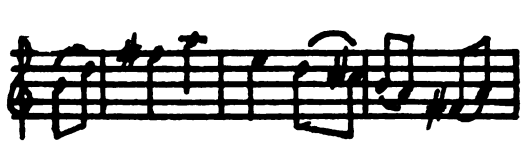
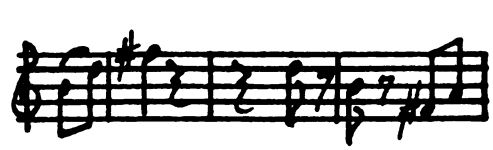
Example 9 (measures 107-108)



The resulting melodic pattern of a descending half-step followed by a descending whole-step is used more extensively at the very end of the recapitulation.

Although the beginning of the development is not too well defined, it can be identified by an increase in dynamic intensity that leads to the marking en animant, and by the appearance of a new theme derived from the split-third figure. The derivation includes the rhythmic changes and the four additional notes that are shown in Example 10. (Example 10 A shows the way it appears in the development; 10 B deletes the extra notes.)

Example 10

A  B 

The new version of the split-third theme is then moved through the following keys:

C	in violin part	measure 109
B	in violin part (repeated)	measure 112
C#	in 'cello part	measure 120
F#	in violin part (repeated)	measure 127
A	in violin part	measure 133
C	in violin part	measure 135

These six appearances of the theme form the first section of the development. The original split-third theme appears throughout the first section of the development with minor modifications. The modifications take the form of an added seventh, the use of harmonics to expand the chord spacing, and extension of the concept of chromatic alteration by means of alterations on all three notes of the chord.

The second part of the development uses the syncopated figure from the second theme along with the pentatonic idea that appeared near the end of the exposition. The syncopation is then combined with another variation of the split-third accompaniment. Just before the end of the development a three-note quartal motive consisting of A#, D#, and G# appears. This motive is repeated several times in progressively slower time values, and is used, along with the split-third theme, to lead to the beginning of the recapitulation.

The recapitulation differs from the exposition in a number of significant ways. In spite of the various changes that are effected, the beginning of the recapitulation and the two subject areas are clearly defined. The following

list itemizes the more important changes that are incorporated in the recapitulation.

1. A pentatonic arpeggio is used in place of the split-third theme to accompany the opening theme.
2. A minor-minor seventh chord is arpeggiated to accompany the violin's statement of the first theme.
3. The second portion of the first-theme melody is abbreviated.
4. The alternating half-step/whole-step melody which appeared at the end of the exposition appears before the second subject.
5. The split-third arpeggio is used to accompany the second subject.

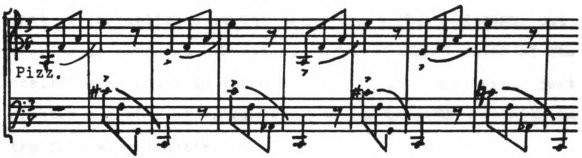
In addition, some change of instrumental color is obtained by the greater use of harmonics and the use of pizzicato chords in the 'cello.

The first movement contains a considerable number of elements which are not normally considered traditional. These elements include modes, pentatonic fragments, dissonant melodic leaps, quartal sonorities, and split-third chords. Despite this diversity of material and the variety of ways in which the material is used, the first movement might best be described as succinct.

The second movement, marked Très vif, has the character of a scherzo, but incorporates the developmental procedures of a sonata form. Many of the structurally important dissonant intervals which appeared in the first movement also appear here, but in an intensified form. By combining these dissonances with mixed meters, bitonality, a rapid tempo, and instrumental effects, Ravel produces a movement which is both unusual and exciting.

The second movement opens with a four-measure ostinato which, like the opening figure of the first movement, uses both a major and a minor third. After sixteen measures of this, arpeggiated pizzicatos are used to produce variations of the ostinato figure, as shown in the following example.

Example 9 (measures 17-25)

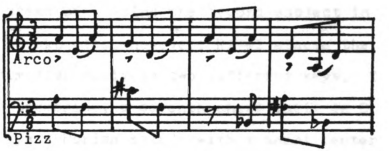


Ravel created the variations by placing the notes of the ostinato on accented down beats, while the second and third beats of each measure extend the series of thirds first to the seventh and ninth, and later to the eleventh and thirteenth. Eventually, all the tones of this tertian series except for the last are altered chromatically. The following chart shows the tertian series across the top and the order in which the alterations take place.

	F	A	C	E	G	(B)	(D)
1			C#				
2		Ab					
3					G#		
4	F#						
5							Bb
6				Eb			
7		A#					

The next section, beginning in measure 49, contains the main theme of the exposition. This is a quartal melody played by the violin. The melody itself (A,G,A,D) is placed on the first and third beats of each measure, while the second beat provides another note of the quartal series, E. Another characteristic of the same section is the use of mixed meter. The violin part is notated in the 3/8 meter that was established at the beginning of the movement, but the 'cello takes up 2/8 meter, with two eighth notes of the 'cello being equal to three of the violin. The 'cello part creates a number of tritones and major sevenths as shown in the following example.

Example 12 (measures 49-52)



The same material is repeated after eight measures, but a fourth higher and with added fifths and sixths in the violin part, which give it a more traditional sonority. The first subject ends with sixteen measures of imitation based on a motive which uses the rhythmic pattern of the quartal melody, but in a tertian setting. (Example 13)

Example 13 (measures 65-67)

The unusual material used in the first theme-group might be enough to disorient some listeners. In order to prevent any confusion, Ravel provides thirteen full measures of the pitch "E" in pizzicato, in solid notes, in harmonics, and in different octaves. These sixteen measures establish beyond any doubt the fact that Ravel has moved away from the tonic and has now reached the dominant, E.

Instead of placing the second subject in the dominant as would be expected, however, Ravel places the second subject simultaneously in two different keys. The 'cello plays, in harmonics, a seventh chord built on D while the violin plays a Dorian melody with a tonal center of Eb. The effect of having two roots spaced a half-step apart is thereby created. The dual nature of the second subject is emphasized by the use of 2/8 meter in the 'cello part and 3/8 in the violin.

An eight-measure transition consisting of a stream of polychords which move around the circle of fifths leads to the development, which begins in measure 152. An unusual aspect of this transition is the way in which the roots are arranged in a bitonal fashion, as shown in the

following diagram.

Violin:	B	E	A	D	G
'Cello:	C	F	Bb	Eb	Ab

Both instruments finish the transition in unisons, with the pitches C, F, and F#.

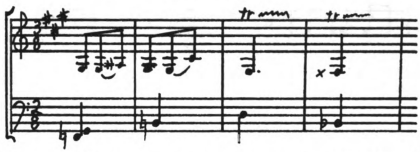
The development divides itself into five sections, each of which is based on its own split-third ostinato figure. In the first of these sections the ostinato is in the 'cello part, and is built on C. Extremely long sustained notes are played by the violin over this ostinato. If all the pitches in this section were to be arranged in thirds, they would yield the tertian sonority C, E (Eb), G (G#), B, and D#. When examined in this context, the relationship of this section to the chromatically altered tertian series becomes evident. The vertical sonorities that are created by the two parts are dissonant and emphasize three major sevenths; C to B, E to D#, and G# to G.

In the second section of the development (measures 120-171), the ostinato, this time built on D, is given to the violin. This section is the same as the first section, but the tertian series consists of the pitches D, F (F#), A, C#, and G (G#).

The third section (measures 172-111) again places the split-third ostinato in the 'cello. The pitches used in the ostinato this time are G, B (both Bb and natural), and D. Some additional dissonance is provided by the addition of F, either natural or sharp, every time the G is

played. In this section of the development an extension of the motive that was used at the end of the first-theme group of the exposition is set against the ostinato as shown in the following example.

Example 14 (measures 180-183)



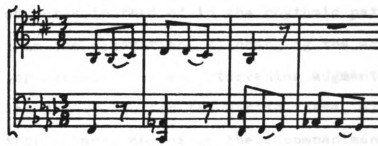
By setting this new idea in the key of G# minor, Ravel creates another bitonal effect. The interval between the roots is again the major seventh.

The fourth ostinato section (measures 196-211) is very similar to the third. The split-third figure appears in the violin, along with a minor seventh on the first note of each repetition of the ostinato figure. In this case, a minor second separates the fundamental note of the ostinato from the fundamental note of the melody. This fourth section of the development is brought to a close by eight measures of a ninth chord built on E.

In the last section of the development (measures 312-419) the ostinato is again used along with the motive that was used in the previous two sections. This time, however, an answer to the motive is played by the instrument

which plays the ostinato, as shown in example 15.

Example 15 (measures 316-319)



In this example the emphasis is again on the interval of the tritone. This material appears in different keys and is alternated with a stream of chords similar to that which preceded the development. In the final presentation of the stream of chords, both instruments play in the same key and lead to a single F# which is reiterated for twenty-two measures. The development began on C and ends on F#. The tritone becomes even more important when seen in this perspective.

From a structural viewpoint, the recapitulation of the second movement differs very little from the exposition. Even so, it contains so many minor changes that it sounds like a continuation of the development section, or even like new material. The following chart compares the arrangement of the principal elements.

Exposition	Recapitulation
Ostinato	Quartal theme
Quartal theme	Ostinato
Bi-metric Dorian theme	Bi-metric Dorian theme

The changes that Ravel makes in the recapitulation include: 1) placing the quartal theme in harmonics and in sustained notes instead of in the rhythmic pattern that was used in the exposition, 2) changing the accompaniment to a major seventh plus an intervening augmented fifth, 3) indicating ponticello for the Dorian theme, 4) adding major-minor seventh chords in the accompaniment to the Dorian theme (with occasional chromatic alteration of the third and the root), and 5) adding double stops to the ostinato figure.

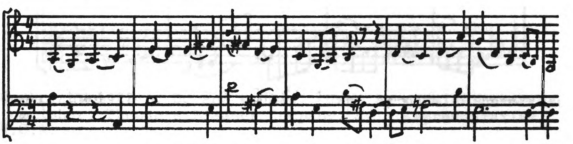
The second movement ends with a brief flash of parallel major chords played pizzicato (and glissando) followed by various ingredients of a split-third chord on "A." The contrast that it forms with the first movement is noteworthy, because both movements use the same form and similar musical materials. The first movement, however, was succinct, while the second movement might be better described as expansive.

The third movement consists of two-part counterpoint set in the framework of a ternary form. Ravel's counterpoint differs from traditional two-part counterpoint primarily in the treatment of dissonance. The same intervals that were used in the first two movements, the tritone and the seventh, are also used extensively in the third movement. Vertical dissonances are at first confined to weak beats, but as the movement progresses, the frequency of accented dissonances tends to increase up to the point

where the opening subject returns. An effect of a long slow crescendo followed by a feeling of repose is thereby created.

The first section of the ternary form starts with a Dorian melody stated unaccompanied by the 'cello. In the eighth measure the violin takes up the melody while the 'cello provides counterpoint which includes a number of minor sevenths, tritones, and some segments of the main melody. (example 16)

Example 16 (measures 8-13)

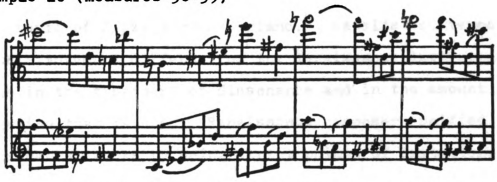


Derivations of the main melody are then used sequentially to intensify the dynamic level. These derivations include intervals which can be arranged in quartal patterns and tritones. The last four measures of the "A" section consist of an F seventh chord with chromatic alterations on the third and fifth.

The middle portion (measures 25-57) of the ternary form has two distinct sections, both of which emphasize dissonant intervals--the seventh and the second. In the

first of the two sections there is an A-major melody set against a constantly repeated Bb. This half-step relationship is an important characteristic of the first section. Twelve measures of counterpoint which continously stress the melodic interval of the seventh, as shown in example 18, make up the second section which starts in measure 24 and continues through measure 57.

Example 18 (measures 36-39)



The extremely dissonant second section is followed by a transition (measures 46-57) which leads to the "A" theme. The transition consists of an extended G seventh chord which spans seven measures. Every note of the seventh chord is eventually subjected to the type of chromatic alteration which is generated by the split-third concept.

The return of the "A" section is marked by the appearance of the Dorian melody along with a dominant pedal effect in the 'cello. Short segments of the main melody are worked into the 'cello pedal, however, in order to continue the contrapuntal style. The movement concludes with a

five-measure section of material derived from the "B" section and seven measures of perfect fourths and fifths.

Although pure contrapuntal writing might seem like a natural way to solve the problems of writing chamber music for stringed instruments, most composers have stayed away from the style or have used a blend of contrapuntal and homophonic techniques. In the third movement Ravel adopted a type of writing that can be traced back to the viol music of Elizabethan England.[4] Ravel's counterpoint in this movement differs from the Renaissance instrumental style in the treatment of dissonance and in the amount of imitation that is used. Renaissance composers unified their instrumental works by using strict points of imitation; Ravel unified his two-part counterpoint by repeated usage of the same dissonant intervals in both parts.

The limited tone colors and dynamic range of a string duet require that musical repetition be handled carefully and adroitly. Those forms which are characterized by a large number of repeated sections present special problems for composers of duets. Ravel's choice of a rondo form for

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[4] An interesting aside in the history of the duet for stringed instruments is the existence of a number of English polyphonic fantasies for two viols. These pieces were included in a collection of materials donated to the British Museum in 1939. The polyphonic duets are discussed by William Coates in "English Two-Part Viol Music, 1590-1640," Music and Letters XXXIII (1952), pp. 141-150. The two-part fantasies which Thomas Morley published in 1595 were not included in this group, as they were already well known. Morley also included six two-part instrumental works (which are suitable for viols) on pp. 55-68 of his Plaine and Easie Introduction to Practicall Musick.

the last movement of his duo therefore stands out as a determined effort to join two seemingly incompatible elements. The approach that Ravel uses does entail some modification of the traditional rondo form. This modification consists of using developmental procedures within two statements of the rondo theme and in all of the episodes.

The organization of the last movement is outlined in the following chart.

Rondo theme and development	measures 1-64
First episode and development	measures 65-93
Rondo theme	measures 94-101
Second episode and development	measures 102-161
Rondo theme	measures 162-169
Third episode and development	measures 170-244
Rondo theme and development	measures 225-274
Coda	measures 280-383

The dissonant intervals which unified the previous three movements are also used throughout the last movement. In the opening statement of the rondo theme, which is played unaccompanied by the 'cello, elements which appeared in previous movements can be singled out. These elements include the use of quartal intervals in the melody, the Dorian mode, and duple meter juxtaposed with triple. (In this case the two meters are used consecutively, not simultaneously, as in the second movement.) The rondo theme itself consists of four variants of a three-measure subject which first ascends a fourth from D to G and then descends from F to C. This initial statement is significant, because the rondo theme frequently cadences on a C-major chord and because the entire movement starts on the Dorian mode on D and ends on a final C-major chord.

Before the rondo theme is subjected to developmental procedures, it is repeated by the violin on the dominant (as shown in example 19) while the 'cello alternates tertian chords with chords made up of the four open strings.

Example 19 (measures 13-18)

The rondo theme is then broken into segments which are played by the violin while the 'cello plays counterpoint derived from the melody. Throughout this developmental section, which lasts thirty-two measures, the instruments constantly play in two different keys simultaneously. Since only small fragments are used, and these are frequently transposed, it is difficult to ascertain the relationship between the two parts. The accidentals do suggest, however, that the violin part is in D minor while the 'cello part is based on G#. The opening rondo section ends with a restatement of the last six measures of the rondo theme accompanied by pizzicato chords on the 'cello. Since each of the two instrumental parts seems to be constructed according to its own independent system of logic, the vertical sonorities are quite dissonant. These six measures of the rondo theme

(measures 57-63) when combined with the 'cello part create a number of chords and vertical sonorities which do not produce any functional harmony. Although the sonorities include such items as split thirds, split fifths, clusters, and seventh chords with augmented fifths, the over-all effect is not very harsh because the various sonorities appear in arpeggio form.

The first episode (measures 65-93) consists of a Dorian theme which moves at cadence points to an F#-minor chord. Although it stands out as a new theme, it does include rhythmic elements that appeared in the opening rondo theme, and, like the rondo theme, it tends to emphasize the interval of the fourth, as shown in example 20.

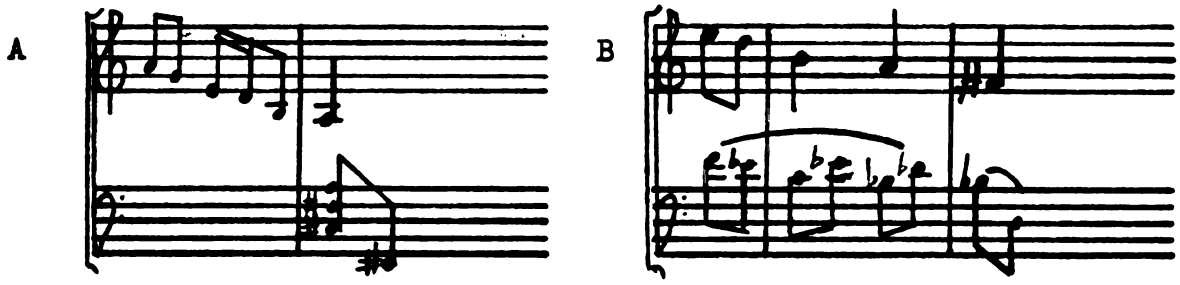
Example 20 (measures 63-67)

Ravel's use of the fourth as a melodic interval deserves some comment, because the way in which it is used serves to establish a relationship with the sonorities that are often used to accompany the rondo theme. The fourth frequently appears with an intervening note, such as F, D, C in the opening theme or C, B, G in the first episode (Example 20). The outer notes of these fragments form a fourth, while the inner note forms a third with one of the two outer

notes. The sonorities used to accompany the rondo theme consist of alternating sixths and fifths, which when inverted form thirds and fourths. This juxtaposition of tertian and quartal elements relates the two sections in a manner that is meaningful, and yet unobtrusive.

The remaining portion of the first episode consists of fragments of the theme played in a bitonal setting. These fragments alternate with a brief idea marked "un peu traine." The violin part in this instance is an augmented version of the last two beats of the theme, and the 'cello part is an ornamented version of the violin part. (Example 21)

Example 21 (A= original melody; B= variant)



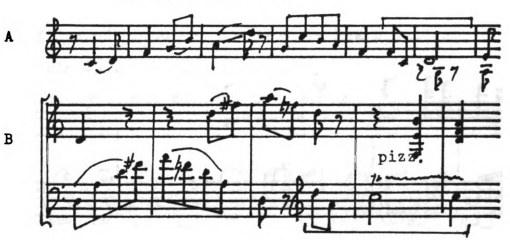
In Example 21-B the melody is doubled at the major seventh.

Although only eight measures of the rondo theme separate the first episode from the second, Ravel manages to present the rondo theme in a new context. The new context involves setting fragments of the first episode theme against the rondo theme. While the episodic theme is fragmented and altered considerably, all the significant

elements of the rondo theme, including the characteristic C-major final chord, are present.

A twelve-measure C-major melody (measures 101-112) forms the basis for the second episode. Quartal intervals again play an important role. The only thing that appears along with the melody is a long sustained trill on the tonic, C. In this case, however, Ravel carefully notes that the performer is to trill from the written note down a half-step, thus creating a minor second below the root and continuing the emphasis on the major seventh and its inversion. The developmental portion of this episode involves ornamentation of the melody. This is done by left-hand pizzicatos, trills, and arpeggiated ninth chords. One passage, however, explores a relationship that exists between three notes of the second episode and the split-third figure from the first movement. This relationship can be seen in example 22.

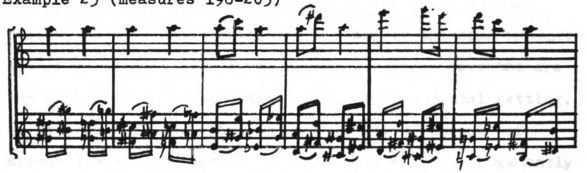
Example 22 (A= second episode melody; B= segment with split-third theme)



The ensuing return of the rondo theme (measures 161-168) is accompanied first of all by a continuation of the trills that appeared in the previous episode, and later by a series of descending sevenths which are played by the violin along with an open G. The open G helps establish the cadential pattern which uses an incomplete dominant ninth chord moving to a C-major chord.

The third episode begins (measure 169) with an abrupt movement to the key of F# minor. A prominent leap of a diminished fifth in the melody emphasizes the tritone relationship created by the abrupt key change. This exceptionally long melody (eighteen measures) appears first unaccompanied, then along with a fingered tremolo from G to F#. After eight measures of the fingered tremolo, the accompaniment changes to an arpeggiated A-major chord. A substantial portion of the melody is then presented in another simple setting. In this case the accompaniment consists of parallel descending major chords which are played as fingered tremolos, as shown in Example 23.

Example 23 (measures 198-203)



The third episode ends with an imitative passage which leads to a cadence on a chord made up of a C#-minor triad plus an augmented D triad. The relationship of the two roots is again the half-step.

The rondo section that follows is similar to the opening rondo section in that it involves some use of developmental procedures. As in the beginning of the fourth movement, the rondo theme is played first unaccompanied. In this case it is played by the violin, but it is somewhat abbreviated, and uses double stops to form sevenths with the melody. The only other difference between this section and the opening rondo section is the change of accompanying passages from arco to pizzicato and the lack of a cadence. The sequential passage, which in the opening version led to another full statement of the theme is, in this case, extended into a lengthy and well-developed coda.

The high degree of integration that characterizes this duo makes it possible for Ravel to unite elements from all four movements in the coda without giving the impression of a cyclical form. In the opening portion of the coda, however, melodic sevenths appear in exactly the same sequence as they appeared in the first movement. These sevenths are then combined with the rondo theme in a contrapuntal setting. The remainder of the coda consists of brief segments of various themes combined with others in a matrix of constantly shifting tonalities and instrumental registers. In an orchestral work a similar effect might be achieved by quick

movement of a motive from instrument to instrument. In this case, the instruments must remain the same, so the result is achieved by a constant change of the motives themselves. Some of the combinations that Ravel uses are:

1 the rondo theme combined with the sevenths from the first movement,
2 a portion of the theme from the third episode combined with the rondo theme,
3 the theme from the third episode used along with the sevenths from the first movement,
4 the rondo theme again combined with the sevenths from the first movement, but this time in a stretto effect.

In addition, the impression of a great amount of activity is created in the coda by the use of trills, double stops, repeated notes, and numerous vertical dissonances which result from the extremely independent part-writing. The duo ends with a dominant ninth to tonic cadence in the key of C major.

When Ravel chose to write in a texture containing only two lines, he eliminated much of the sensuousness that was so often associated with his music, and, like Haydn, he was "forced to be original." The originality of Ravel's duo lies not in his treatment of the sonata form, but rather in the unification of four very diverse movements with a vast variety of themes and motives by the use of a few simple dissonant intervals. In that respect, Ravel's handling of the duet form was ingenious.

Duo, opus 7 by Zoltan Kodaly

Zoltan Kodaly's accomplishments as educator, musicologist, and composer of orchestral and choral music have been widely recognized and acclaimed. Kodaly's equally significant accomplishments in the field of chamber music, however, are less well-known. The Duo is a part of a group of chamber music works for string instruments that Kodaly wrote between the years 1909 and 1920. This group includes the following:

First String Quartet, opus 2 (1909)
Sonata for 'Cello and Piano, opus 4 (1914)
Duo for Violin and 'Cello, opus 8 (1915)
Sonata for Solo 'Cello, opus 9 (1916)
Second String Quartet, opus 10 (1918)
Serenade for Two Violins and Viola, opus 12 (1920)

In his opus 7, opus 8, and opus 12, Kodaly showed himself to be a pioneer, for seldom had composers written works for these particular instrumentations. Although the Serenade had a worthy predecessor in Dvorak's Terzetto for Two Violins and Viola, and the Sonata for Solo 'Cello was almost surely inspired by Bach's Six Suites, it cannot be said that Kodaly was an any sense a mere imitator. As Bartok said about the 'cello sonata:

> No other composer has written music that is at all similar to this type of work. . . . Here Kodaly is expressing, with the simplest possible technical means, ideas that are entirely original. It is precisely the complexity of the problem that offered him the opportunity of creating an original and unusual style, with its surprising effects of vocal type; though quite apart from these effects the musical value of the work is brilliantly apparent.[5]

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[5] Bela Bartok, "Della Musica Moderna in Ungaria," Il Pianoforte, II, (July, 1921), pp. 196-197

The Duo for Violin and 'Cello also had its roots in Kodaly's often expressed admiration for Bach. This admiration, along with Kodaly's interest in two-voiced music, is expressed in the following excerpt from a 1921 article on Bartok.

> Since Bach we have lost the habit of being able to pursue two voices of equal importance; co-ordination has been replaced by subordination. We concentrate our attention upon notes sounded below one another and are immediately searching for triads if groups of notes are sounded simultaneously. But music, melodious in its essence, is not to be listened to in this way. If we succeed in surveying a larger area with our glance, that is to say, if we hear horizontally, the grating dissonances explode like cannon shots, but if they become separated into melodies, they unswervingly proceed towards their goal. When two melodies meet, a stress is created that doubles the energy of movement and lends additional emphasis to one melody or both.[6]

The foregoing passage reveals something about the approach Kodaly took in writing the duo. It is evident that he was more interested in melodic lines than in vertical sonorities.

From the first measure of the duo it is clear that Kodaly was not interested in writing a traditional piece of music. The work opens with the 'cello playing a minor seventh above the tonic "D" while the violin plays forte D-minor chords in triple stops. Although the 'cello melody (example 24 A) is based on the Dorian mode, the notes C and G receive considerable emphasis. These two notes occur on downbeats, and have relatively long note values. The

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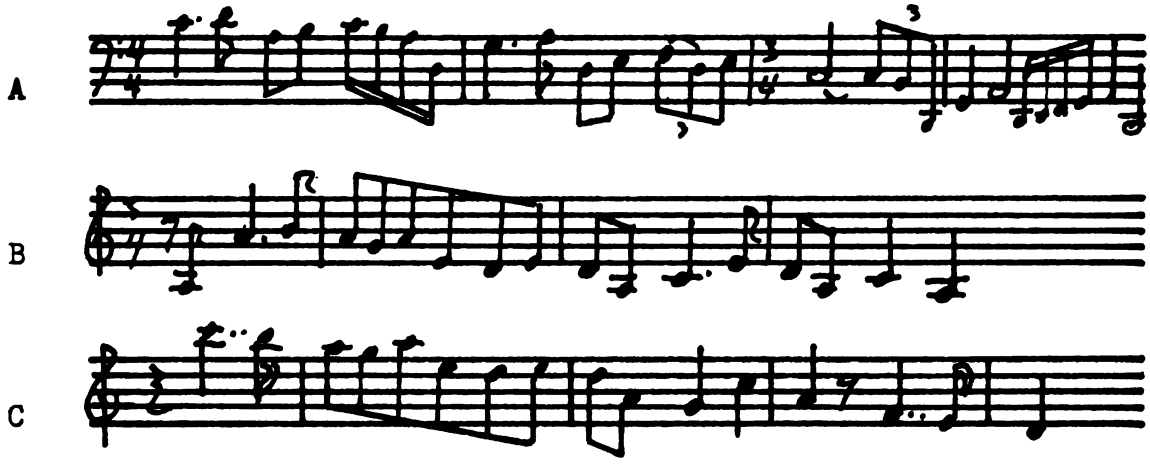
[6] Zoltan Kodaly, "Bela Bartok," La Revue Musical, V (1921), pp. 211-212.

conflict that is created by the prevailing D-minor tonality and the "C's" and "G's" is typical of the way Kodaly contrasts the two instruments throughout the duo.

The outstanding feature of the first movement is the manner in which Kodaly combines a rhapsodic, almost improvisational character with a sonata form. The rhapsodic character is largely the result of similarities among the three principal themes. Each starts on a high note, and gradually descends to the tonic an octave or more below the starting point, making it seem as if the theme is constantly reappearing in various guises.

Example 24 A= first theme (measures 1-4)
B= second theme (measures 20-23)
C= closing theme (measures 55-59)



The similarity of the melodic curves not only contributes to the rhapsodic character of the movement, it also aids in establishing a feeling of unity.

Like Stamitz, Hoffmeister, and other classical composers of duos, Kodaly tries to treat both instruments as equals by letting each have a turn at the melody. However, Kodaly does more than just exchange the parts. When the violin takes up the melody in measure 7, the notes C, G, and D occur on successive downbeats, replacing C, G, and C from the 'cello melody at the beginning. In these same measures (7-9) the harmony assumes an even more independent role, moving towards Eb by way of secondary dominants, only to resolve abruptly in D at measure ten. A brief imitative passage based on a pentatonic arpeggio then leads to the key of A minor and the second theme in measure 19. (Example 24 B)

The second theme consists of an A-minor melody accompanied by a pizzicato broken fifth. The A-minor melody is transposed in its entirety several times. This procedure, which was characterized by both Bartok and Kodaly as being typical of Hungarian folk music, moves the melody from A minor through G#, and then to B minor. As the melody is repeated, the pizzicato accompaniment is changed from a fifth to a tritone. This interval, also typical of Hungarian folk music, will play a significant role throughout the duo.

Since seventeen of the twenty-nine measures that comprise the second-theme group are devoted to B minor and only five to A minor, the dominant area is not effectively established. The B-minor tonality is especially strong in measures 40-47, where the theme is extended over a range of five octaves, from B3 to Great B.

The closing subject (measures 48-66) consists of a rhythmic motive which is passed from one instrument to another and a melody (Example 24 C) which appears along with and in between the many repetitions of the rhythmic motive. These repetitions of the rhythmic motive solidify the primary harmonies by reiterating the pitches A, E, and D. The melodic portion of the closing subject appears twice, in measures 52ff, and in measures 55ff. Since the first statement of this melody is built on D and the second on A, these also strengthen the primary harmonies. The closing subject therefore serves an important role in reinforcing the A-minor tonality that was only briefly established by measures 19-23 of the second subject.

Although there are very few differences among the three themes, the background figures provide considerable variety. The background figure for the first theme consists of punctuating chords; that of the second, continuous pizzicato eighth notes; and that of the third, a four-note rhythmic motive.

Because of the lengthy nature of the themes, the techniques that are used in the development (measures 67-146) are somewhat limited. For the most part, Kodaly relies on transposing entire melodies several times. Only the rhythmic background for the third theme is an exception--Kodaly separates it from its melody and uses it as a background for the first two themes. One interesting aspect of the development is the way in which the three themes are presented

in their original order. This makes measures 67-146 sound like a variation of the exposition rather than a true development of the three themes that appeared in the exposition.

A notable aspect of the development is the manner in which Kodaly uses the technique of parallelism to create full sonorities which contrast with the prevailingly thin texture. The most notable example uses a series of arpeggiated major-minor seventh chords with an added tritone. This figure, which starts in measure 114, lasts for eleven measures, while the second subject is played in augmentation by the violin. Another example occurs just before the recapitulation (measure 146). In the latter case, both instruments play independent versions of the third theme using parallel quartal and quintal sonorities.

In the recapitulation the first theme is played only once. At that point Kodaly manages to create a feeling of expansiveness with just two instruments by presenting the first subject in augmentation in the violin part while the 'cello plays a series of rapidly arpeggiated seventh chords over the four strings. Major-minor seventh arpeggios predominate in this series, but major-minor and minor-minor arpeggios also appear. The bass notes of these arpeggios start on F and proceed chromatically to the open C string of the 'cello.

The transition to the second theme is accomplished by the 'cello, which plays a short cadenza in the

parlando-rubato style characteristic of Hungarian folk music. The second theme appears (measures 176ff) as it did in the exposition, but with the violin and 'cello parts presented in invertible counterpoint--initially in the tonic key. Measures 204-234 are devoted to the closing theme, which in this case uses the notes D, A, and G to reinforce the tonal center. The first movement ends with a nine-measure coda which uses material derived from the closing theme and the opening measure of the movement.

In the second movement, also a sonata form, Kodaly continues the practice of using non-traditional scales. The opening subject is actually a double theme consisting of a rhapsodic A-minor melody and a four-note (B, E, A, and D) melody which is harmonically somewhat static. These melodies are first played separately, then, beginning in measure ten, they are played simultaneously, with the violin on the rhapsodic melody and the 'cello on the counter-melody. When the two parts of the opening subject are played together in measure ten, the original A-minor tonality changes to F major, but only for an instant. Between measures ten and nineteen, the violin melody is extended so that it descends from A_3 to small Bb, primarily by means of whole-tone segments. Neither the 'cello, which plays a series of non-functional triads and incomplete seventh chords, nor the violin establishes any tonal center until measure nineteen, where the dominant seventh of F appears. Even this chord does not resolve as expected, for Kodaly immediately

moves into a transitional passage that leads to the second subject in measure 29.

The second subject, a 22-measure segment in the key of C, establishes what might be described as a "night music" character. The somewhat static, nocturnal mood is created by the 'cello, which plays pedal notes and fingered tremolos. While the 'cello is producing these mysterious rumbling sounds the violin plays a parlando-rubato line which spans four octaves. Although the two instrumental parts seem to be unrelated, the vertical sonorities can usually be reduced to tertian combinations with added pedal tones on C and G. The unusual quality of this section is largely the result of a reversal of the traditional chord spacing which occurs when the 'cello plays double and triple stops in its low register while the violin plays in its upper register.

The development section which starts in measure 51 consists of three distinct parts. In the first section, there is a new four-measure melody made up of elements of the first and second themes. This melody is divided between the two instruments, with two measures in the violin and two in the 'cello. The new melody is subsequently transposed several times and accompanied by tremolos similar to those used in the "night music" section. The second part of the development (beginning in measure 69) calls for the 'cello to play a simplified version of the "night music" while the violin plays the opening countermelody. The 'cello re-creates the "night music" by playing arco in the top register while

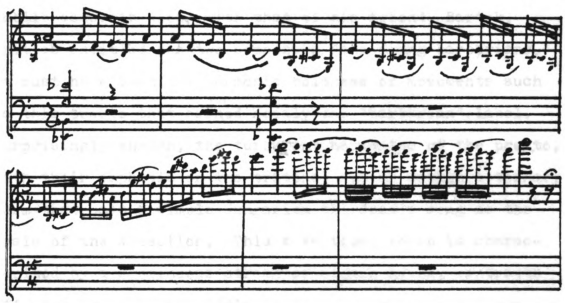
sounding the pedal tones with pizzicato open strings. In the third and final section, the two parts of the first subject are combined in stretto along with a pedal "D."

The recapitulation begins in measure 97 with the appearance of the first subject, but now it is in the key of Ab minor (actually Dorian), and the countermelody is changed into arpeggiated chords. "Night music" elements appear later, but these are also altered considerably by the use of harmonics and by the incorporation of elements from the opening countermelody. By so altering the thematic material in the recapitulation, Kodaly is able to prolong the rhapsodic mood which he established earlier with non-metrical, quasi-improvisational rhythms, frequent changes of tempo, and cadenza-like transitions. The rhapsodic feeling is further enhanced by the failure of the recapitulation to establish the home key with authority. Even the final tonic is delayed until the last measure, when the root of the A-minor chord is approached by a pentatonic arpeggio played beneath the third and fifth of the chord.

The final movement consists of a slow introduction and a presto. The thirty-eight measure introduction contains several cadenza-like passages for the violin. These are separated by pentatonic passages played in octaves by both instruments. Most of the introduction is in G minor but near the end, the tonality becomes quite vague. In this brief and simple introduction Kodaly manages to summarize the stylistic features that are utilized throughout the duo.

As mentioned before, these include the use of long rhapsodic melodies, pentatonic and modal scales, and simple transpositions of entire melodies. Example 25 illustrates another trait. In this excerpt the violin cadenza is constructed on the tonal center "A." Kodaly creates bitonality by placing an unresolved Eb seventh chord in the underlying 'cello part. Significantly, the root of this seventh chord lies a tritone below the tonal center of the violin cadenza.

Example 25 (measures 8-12)



One other Kodaly trademark appears in the cadenza that begins in measure nineteen. In this case Kodaly uses a chord with a tritone added above the root.

In the final cadenza (measures 25-38) Kodaly obscures the tonality by means of parallelism. The 'cello plays a series of descending major-minor seventh chords while the violin plays its cadenza, which includes a quotation from the opening of the second movement.

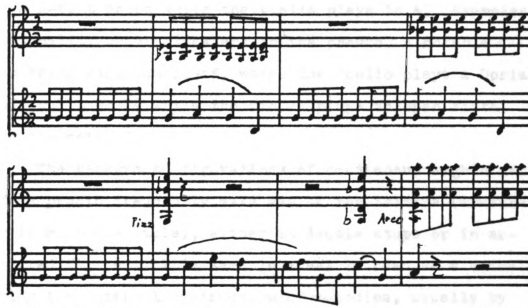
In the main part of the third movement Kodaly abandons the rhapsodic style of the first two movements and adopts a very straightforward, aggressive, and dissonant style of writing. When Kodaly's music was first played in public concerts along with that of his friend, Bartok, critics entitled the two composers "the young barbarians." It must have been the harmonic boldness of movements such as this presto that earned Kodaly the "barbarian" label. Surprisingly enough, the turbulent harmonies of the presto, with their emphasis on the tritone, appear within a ternary form that uses a simple Hungarian children's song as the basis of the A section. This A section, which is characterized by a continuous stream of eighth notes, contrasts effectively with the middle section, which uses a large number of sustained pedal tones.

Examples of modal and pentatonic writing appear in the presto, as do examples of quartal writing. Quartal elements are especially evident in the final ten measures, where a descending four-note line leads to the quartal chords G-D-C-F and D-G-A. The third movement does differ from the first two movements, however, in that it uses more dissonances, shorter melodies, and more developmental techniques.

These traits, along with frequent sudden key changes and occasional forays into bitonality, make the overall tonality somewhat ambiguous up until the very end, when the final octave "Ds" are sounded by both instruments.

The children's song which serves as the basis for the "A" section (Example 25) is exceedingly simple, but from the very beginning, Kodaly provides harmonic interest by the addition of an imitative figure in the violin part.

Example 25 (measures 1-8)



In example 25 the 'cello part (which emphasizes the interval of the fourth by stressing the notes G to D and C to G) suggests the key of G modulating to A. The violin part, on the other hand, suggests the submediant chord in

the second measure and quartal sonorities in measures six and seven. The resulting vagueness and the sudden shift to A minor in the ninth measure are typical of the way that strong tonal centers are avoided in this movement.

The reprise of the "A" section in measure 261 provides an example of how Kodaly creates rapid key changes by means of parallelism. In this case, both melody and accompaniment merely move upward by a step. Moments later, in measure 269, Kodaly creates bitonality by having the 'cello play a B-flat chord while the violin plays in A. Examples of bitonality occur elsewhere in the presto, a notable place being measures 164ff, where the 'cello plays a Dorian melody built on F# while the violin plays an open fifth, using the notes G and D.

The background figurations of continuous eighth notes in this presto frequently make use of the tritone (measure four is a good example), either in double stops or in arpeggiated figures. This same interval is used as a means of varying the intervalic structure of melodies, usually by changing a melodic perfect fourth to a tritone when the motive is repeated or transposed. An example of this procedure occurs in measures 24-25 (the original version) and measures 30-31 (tritone version). Augmented triads also play an important role in this presto, with several notable examples occurring between measures 311 and 314. Other dissonant intervals occur, but it is the tritone (along with the previously mentioned pedal tones) that accounts for most

of the dissonances that appear in the presto.

Throughout this duo Kodaly shows a predilection for combining dissimilar elements. It might be said that this is typical, for at the center of Kodaly's art is a certain striving for synthesis. His main accomplishment as a composer, the combining of Hungarian folk song elements with classical forms, is a prime example of this tendency. In this duo the tendency to synthesize serves Kodaly well, for the similarity of the two instruments offers but limited opportunity for contrasts in tone color. It has already been pointed out that in the first movement rhapsodic melodies are combined with sonata form. Other examples of Kodaly's synthesizing tendencies include 1) the use of a dissonant harmonic style along with a simple children's song in the last movement, 2) the use of bitonality, 3) the use of extreme registers in the "night music" section, and 4) the contrast of continuous eighth notes with static pedal tones in the last movement.

Kodaly is frequently regarded as a kind of musical folklorist. His opus 7, one of the most successful works in the duo format, certainly contains folk elements. But to say that the duo is successful because of its use of folk elements would be a mistake. Kodaly's duo is successful because it unites these folk elements within a well-balanced musical structure. By so doing, it remains faithful to the principles of chamber music; i.e., it relies primarily on form and content rather than on gesture and effect.

Deux Choros bis by Heitor Villa-Lobos

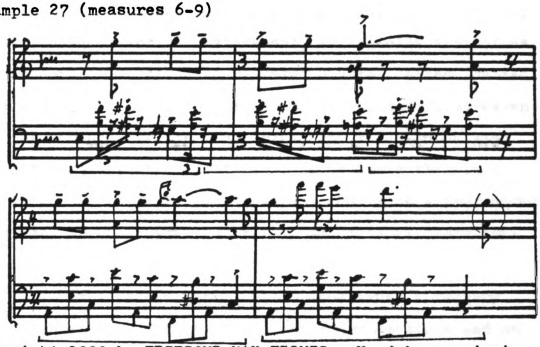
Heitor Villa-Lobos wrote the Deux Choros in 1928 while living in Paris. Although it shares the choros title with Villa-Lobos' well-known series of fourteen works, the duo was not conceived as a part of that series. The indication "bis" may indicate that the composer at one time considered starting a new series bearing the choros title, but if this is true, he did not follow up on the idea.

Originally the word choro referred to a type of Brazilian popular music in which one instrument improvised a melody while other instruments played syncopated rhythms within a framework of simple-duple meter. This soloistic style would seem to be somewhat incompatible with the traditional chamber music style which places importance on the distribution of musical material among the various instruments. In the case of the Deux Choros, however, only small portions of the work conform to the traditional choro style.

The first Choro, marked Modere, has a style which differs from the traditional choro style because it does not consistently use simple-duple meter. In fact, within the first eight measures alone, the meter changes four times, from 2/4 to 5/4, to 4/4, to 3/4, and back to 4/4. In actuality, the measures are not nearly so important to the rhythmic organization of the piece as are the accents and subdivisions of the beat. For the first seventeen measures, Villa-Lobos divides the 'cello's quarter note units into triplets, and these he carefully groups into units of two

and three notes by means of accents, rests, and articulation markings. These small units he then arranges into larger asymmetrical sets made up of multiples of two and three notes. Example 27, which is taken from measures six through nine, contains the "improvised" melody in the violin part. Underneath this melody the 'cello plays sets consisting of 3+2 notes in measures 6-7 and 2+2+2+2+3 notes in measures 8-9. (The individual sets are indicated by brackets in Example 27.)

Example 27 (measures 6-9)



The initial presentation of the violin melody is followed by extended versions in measures 10-14 and 15-21. The extensions consist primarily of passages made up of three note sequences. These sequences are usually based on the interval of the sixth, but in measures 18-19, fifths and

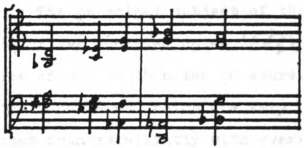
fourths also appear. Underneath these extended melodies the 'cello continues playing asymmetrical patterns (2+2+3) and 2+2+2+2+3) until measure 18, where its part changes to a series of parallel non-functional seventh chords with roots moving along the whole-tone scale. These chords, which are played pizzicato and glissando, create a guitar-like effect which may help explain why Villa-Lobos chose to call this work a Choro.

A pentatonic scale leads to the final unadorned statement of the melody which is played (in measures 25ff) by the 'cello. For this statement, Villa-Lobos simplifies the accompaniment by using repeated quartal chords instead of the disjunct patterns that prevailed in the first seventeen measures. For the final statement Villa-Lobos also simplifies the rhythmic patterns, by changing them into quarter-note triplets. The movement ends with a four-measure coda made up of quartal sonorities and a final chord constructed in seconds.

For the second Choro Villa-Lobos chose a ternary form with a lento for the first and third sections and an imitative animé for the middle section. The lento sections are characterized by a recurring chorale-like subject that appears three times in the first lento and twice in the reprise. (Example 28) Each of the chorale sections is different from the others, but the smooth lines, slow rhythms, and characteristic opening chord (an augmented-major seventh) makes each appearance of the chorale clearly discernible.

Although there are a few rhythmic changes, it is the harmonies that make each chorale section different from the others. In the first appearance, for example, the chorale starts with the augmented-major chord, then moves to a C-minor chord, and then to a first-inversion ninth chord on F. (Example 28)

Example 28 (measures 1-2)



In the second version (measure 5) the opening chord remains the same, while the second becomes an Eb ninth chord, and the third, a whole-tone sonority. In the third version (measure 10) the second and third chords are again changed, this time to a diminished-minor seventh chord on C in the case of the the second chord and an E-major chord for the third. In the reprise (measure 52) the opening chord is transposed up a fifth, and is followed by a G-minor chord and two ninth chords. The last appearance of the chorale (measure 60) contains only the augmented-major sonority. Although these chorales are non-tonal and constantly varied, they still serve as points around which the remaining portions of

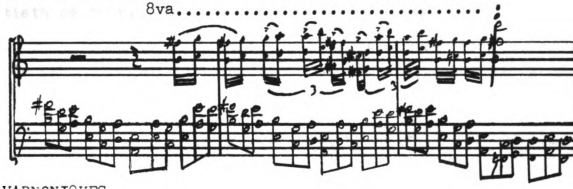
the lento sections revolve. The measures between the chorales contain quartal sonorities (in measure 7, for example) and a large number of minor-seventh intervals. In measures 7-9 these sevenths move in parallel motion (although they are interspersed with rests). The sevenths and quartal sonorities appear along with some very freely constructed runs and arpeggios.

The principal subject of the imitative section consists of two accented notes () followed by a descending series of sixteenth notes (measures 13ff). Unlike the rhythmic patterns, which are very regular, the series of pitches changes slightly with every entry. Although the effect is somewhat fugal, the relationships of the various entries do not conform to the traditional pattern of the fugue. The first series of entries is followed by a six-measure passage (measures 19-24) which might be described as being in the choro style. In this section the leading part, which consists of continuous sixteenth notes, is played by the 'cello. The violin accompaniment creates a guitar-like effect by means of repeated sixteenth-note pizzicato chords. These chords are arranged by accents and harmonic changes into six-note asymmetrical units.

The choro section is followed by three statements of the imitative subject. Although the concept of imitation is present in this section (measures 26ff), the entries are farther apart than in measures 13-18, and they are accompanied by syncopated pizzicatos. A second choro section, similar

to the first, and a codetta appear before the return of the lento section. The codetta is notable because of its extensive use of parallel fifths in combination with double-stop harmonics, fingered tremolos, and syncopated rhythms (Example 29).

Example 29 (measures 44-46)



The combination of all these elements creates a mysterious, Impressionistic feeling that anticipates the quiet mood of the closing lento section.

The four works that have been discussed in this chapter were written within a span of twenty years. At the beginning of that period hardly any thought was given to the possibilities that were inherent in the duo format. By the end of the twenty years, a large number of duos (see Appendices A-C) had been written, often with the new compositional techniques of the Impressionists and Neoclassicists. Composers managed to utilize a sizable number of these new techniques even in small-scale works such as the

Deux Choros, which has only 99 measures. But, by far, the most significant works to come out of the period were the duos by Ravel and Kodaly. In these two works the composers managed to combine the new resources with large-scale forms. Their success with the duo format is probably one reason for the large number of duos that have been written in the twentieth century.

CHAPTER III

NEOCLASSICAL AND TWELVE-TONE DUETS

The four composers that are represented in this chapter differ from those in Chapter II in that they do not place as much emphasis on folk elements and non-traditional scales. Although these composers (Ernst Toch, Bohuslav Martinu, Arthur Honegger, and George Rochberg) represent different countries and different styles, each has adopted an approach that stresses the development of musical ideas rather than the originality of those ideas. This does not mean that these composers wrote unattractive melodies; it merely means that they did not emphasize the colorful and exotic sounds that had been explored by other composers.

The four duos that are discussed in this chapter are not lengthy works. The Rochberg duo, with its single movement, and the Martinu duo, with its two movements are about as long as the one by Toch, which has three movements and, although Honegger's is the longest of the four, it does not approach the scale of the duos by Ravel and Kodaly.

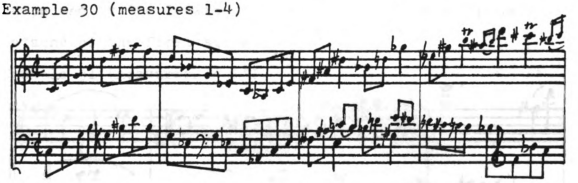
Divertimento, opus 37 no. 1 by Ernst Toch

Toch's interest in chamber music dates from his student days when he became engrossed with Mozart's "Ten Famous String Quartets." His interest in chamber music led

to the writing of nine string quartets, one string trio, one piano quintet, a serenade for three violins, and the two divertimenti which comprise his opus 37. These divertimenti, one for violin and viola and the other for violin and 'cello, were written for the members of the Vienna String Quartet, an ensemble that premiered several of Toch's string quartets.

The outline of a sonata form is clearly discernible in the first movement of the Divertimento, even though the tonality of the various sections is often obscured by Toch's extreme chromaticism. This chromaticism is the result of chromatic-mediant relationships and frequent use of the half-step as a melodic interval. Both of these elements are present in the opening of the first subject (Example 30), a thirteen-measure phrase that begins and ends in the key of C.

Example 30 (measures 1-4)



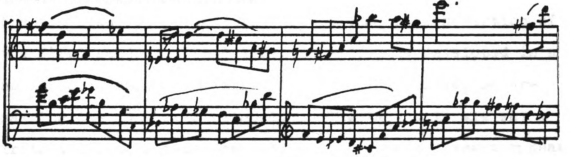
Although the tonic is clearly established at the beginning and end of the opening phrase, the intervening eleven measures are so chromatic that no one pitch can function as a tonal center. Toch re-establishes the tonic

in measure twelve by merely repeating the note "C" a number of times in alternation with the tritone F-B.

The opening theme is characterized by its pattern of ascending and descending thirds. By the fourth measure, however, the tertian figure starts to evolve (in the 'cello part) into a contrapuntal idea that emphasizes the half-step as a melodic interval. The initial statement of the theme is followed by a free restatement which begins with the four measures that opened the movement and then develops the harmonic tendencies that first appeared in the third measure. The resulting vertical sonorities (measures 17-20) sound quite dissonant, but the dissonances are mostly the result of a large number of neighboring tones.

The eight-measure phrase that makes up the second subject (Example 31) can be identified by its large melodic leaps and by the legato style which contrasts with the detaché of the first subject.

Example 31 (measures 22-25)



The second subject is set off as much by its contrapuntal treatment of the instruments as it is by its wide

melodic leaps and legato style. These identifying traits are important because there is no clear movement towards the dominant (even though the violin does end the eight-bar phrase with a sustained open "G") and because both subjects are highly chromatic. One might question the material in measures 26 and 27, which is similar to portions of the first subject. These measures use a rhythmic figuration (three quarter notes followed by two eighths) which is the reverse of a pattern that initially appeared in measure nine. The chordal style and the emphasis on the interval of the seventh (the vertical seventh, as opposed to the melodic seventh which predominates in the second subject) makes these two measures seem like variations of material that appeared in measure nine.

In the short development (measures 30-50) two of the ideas that appeared in the first theme receive most of the emphasis. The first ten measures are based primarily on small fragments made up of consecutive half steps derived from the second part of the first subject, while the second ten measures focus attention on the tertian portion of the first subject. This tertian section is developed in a number of ways, the most prominent of which involves arranging the two parts bitonally. The two parts are set a tritone apart in measures 45ff, a major second apart in measures 47ff, and a major third apart in measures 49ff. Within these same ten measures, the tertian theme is modified by the use of repeated notes, altered rhythms, and seconds interspersed within the ascending and descending thirds.

In the recapitulation (beginning at measure 51) the relative importance of the two subjects is reversed. The first theme appears only once, and the second twice, with the parts exchanged and transposed in the second appearance. (The secondary contrapuntal voice is altered considerably.) Toch does not employ the usual arrangement of keys, and, as stated before, he does not make use of strong tonal centers. It is clear, however, that the opening of the first subject appears a major second lower than in the original statement and that the second subject appears first a major second and then a minor second lower than in the exposition.

Toch includes a comparatively long coda (measures 77ff) at the end of the first movement. Its length (28 measures) makes it seem more like a second development than a coda. It contains some material that seems new, but is actually derived from the first two measures of the second subject. The tertian portion of the first subject is also used in the coda in much the same manner as in the development, with the two instruments playing the tertian theme first a tritone and then a major second apart.

In one publication Toch points out that

> ...any quality is apt to weaken and lose its effect after a while; and the best preventive for that is an offsetting and re-animating intermission. This observation touches upon the basic 'tension-relaxation' principle of form....[1]

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[1] Ernst Toch, The Shaping Forces of Music (New York: Criterion Music Corporation, 1948), p. 139.

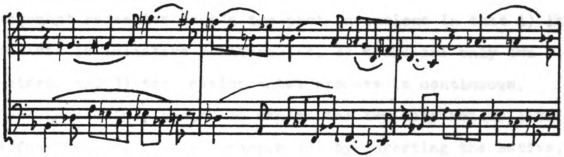
In the first movement of the Divertimento there is almost no relaxation from the constant chromaticism. Toch does establish some contrast, however, by using triadic materials along side of stepwise motion, and by juxtaposing motion in parallel octaves with counterpoint.

A rather significant relationship exists between the pitch centers of the three movements and the chromatic subject matter that is used within these movements. Toch emphasizes the chromatic nature of the piece by placing the tonal center of the second movement a half-step lower than that of the two exterior movements. A similar relationship is also evident within the theme and variations which comprise the second movement. As can be seen in the following outline, the first variation is a half-step lower than the B-minor tonality of the second movement.

Theme	B minor	measures 1-8
Variation I	Bb minor	measures 9-20
Variation II	F# minor	measures 21-31
Variation III	B minor	measures 32-38

The theme itself (example 32, 'cello part), or at least the first portion of it, is repeated in each of the three variations. Repetition is also evident in the relationship between the first and third variations. Variation III starts out exactly as variation I, but with the two transposed and in invertible counterpoint. After four measures, however, the third variation develops a contrapuntal section which is quite different from and shorter than the corresponding section of variation I. (Example 32)

Example 32 (measures 9-11)



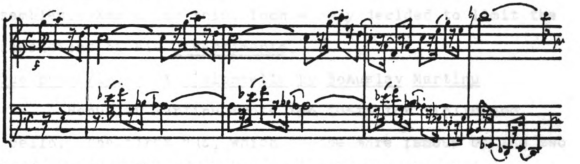
The opening of the first variation (Example 32) might serve as an example of the extreme chromaticism that pervades the Divertimento. All twelve notes of the chromatic scale are present in the first measure with only two repetitions, the notes G and E. In the second measure a similar condition exists, but with more repetitions and with one note of the chromatic scale, D, missing. Although Toch was not trying to write in the twelve-tone style, he did, through such chromaticism, write passages which lack a clear tonal center, and he thus came close to writing in the manner of Schönberg.

Although Toch's chromaticism frequently obscures the tonality of the second movement, the coda clearly establishes B minor as the fundamental tonality. Toch accomplishes this by six repetitions or variants of the motive that opened the movement. Since the first three notes of the movement form a B-minor triad, the tonality of the second movement is unmistakably established.

The last movement is based on a single two-note motive

that does not stop until the very end of the movement. This movement resembles Bach's two-part inventions in that 1) its texture is imitative counterpoint, 2) there are only two voices, and 3) the developmental process is continuous. Toch immediately begins to expand the two-note motive into a four-measure phrase (Example 33) by inverting the motive, transposing it, and enlarging the interval between the two notes from a second to a third, a fourth, or a fifth.

Example 33 (measures 1-4)



Since the same rhythmic motive appears throughout the last movement, the difference between the entries of the main subject and the episodes is not very pronounced. The main subject can be identified, however, by the sustained notes that appear along with the rhythmic motive, while the episodic sections are distinguished by the simultaneous use of the rhythmic motive in each instrument.

Since the final movement of the Divertimento lasts only about two minutes, there is not much time for extensive developmental procedures. The techniques that Toch uses include interval enlargement, up to the seventh (measure 21),

and change in the interval of imitation between the two instruments from a major third (measure 1) to a major second (measure 5).

The rich chromatic style throughout the Divertimento compensates, to some extent, for the thin texture that is normally produced by a pair of string instruments. Although this type of chromaticism does produce an effective and enjoyable piece of music, it cannot serve for long as a substitute for the fullness that can be produced by larger ensembles. Realizing this, Toch wisely decided to limit the dimensions of his Divertimento.

Duo pour Violon et Violoncelle by Bohuslav Martinu

Bohuslav Martinu wrote two duets for violin and 'cello. The first duo, which is the more famous of the two,[2] was written in 1927 and was premiered in Paris by Stanislas Novak and Mauritz Frank. At that time, Martinu had already assimilated the various influences--Czech folksong, French Impressionism, Neoclassicism, and Renaissance counterpoint--that characterize his mature works. In this first duo, contrapuntal writing and classical developmental techniques take precedence over folk music and Impressionism.

The duo is made up of two movements: a Prelude, marked andante moderato, and a Rondo, marked allegro con brio. The prelude is primarily contrapuntal. Martinu introduces an essentially tonal subject (which is reproduced

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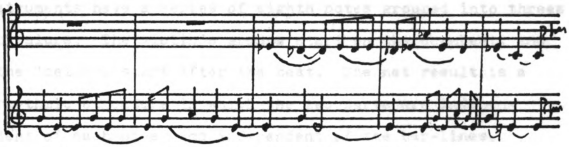
[2] The second duo was written in 1958 and is in D major. Neither one bears an opus number.

in Example 34) and devotes the entire movement to developing this theme.

Example 34 (measures 1-5)



Martinu starts the developmental process in this movement even before the first statement of the theme is completed. He accomplishes this by adding a countermelody in measure three. The countermelody is actually derived from the principal theme, although the intervals are quite different. The independent course of the two lines is reinforced by Martinu's use of bitonality, with E minor for the principal melody and Db major for the countermelody. Throughout the course of the movement, the two lines produce sonorities that are quite dissonant. The seventh measure might serve as an example. In that measure the first four intervals form an augmented unison (E to Eb), a tritone (Db to G), a second tritone (C to F#), and another augmented unison (E to Eb).

The independent quality of Martinu's contrapuntal lines is also apparent in the rhythmic structure of the phrases. These are divided into small units consisting of

two, three, or more eighth notes and are frequently arranged in asymmetrical and irregular patterns. A good example of this type of writing occurs in measure seven, where both instruments have a series of eighth notes grouped into threes by slurs. The violin's groups start on the downbeat, and the 'cello's start after the beat. The net result is a rhythmic structure in which the two parts are independent of each other and independent of the bar-lines.

The Prelude progresses from a quiet beginning to an emotional peak which occurs about two-thirds of the way from the beginning. During this prolonged build-up, the small melodic intervals of the theme are expanded and the dynamic intensity is increased. As he approaches the climax of the movement, Martinu abandons the contrapuntal style and adopts a homorhythmic style with double-stops in both instruments. This homorhythmic section (measure 40ff) includes quartal chords, seventh and ninth chords, and chords with split elements. These sonorities lead (in measure 49) to a restatement of the opening theme which sounds somewhat like a recapitulation. This section does not, however, satisfy the formal requirements of the movement, because its tonality (Gb) is too far removed from the opening key, and because the mediant root relationships that Martinu uses at this point are quite unlike anything in the simple statement that opened the movement. A more definite feeling of closure occurs in measure 61, where the 'cello reaffirms the original tonality by playing a truncated version of the opening subject.

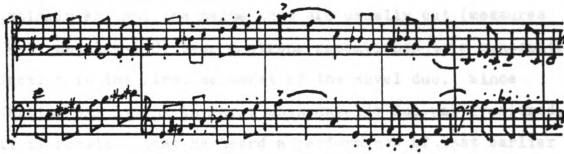
The Prelude ends with a coda which shifts the tonal center to C minor. This final shift of tonality is not so illogical as it might seem, for in the first important cadence (measure 5), the tonality of the original melody also shifts from E minor to C major. These changes of tonality might be compared to the theme itself, which is characterized by a drop of a third (albeit a minor third) and to the climax of the movement (measure 49), where the chords are merely raised or lowered by the interval of a third. It seems as if Martinu, who always had a certain amount of aversion for classical instrumental forms, was trying to create unity by using the third at various levels of the musical fabric.

The second movement of the Martinu Duo is a traditional rondo form with long cadenzas for both instruments. The various sections of the Rondo can be outlined as follows:

Measures 1-39	Rondo theme
Measures 40-72	Episode
Measures 73-102	Rondo theme
Measures 103-137	Episode
Measures 138-140	Cadenzas (based on Rondo theme)
Measures 141-190	Coda.

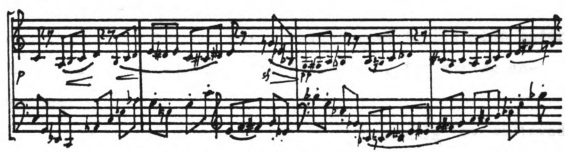
From an analytical point of view, the Rondo is not very interesting, for it is mostly a virtuoso showpiece full of sequences, scale passages, and arpeggiated figures. One of the more attractive features of this Rondo is the manner in which it constantly modulates by means of these virtuoso figures. Example 35 shows such a modulation, which occurs during the first episode.

Example 35 (measures 52-56



In some of the more rapid passages the Rondo becomes quite dissonant. Usually dissonances occur, as in Example 36, as a result of linear independence, at a rather low dynamic level. Even though the harshness is somewhat tempered by the low dynamic level, a somewhat muddled effect still results.

Example 36 (measures 83-86)



In 1944 Milos Safranek, Martinu's biographer, wrote that at that time, the Duo was more widely performed than any other work of Martinu.[3] It should be noted that in

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[3] Milos Safranek, Bohuslav Martinu: The Man and His Music (New York: Alfred E. Knapp, 1944), p. 31.

many performances portions of the Rondo are cut out. Interestingly enough, the parts that are usually cut (measures 54-74 and 124-138) bear a strong resemblance to a syncopated section in the first movement of the Ravel duo. Since Martinu was living in Paris when Ravel's duo was premiered, it is possible that he heard a performance of that earlier work. For the most part, however, the two duos are vastly different in content, form, and scope.

Sonatine pour Violon et Violoncelle by Arthur Honegger

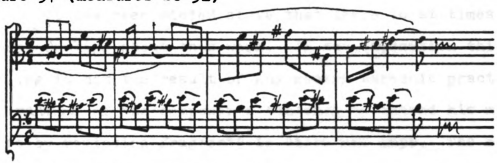
Although Arthur Honegger was at one time a member of "Les Six," he did not fully sympathize with the doctrines of Cocteau and Satie, and, as a result, he became the first to break away from the group. There must have been a serious vein in Honegger's personality that made him feel uncomfortable with the light-hearted style that was espoused by the leaders of "Les Six." Honegger did feel at home with chamber music, however, and his early training as a violinist under Lucien Capet helped him write effectively for string ensembles.

The Sonatine pour Violon et Violoncelle has achieved a certain amount of popularity, having been recorded at least four times by major artists. Its popularity is due to its attractive melodies, effective forms, and clever mixture of tonal and non-tonal elements.

The term sonatine usually refers to a simplified sonata form. In the case of the first movement, this description seems appropriate, since the development section

does not exist. This does not mean that the movement is simple and straightforward like the classical sonatinas of Clementi and Kuhlau, for Honegger has a tendency to start elaborating on his themes as soon as he presents them. A good example of this tendency occurs in the E-major melody that starts in measure twenty-eight. At that point Honegger expands a four-measure tonal melody (Figure 37) into twelve measures of melody plus development.

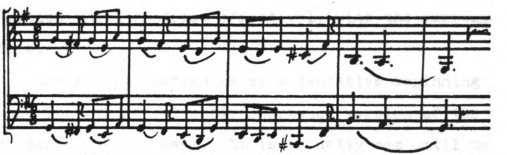
Figure 37 (measures 28-31)



This melody, along with another equally simple melody in E major (measure 14) and the opening melody (which appears in Figure 38) make up the first-theme group. Two of these themes are unified by their common tonal center, and all three are unified by the flowing rhythmic figures that appear throughout the first-theme group. The opening melody differs from the other two melodies in the first-theme group because of its modal feeling. The first five measures of this melody suggest the Lydian mode, and the following five suggest the Dorian. Modal elements also appear later in the movement, but only for very brief moments, as

a means of varying the tonal melodies.

Example 38 (measures 1-5)



It has been stated above that there is at times an atonal feeling about this work. In the exposition this feeling is not the result of any modern harmonic practice, but rather of the composer's tendency to extend his melodies by restating fragments in different keys. The melodies of the first-theme group start out in a definite key, but tend to wander away quickly so that there is no feeling of closure. Also, the modulations do not lead to the tonal center of the following sections, at least not in a decisive manner. Root relationships at important structural points often involve the interval of the third, as in measures 13-14, where the E-minor melody is preceded by G# chords; and measures 27-28, where the E-major melody is preceded by G chords.

The second-theme group (measures 41ff) is quite tonal and traditional. It consists of two sections of imitative counterpoint (one in C and the other in C#) which alternate with a C-major melody that is played first by the violin

(measures 44-51) and then by the 'cello (measures 60-64). In these C-major sections, Honegger makes use of full sonorities which contrast effectively with the surrounding texture.

The recapitulation makes a tentative beginning in measure 72 with an extremely shortened version of the theme that opened the movement. It is actually not until two measures later, when the E-minor theme (from measure 14) reappears, that a feeling of a reprise and a return to the fundamental tonality is established. As if to compensate for slighting the first melody of the first-theme group, Honegger then devotes a large section (measures 84-111) to this theme. In these measures, the modal theme appears five times, transposed to different keys and set against various countermelodies. It might be possible to hear these measures as the development, but that would not take into consideration the fact that no section in the movement re-establishes the tonic as well as the section that begins in measure 74.

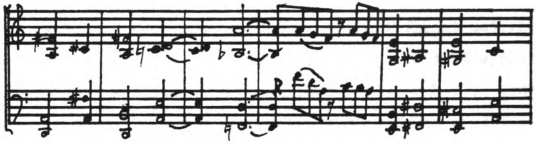
In the recapitulation the second-theme group (measures 124-142) is somewhat shortened, because only the first imitative section is represented. Portions of the distinctive melody of the second-theme group (which originally appeared in measures 44-53 in the key of C) do reappear in the coda, however, as a countermelody to the modal theme that opened the movement. Although the coda, which is marked molto tranquillo, is based on the key of E major, it moves in the final chord to E minor.

For the second movement of the Sonatine Honegger uses a modified ternary form with an andante for the first and third parts and a section marked doppio movimento for the B section. The opening A section, in D major, is made up of two parts: a lyrical first section with irregular phrase lengths (measures 1-13), and a chordal section (measures 14-19). These are followed by a six-measure transition that leads to B minor, the tonality of the B section. Although the transitional section is quite brief, it does play an important role, because its elements reappear both in the reprise and in the coda.

In the lyrical section which appears at the beginning of the second movement (after a one-measure introduction), Honegger again presents a rather simple, tonal melody which he almost immediately starts to develop in a free and irregular manner. The section can be divided into phrases of four, three, four, and two measures, but these divisions are somewhat arbitrary, because there are very few solid cadences. It is quite clear, however, that the second phrase starts in measure six because the rhythmic structure of measures two and six is identical. The third phrase can be identified by the minor subdominant chords which appear at its beginning and end. Even though the last phrase (measures 12-13) lacks the distinctive rhythm (♩♪♩) that appears in the first measure of each of the previous phrases, it is really no less melodic, for the three-note rhythm is the only element that reappears with any consistency within

these thirteen measures. The chord changes in these first thirteen measures often involve mediant relationships, as do the chord changes in the ensuing chorale, which is reproduced in Example 38.

Example 38 (measures 14-19)



In the middle part of the ternary form a five-note motive serves as the generating force for the entire section. This motive, which is inverted and transposed in the second measure, is subsequently extended and modified until an eight-measure phrase is formed. The materials from this phrase are used throughout the five distinct parts of the B section. The five parts can be outlined as follows:

Part I	(measures 26-41)	three statements of theme; one by violin, two by 'cello
Part II	(measures 42-58)	transition based on material from measure 29
Part III	(measures 59-72)	theme combined with material from part II
Part IV	(measures 73-78)	transition, similar to part II
Part V	(measures 79-94)	ascending version of original theme.

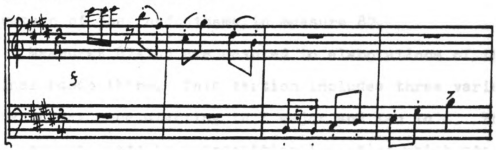
It should be noted that a secondary line, which first appears in measure five, is also derived from the five-note opening motive and that in section III the two instruments play alternating measures of the theme.

The reprise involves more than a simple restatement of the A section. It includes altered versions of the chordal subject, sections based on the transitional material from measures 20-25, and the harmonic structure that appeared in the lyrical section which comprised measures 2-13. Against this harmonic structure Honegger has set portions of the theme from the B section (in measures 105-112) so that the ternary form of the movement becomes an A B A_1 form, with A_1 consisting of elements from both A and B. The opening four notes of the lyrical subject also appear in the reprise (in measures 105, 109, and 113) but the rhythm of these four notes is somewhat altered.

In the short coda that begins in measure 117, modal elements again appear. In this case, the entire ten measures are set in the Phrygian mode.

The final movement of the Sonatine is cast in a traditional rondo form. Example 39 shows the first four measures of the main theme, which is used as the basis for the first forty-three measures of the movement. The quartal melodic intervals of the first two measures give the rondo theme a distinctive flavor, but these intervals occur only at the beginning of the movement and in subsequent appearances of the rondo theme.

Example 39 (measures 1-4)



The rondo subject is actually a compound subject consisting of a parallel period, eight measures of contrasting material, the original phrase extended to twelve measures, and a second contrasting eight-measure phrase. Since the two contrasting phrases are not much more than repeated chords (IV in the first case and V in the second), they tend to function somewhat like extensions of the main subject.

In between the rondo theme and the first episode there is an attractive seven-measure melody that leads to G major, the tonality of the first episode. Although this melody functions primarily as a transition, it stands out because its legato quality contrasts sharply with the short notes of the rondo theme and the first episode.

The first episode (measures 51-96) is made up of a violin solo which is accompanied by repeated triple-stop chords in the 'cello part. Although the violin part is set in the minor mode, the 'cello part uses only G-major chords throughout the first sixteen measures. The two instruments finally agree on a mode in measure 71, where the chord

changes to the subdominant. The violin solo continues until the return of the rondo theme in measure 87.

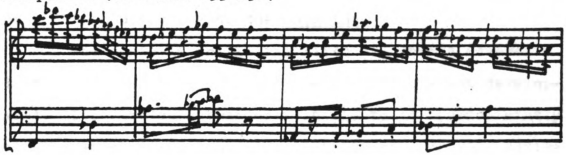
Measures 87-108 are devoted to elaborations of the original rondo theme. This section includes three variants of the theme: one starting in E major and two in A. The third variant leads to a transitional section which starts in F major, but changes in measure 113 to F# major, the tonality of the ensuing episodic section.

The F# major episode is based on a motive that uses exactly the same five-note rhythmic pattern as the first measure of the rondo theme. This rhythmic pattern () is also the reverse of the pattern that was used in the "B" section of the second movement (). The motive first appears in the violin part and is imitated by the 'cello in the second measure a minor sixth lower. The imitative process continues throughout this section, there being only four measures that do not use the motive or a portion of it.

In measures 147-177 Honegger makes extensive changes in the original rondo theme. The first change concerns the initial eight measures, and involves moving the tonality to Bb major while adding rhythmic interest to the accompanying 'cello part. In the second part of the section, the first four measures of which are reproduced in Example 40, Honegger sets small portions of the theme in the 'cello part. Against these segments, the violin plays repeated notes that create what might best be described as an orchestral sonority. The parts of the theme that are used in this section always

involve the second, or consequent, part of the rondo theme. This practice is similar to that of the original four measures, where the violin plays the antecedent and the 'cello the consequent part of the phrase.

Example 40 (measures 155-158)



The rondo section ends with repeated chords, first Gb major and then F minor, that lead to the ensuing episode.

The final episode (measures 179-210) corresponds to the episodic section that appeared in measures 51-86. In this soloistic episode the 'cello plays the leading part while the violin plays the repeated chords. Although there are some minor changes in the solo line, the only significant difference between this episode and the first is the change of key which makes the second version start in C, and then end by leading to E major in preparation for the final statement of the rondo theme.

The final rondo section, marked prestissimo, is devoted almost entirely to the opening five notes of the rondo theme. The only additional material that appears in this section is the melodic passage (measures 231-238)

that originally served as a transition between the initial rondo section and the first episode. Beginning in measure 239, the five-note motive is developed into a stretto figure that leads to a quartal chord (measure 250) composed of the first three notes of the rondo theme. A final pizzicato "E" in octaves ends the Sonatine.

The rondo is unlike the first and second movements in that it does not portray a feeling of constant development. Its straightforwardness is due to its predominantly eight-measure phrase structure, easily recognizable motives, and predictable harmonic progressions. In its simplicity, it resembles the finales that sometimes appear in Haydn's string quartets. The analogy between this work and Haydn's quartets might be carried even further, for Haydn frequently used a reduced two-part texture in his quartets. Both composers seemed to recognize that one does not always have to use complex procedures when writing for small groups.

Duo Concertante by George Rochberg

George Rochberg wrote his Duo Concertante in 1955, the same year that he published his theoretical work on the hexachord.[4] Although the duo was later revised, it still exemplifies the theories that were discussed in the 1955 treatise. Rochberg's basic theories can be deduced by an examination of Example 41, which lies at the center of the Duo Concertante. The observations regarding Example 41 are

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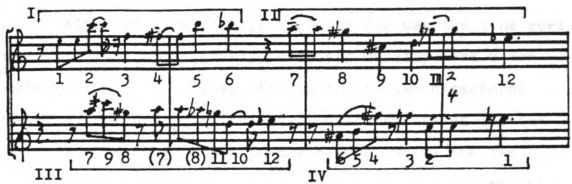
[4] George Rochberg, The Hexachord and its Relation to the Twelve-Tone Row. (Bryn Mawr, Pa.: Theodore Presser, 1955).

especially noteworthy not only because the entire composition is based on these four measures but also because Rochberg's ideas are embodied in these same four measures.

Example 41 (measures 126-129)



1 A complete row is stated in each of the two instrumental parts. (Two notes of the 'cello line, A and Ab are repetitions.)

2 Each row divides itself into two hexachords using the pitches E, F, F#, A#, B, and C for one hexachord and C#, D, Eb, G, G#, and A for the other.

3 Hexachords I and IV use the same pitches, while hexachords II and III share another set of six pitches.

4 Hexachord IV is a retrograde of hexachord I.

5 Hexachord IV is an inversion of hexachord II.

6 Each hexachord can be divided into two groups of three pitches with the pitches arranged so that the second half of each hexachord is but a transposition of the first half.

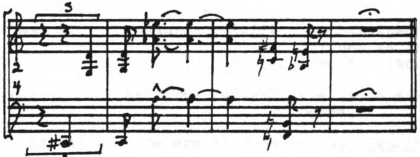
7 The second group of three notes in each hexachord lies a tritone above the first.

These observations have an importance that transcends the theoretical, for these small units of three, or even six notes are easily recognized by most listeners. Since small

groupings are much easier to recognize than a series of twelve pitches, the Duo Concertante should make more sense to the average listener than the usual twelve-tone composition.

Although a few sections of the duo use the tone rows or hexachords rather freely, Rochberg usually uses a complete hexachord at a time, often with the two hexachords played by different instruments. Combinations of the two hexachords, such as shown in Example 42, where the two hexachords are not clearly separated either in a vertical sense or in a horizontal sense, occur mostly at the endings of large sections.

Example 42 (measures 248-251)



Rochberg uses fermatas of varying lengths (𝄐 = short, 𝄒 = medium, 𝄐 = long) to identify the endings of musical units. Frequently, the fermatas are placed at the end of four measure units, but this does not mean that there is a great deal of regularity in the phrase structure, for the time signatures change very frequently. In the first twenty-five measures alone, for example, there are eleven time-signature changes.

A certain amount of repetition also contributes to the formal organization of the Duo Concertante. In fact, this work could be seen as a sonata form with the following organization (even though not every measure can be accounted for in the outline):

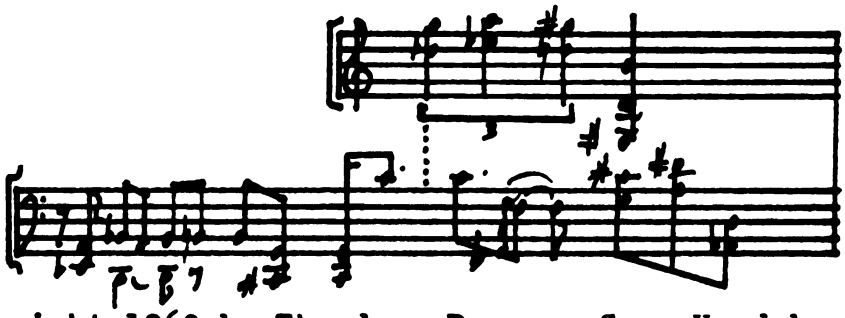
Theme I	Measures	1-20	Angular theme with irregular rhythms
Theme II	Measures	21-45	Use of recurring rhythms
Theme III	Measures	46-69	Lyrical melody plus transition
Development	Measures	70-167	
Theme I	Measures	168-181	Same pitches as exposition; minor changes
Theme II	Measures	208-224	Transposed (at the tritone)
Theme III	Measures	208-224	Lyrical theme with same pitches as in the development; also transposed
Coda	Measures	242-end	Mostly constant sixteenth notes.

It can also be argued that the Duo Concertante is not a sonata form because every measure can be seen as a development of the central four measures (Example 41) and also because the key relationships which are associated with the sonata form are not present in this work. In either case, the hexachords and the repetitions provide a considerable amount of structural unity.

All the discussion that has taken place so far has focused on the aspects of the duo that produce a sense of unity. However, there are sections, especially in the

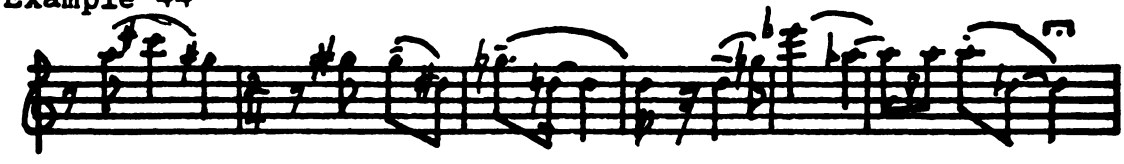
development, where hexachords are handled quite freely. Such a case is illustrated in Example 43, where three statements of hexachord II are combined with a three-note group of notes (Bb, B, and C) from hexachord I, plus the note F, which also belongs in hexachord I.

Example 43 (measures 100-101)



The lyrical melody which makes up the third theme (Example 44) might also be cited as another case in which the materials are handled rather freely. In the latter instance the melody does not form an entire row by itself, even though it is clearly derived from the original row. In this case, the similarity of the melodic lines establishes a relationship that is as effective as any statement of the complete row.

Example 44



Like other twelve-tone composers, Rochberg enjoys

using special string effects such as pizzicato, col legno, non-vibrato, harmonics, flautando, glissandi, and quarter tones for the variety that they afford. Unlike others, Rochberg successfully combines variety with a type of order that is discernible by the listener. The Duo Concertante unites these qualities with occasional flashes of lyricism which bring out the singing qualities of the string instruments.

CHAPTER IV

SUMMARY AND CONCLUSIONS

The foregoing examination of eight duets has not really touched on the question of what makes a good duet. It has, however, shown that creating big sonorities with a violin and a 'cello is not the way to write effective duets. Kodaly and Honegger occasionally use the two instruments to create large sonorities, but these are isolated instances. A few composers, most notable of which is Emmanual Moor, have concentrated on producing full sonorities, but their works have not enjoyed much success. The most important duos, those of Ravel and Kodaly, are effective simply because they employ a wide variety of ideas within logical and effective forms.

Since the main body of this thesis has concentrated on works which have already achieved some success, less successful works by well-known composers such as Milhaud, Tcherepnin, and others have been left out. Since most of the successful duets were written before 1932 by composers born in the 19th century, it may seem as if the interest in the duet was but a temporary phase--a reaction to the excessive bigness of the 19th century. This concept is contradicted, however, by the number of duets written by

composers who were born after 1900. A partial list might include the names of Henk Badings (1907), Halsey Stevens (1908), George Rochberg (1918), Ezra Laderman (1924), William S. Sydeman (1928), and Phillip Rhoads (1940). Perhaps at first, the interest in the duo was largely the result of a general reaction against the bigness of Romanticism. Now, interest in the duo (and other small ensembles) is influenced by sociological considerations at least as much as by aesthetic ones. For evidence of the increased interest in small ensembles one need only look at the many different types of instrumental combinations that are being used. These range all the way from woodwind quintet plus violin and 'cello[1] to duets for flute and string bass.[2] The current interest in chamber music has at times been ascribed to the fact that professional orchestras seldom program new music and most non-professional orchestras are not capable of playing the new music.[3] As a result, many composers have turned to other types of music, including chamber music. The situation is not really as lamentable, however, as some composers would have us believe. It seems only proper for a

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[1] Isang Yun, Music for Seven Instruments (Berlin: Bote and Bock, 1959).

[2] The well-known bassist, Bertram Turetsky, has collected works for flute and bass by William Sydeman, Alvin Epstein, Eugene Martin, Ben Johnston, M. William Karlins, Peter Pindar Sterns, and Donald Erb.

[3] This viewpoint is stated by David Hamilton in "Current Chronicle--New York," Musical Quarterly, (January, 1966), pp. 90-93.

composer to prove his ability with small ensembles (even though it is often more difficult to write for small groups) before trying to write for full orchestra. Beethoven certainly followed this course (by publishing thirty-two chamber works before his first symphony), as did Haydn and countless other composers.

The phenomenal growth of chamber music has resulted in a wide variety of compositions for violin and 'cello duet ranging from the most esoteric to compositions which are suitable for amateur players. A partial list of the latter type would include works by Abraham Daus, Charles Lichter, Michael Bielski, Erdhard Karkoshka, and Siegfried Borris. The duos by Halsey Stevens and Alexander Tansman are in a special category, for they are among the very few duos that have been written for young students.

In spite of all the activity on the part of composers, the number of performances of violin/violoncello duos does not come close to the number of performances of works for unaccompanied violin or unaccompanied 'cello. A sizeable number of solo performances are, however, concerned with the unaccompanied works of Bach, in contrast with the performances of duos, which most often comprise twentieth-century works. One of the difficulties that duos face is that they are about as demanding on the performer as are unaccompanied solo works and, in addition, they require more effort in solving ensemble problems and problems that arise as a result of differing views on intonation. One

might well wonder who is going to take the time to work out the many technical and musical problems that are involved in playing duos. Most of the performers who have been active in the field are related to each other by blood or marriage. The outstanding exception has been the Heifetz-Piatigorsky Duo. These two performers have created considerable interest in the duet form, even though their concerts have not been made up entirely of duos. Instead, the duos have been interspersed amongst other chamber works for which "guest" musicians have been invited. A similar approach might be of great value to some of the colleges and universities that can only afford to have two string players on their faculty. These could serve as a nucleus around which a chamber music series could revolve. The repertoire could include duos and, as in the Heifetz-Piatigorski concerts, other musicians from the community could help in performing larger works. In this way, the string faculty might both inspire and help community musicians as well as promote contemporary music by performing some of the many worthwhile twentieth-century duets.

APPENDICES

APPENDIX A

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APPENDIX C

DUETS IN MANUSCRIPT

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Contreras, Salvador. Sonate. Copy in library of the composer (Mexico City).

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Eimert, Herbert. Variationen. Copy in library of Alexander Feinland.

Eller, Daniel. Duo. Copy in library of the composer (Claremont, California).

Engels, Christian Joseph Hendrius. Duo. Copy in library of Alexander Feinland.

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Giarda, Luigi Stefano. Duos for Violin and Cello. Copy in library of Alexander Feinland.

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Hijman, Julius. Duo. Copy in library of Alexander Feinland.

Lolewa, Hans. Duo for Violin and Cello. Copy in Stolkholm, Sweden (Composer's Union).

Hoeck, W. Les Deux Voix. Copy in library of Alexander Feinland.

Klerk, Albert de. Sonate. Copy in library of Alexander Feinland.

Kreal, Ernest. Duo. Copy in library of Alexander Feinland.

Kremenliev, Boris. Divertimento. Copy in library of the composer, UCLA, Los Angeles.

Nanatsuya, Hiroshi. Sechs Kanonische für Geige und Cello. Copy at Lenin State Library, Moscow.

Scherber, Ferdinand. Sonata. Copy in library of the Composer, Vienna.

Schrieber, Fritz. Suite for Violin and Cello. Copy in library of Alexander Feinland.

Spring, Glenn Ernest, Jr. Three Dances for Violin and Cello. Copy in library of the Composer, Walla Walla College, College Place, Washington.

Swift, Richard. Elegy. Copy in library of the composer, University of California at Davis.

Wilson, Richard. Music for Violin and Cello. no information available, see Appendix D.

APPENDIX D

RECORDED DUETS

Gliére, Reinhold, Eight Duets.
Columbia Records : (Heifetz and Piatigorsky) M 33447.

Honegger, Arthur. Sonatine pour Violon et Violoncelle.
RCA Records: (Heifetz and Piatorgorsky) LSC 2250.
Everest: (Schoenfeld Duo) 3243.
Elite: (Bas and Krabansky) 7063/3.
Vox: (Lautenbacher and Varga) 3-Vox Su Bx-560.

Kodaly, Zoltan. Duo, opus 7.
Orion: (Schoenfeld Duo) 7257
Period: (Eidus and Starker) SPL 602
RCA: (Heifetz and Piatigorsky) LSC 2250.
Vox: (Lautenbacher and Varga) 3 Vox-Su Bx 560.

Martinu, Bohuslav. Duo pour Violon et Violoncelle.
RCA: (Heifetz and Piatigorsky) LSC 2867

Ravel, Maurice. Sonate pour Violon et Violoncelle.
Amphion: (Schumsky and Greenhouse) B6.
Classic Editions: (Urban and Herbert) 1005.
Columbia: (Laredo and Parnas) 33529.
Everest: (Schoenfeld Duo) 3243.

Rochberg, George. Duo Concertante for Violin and Cello.
Advance: (Kobjalka Duo) S6.
Composer's Recordings, Inc: (Sokol and Fischer).

Toch, Ernst. Divertimento, opus 37, no. 1.
Orion: (Schoenfeld Duo) 7267.
RCA: (Heifetz and Piatigorsky) LSC 3009.

Villa-Lobos, Heitor. Deux Choros (bis).
Columbia: (St. Malo and Magg) 70714.
Victor: (Bergerth and Gomes-Grosso) 12203.
Everest: (Schoenfeld Duo) 3243.

Wilson, Richafd. Music for Violin and Cello.
Composer's Recordings, Inc. (Matsudera and Sherry).

Wagner, Joseph. Preludes and Tocatta.
Orion: (Schoenfeld Duo) 7036.

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