Modern Arranging and Composing

MODERN ARRANGING TECHNIQUE

"A comprehensive approach to arranging and orchestration for the contemporary stage band, dance band, and studio orchestra."

by Gordon Delamont

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(REVISED EDITION)

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BIOGRAPHICAL SKETCH

GORDON DELAMONT was born in Moose Jaw, Saskatchewan, Canada, and received his first musical training in Vancouver, British Columbia. While in his early teens he was trumpet soloist with the world famous Vancouver Kitsilano Boys Band. This band, conducted by Mr. Delamont's father, has won major contests the world over, starting with the 1933 Chicago World's Fair and culminating in four consecutive first place ratings at the World Music Festival in Kerkrade, Holland, in 1958, 1962, 1966 and 1970 respectively.

Mr. Delamont's career as a professional trumpet player began in 1939 in Toronto, and in the following twenty years he played with virtually all of Canada's leading dance and studio orchestras. During this time he also formed and directed his own band which enjoyed great success in Canada until he started his present career as a teacher of harmony, arranging and related subjects. He opened his own studio in 1950, and since then has spent full time in teaching and writing, his two primary interests. His students have come from the United States and Europe, as well as Canada, and may now be found in successful musical positions the world over.

Along with teaching, Mr. Delamont has pursued his own writing in the field of jazz composition and arranging. He has had works commissioned and performed on CBC, CTV, and on many concerts and concert series. He has also written a number of articles for such magazines as Canadian Music Journal, Music Across Canada, Crescendo, and Jazz Monthly.

His rich musical heritage and experience, combined with his scholarly approach in teaching and writing, make Mr. Delamont an eminently qualified author of this text on modern harmony, composing, and arranging. It is our opinion that his works will stand for many years as the most comprehensive and definitive approach to serious study of these subjects.

The Publisher

FOLLOWING IS THE COMPLETE LIST OF BOOKS ON MODERN ARRANGING & COMPOSING BY GORDON DELAMONT:

MODERN HARMONIC TECHNIQUE (Volume I) *The Elements of Harmony*

MODERN HARMONIC TECHNIQUE (Volume II) *The Advanced Materials of Harmony*

MODERN ARRANGING TECHNIQUE *A comprehensive approach to arranging and orchestration for the contemporary stage band, dance band, and studio orchestra*

MODERN CONTRAPUNTAL TECHNIQUE *An examination of non-chordal counterpoint for the contemporary composer and arranger, including pan-diatonicism, quartal harmony and poly-tonal technique*

MODERN TWELVE-TONE TECHNIQUE *An examination of serial writing for the contemporary composer and arranger*

MODERN MELODIC TECHNIQUE *An examination of melody for the contemporary composer and arranger, including a survey of psychological, technical, and structural considerations, and the song form*

FOREWORD

The study of arranging can be undertaken in two ways:

1. Begin with a study of traditional harmony and voice leading, and then relate these to modern arranging practice.
2. Begin with the practice, picking up the theoretical principles along the way.

Both methods are possible, but the first, while not without problems, is preferable, and usually faster. This book will offer some aid to the reader who hasn't studied basic harmonic techniques. It is mainly directed, however, at students who have gained, in some way, a background in harmony and part writing. **MODERN HARMONIC TECHNIQUE** (Volumes I and II), contains a thorough investigation of the harmonic processes which underlie modern arranging, and is designed to prepare the student for the contents of this book.

A knowledge of counterpoint is not assumed since I have never found that a study of counterpoint is essential for a modern arranger. On the other hand, I have never met any arranger, no matter how proficient, who didn't become a better arranger from the study of it. I would regard such a study as obligatory for anyone interested in composition, jazz or otherwise. The study of counterpoint should be a part of every serious writer's plans.

A student who is unable to study with a competent teacher and writer will be able, by close attention to the text and the assignments in this book and in **MODERN HARMONIC TECHNIQUE** (Volume I and II), to gain a good knowledge of the subject matter, provided he supplements this with a great deal of listening, ear training, and experimentation. Proper professional guidance is also recommended. A book can present the theories and the procedures, but it cannot give personal advice, correction, encouragement, and criticism. It is these things which best serve the learning process.

When possible, try to get a performance of everything you write; not just the arrangements but also the four or eight bar exercises. Unless performers are involved in a formal, paid rehearsal they are almost always cooperative and glad to take a little time to play student work. Make a regular practice of score study too. Many publishers have modern scores which can be purchased and, also, the individual parts of a "stock" arrangement can be transposed onto a concert score for detailed examination. Some publishers now include a full score with stage band arrangements. (See the Kendor "Prom Series".)

The most important requirement in the study of arranging, or anything else, is INITIATIVE. All that a student really needs, other than a pencil and some manuscript, is a strong desire to learn plus the initiative to develop, by any and all means, his mental and aural capacities.

It is hoped that this book will be of some help in this development.

GORDON DELAMONT

TABLE OF CONTENTS

PART ONE

THE INSTRUMENTS

ularly the ranges and basic information concerning the most frequently used instruments. After that, use this area of the book for reference.

The best way to become familiar with an instrument is to learn to play it. The second best is a conversation with someone who has. Most players are more than willing to discuss their instrument and its problems, so when there is doubt about any instrumental point, ask the man who plays it. If a competent player holds a view which is contrary to that of a text book, take the advice of the player.

Chapter 1

THE RHYTHM SECTION

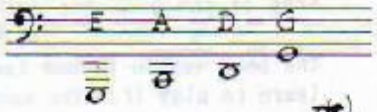
I. THE STRING BASS

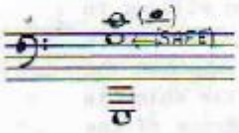
In the modern orchestra the bass holds a unique position. It is important from three aspects: Rhythmic, Harmonic, and Melodic. A satisfactory bass part must meet the requirements of all three.

Rhythmic: The importance of the bass as a rhythm instrument is undeniable. Whether it is more or less important than the drums is only an academic question, since a good rhythm section requires close cooperation between the two.

Harmonic: Because, normally, the bass is the bottom of the orchestra, its "harmonic" role is vital. Just as in "school" exercises in four part writing, the bass part in an arrangement will often outline the harmonic progression. The harmonic pulse, the strong and weak beats, contrary motion, the cadences, the transient modulations, etc. are all factors which must be considered when choosing the bass notes.

Melodic: Since the bass is an "exposed" part, and because it provides the strong and even line against which the upper parts use syncopation and oblique motion, the quality of the bass melody is important. Melodic curve, action and reaction, resolution of dissonant leaps, and all other factors of melodic control must be given attention.

The standard bass has four strings, tuned as follows: 

Concert range: 

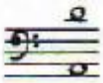
Written range (octave higher): 

Concert passage: 

As written for bass: 

Furthermore, in order to avoid writing numerous leger lines, the bass part is normally written an octave higher than it sounds *even on the actual score in concert key.*

The range given above should be regarded as a "solo" range. In normal "foundation" rhythm parts, the best results will be obtained if the part is confined to:



(as written)

with a tone or so at each end when necessary.

Notes which can only be played on the low E string tend to lack clarity, and it is best to avoid the low E itself since it can only be played on the "open" string and is, therefore, more difficult to control. Upper register bass is valuable for solo passages, or for the driving and melodic type of bass line sometimes required when four notes to the bar are used. "Foundation" rhythm, however, does not often use the upper leger lines.

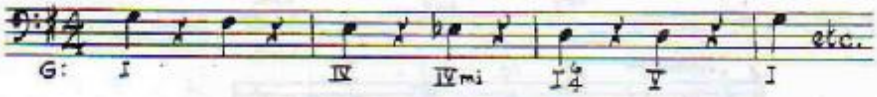
For fundamental rhythm the bass plays the first and third beats of the bar, which is sometimes called "2/4" bass. This type of bass part is extensively used at medium slow through to fast tempos. The "two in the bar" bass part consists chiefly of roots and 5ths, with occasional 3rds. In chord repetitions, the fifth may be used alternately with the root (the "arpeggiated $^{6}_{4}$"):

Remember the "harmonic" aspect of the bass part, however. Strong "resolution" progressions, cadences, etc., should be in root position, as:

POOR! 

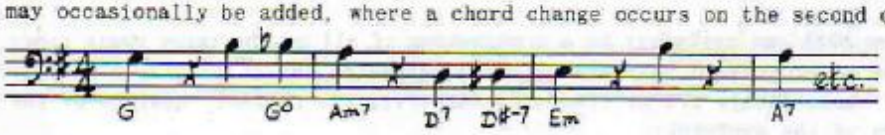
Corrected ("idiomatic V^{6}_{4}") 

The 3rds and "passing 7ths" are quite acceptable, with due consideration for voice leading logic, as:



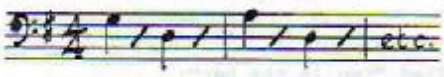
During "chord repetition" a more free use of passing tones is possible, as:

An extra note may occasionally be added, where a chord change occurs on the second or fourth beat:



The "four in the bar" bass part falls, for investigation purposes, into three categories:

1. It may simply involve a repetition of the notes of the "two in the bar" part, as:

can be abbreviated: 

2. It may employ a *broken chord* technique:

This requires a greater technical facility from the performer, particularly at faster tempos. It is more dynamic and melodic, but less fundamental.

3. It may employ more "non-chordal" tones, with a greater use of steps and scale patterns:

This style of bass part has a maximum of rhythmic "drive", and should be situated in the upper middle register. The "inharmonic" tones will be safest if they are of the "unaccented" type (passing tones and auxiliaries) occuring on the weak second and fourth beats:

Occasional appoggiaturas, and chromatic passing tones which don't agree with the chord, may appear provided due consideration is given the situation in the other parts. For instance:

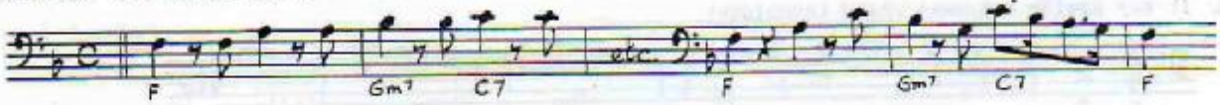
This is entirely acceptable:

but this is questionable:

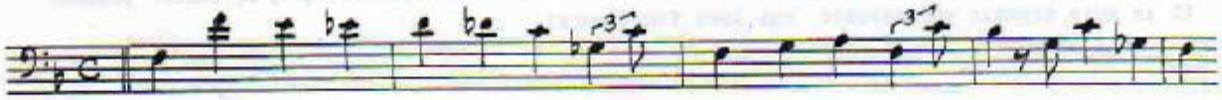
In practice, the bass part can certainly be a combination of all of the three basic types discussed above. It should be kept close to the basic chord progression and it should be a well-formed and logical melody. If these things are handled satisfactorily the rhythmic quality of the part will then be in the hands of the performer.

In both the "two in the bar" and "four in the bar" bass parts, variations and modifications are available, and often desirable. A little integration of the bass into the overall musical texture can be very effective, as long as his role as a "time-keeper" is not overlooked. To illustrate:

Modified "two in the bar":



Modified "four in the bar":



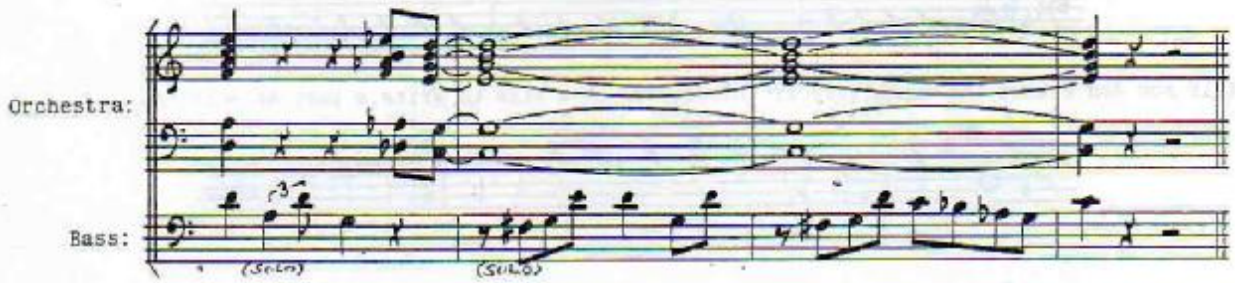
The Latin rhythms are available:

Beguine:

Rumba:

Tango:

The bass may function as a solo instrument, under sustained chords, or for brief "fills", as:

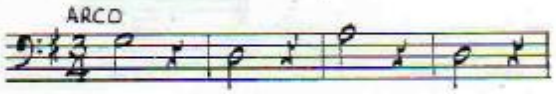


Use of the Bow

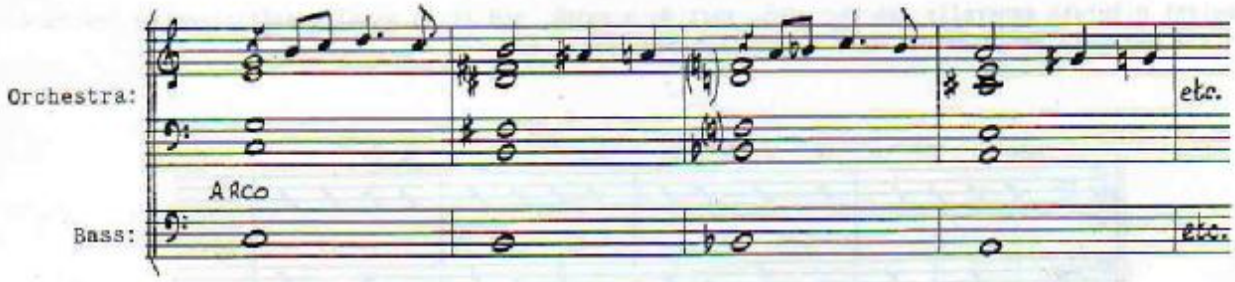
In the idiom with which this text is concerned, the bass player will "pluck" the strings unless otherwise directed. This is called **pizzicato** and abbreviated **pizz**. In all previous examples and discussion pizzicato bass was assumed.

When the bow is required, mark the part "arco", and it can often be used to advantage. For instance:

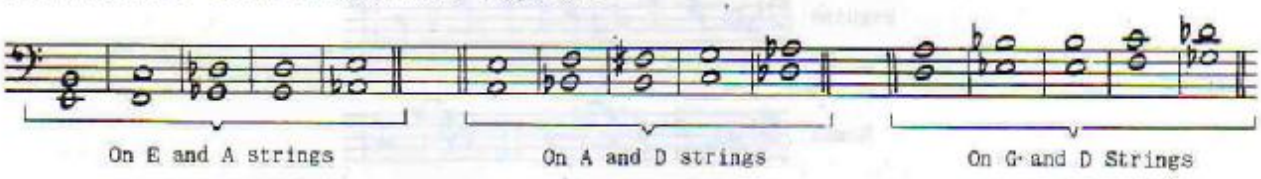
Waltzes, where only the 1st beat of the bar is played, are often effective with the bow:



The bow can be valuable for sustained tones in organ points, final chords, broad introductions, etc. It blends excellently with low reeds and/or brass. For example:

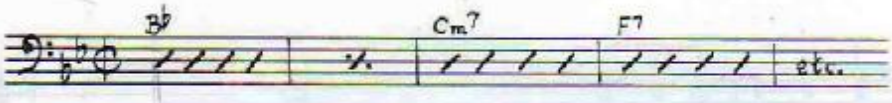


"Double stops" may be used for sustained or organ point passages. The 5ths are usually employed in root position. The available double stops are:



(Although the performer can play pizzicato with the bow in his hand, it's wise to give him a little time to pick it up.)

Finally, chord *symbols* only may be used for the bass behind ad lib solos, as:



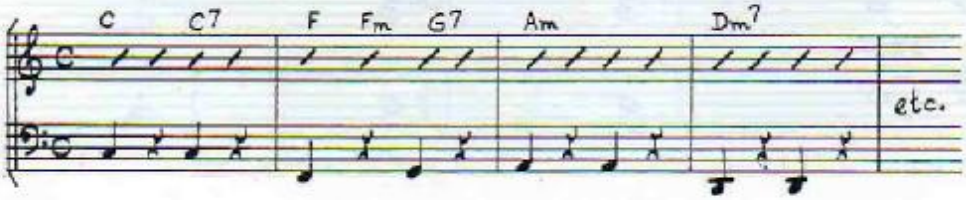
But if you don't know the capability of the player, it's wise to write a part as well, as:

II. THE PIANO

Range: (written as sounds)

Large stage and dance orchestras usually use a piano, but its value lies in solos and particular orchestral effects. It isn't a necessary ingredient in the rhythm section. In smaller groups, where it can provide harmonic fortification and melodic embellishment, its value is not to be denied.

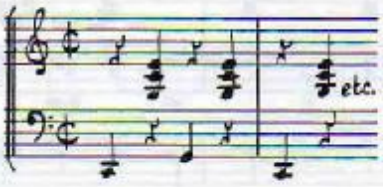
Competent pianists generally use the piano part as a guide, and it is usually sufficient to indicate only the harmonic progression, with a skeleton bass part, as:



At points where the orchestration requires a particular piano usage, it should be written and the part should contain whatever "cues" are necessary. In situations where the orchestration doesn't need the piano, *don't hesitate to omit it.*

When, for some reason, chord symbols only are not sufficient, piano rhythm can be written as follows:

Light and rhythmic. "Two in the bar" bass with three part chord on weak beats in the treble

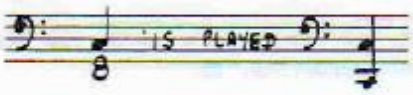


or for more energy: (4 in the bar bass)

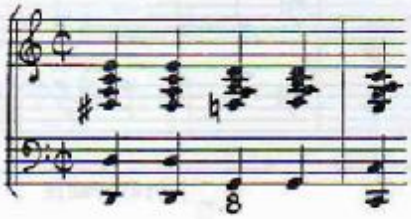
Heavier right hand: ("Four beats in the bar")

Very heavy: (4 beats in both hands)

*Note: To avoid writing numerous leger lines, the figure "8" is written below the note to indicate an octave doubling, as:



Four note chords may be used in the right hand:



and the right hand can be abbreviated when there is no change of chord, as:

DETAILS:

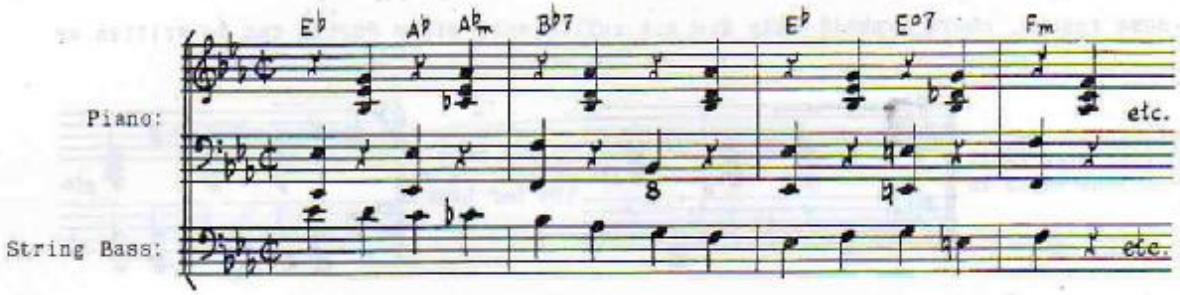
The Left Hand

The left hand part will generally be written to sound the same as the string bass, but will be notated at actual pitch. To illustrate:

Piano:

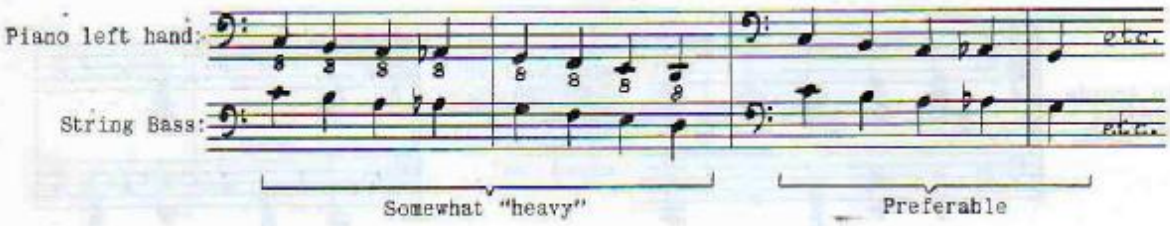
String Bass:

In faster tempos, when the bass is playing a "melodic" line, the left hand of the piano may be written with only a basic two in the bar:



Avoid striking an inharmonic simultaneously with its resolution, as:

If it is desirable to have four notes in the bar in both the String Bass and the piano left hand, the use of single tones only will be less ponderous, as:

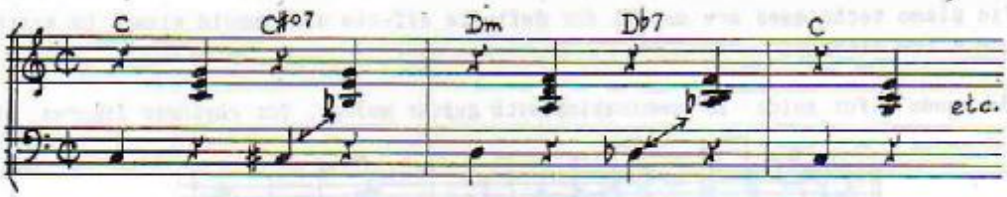


The Right Hand

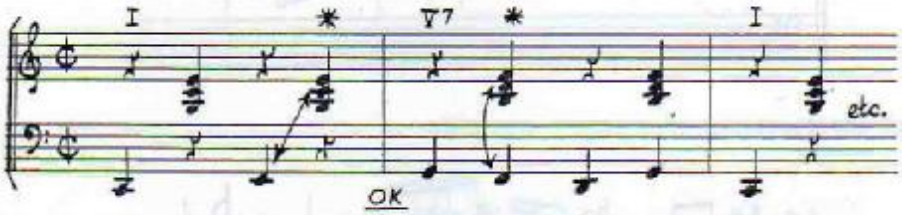
Generally, keep the right hand chords within this range: 

Keep the top notes of the chords moving in as straight a line as possible. Retain common tones in the same voice, and resolve tendency tones in the same voice. To illustrate:

A chordal tone in the bass may be omitted in the treble, as:



However, irregular doublings between the bass and treble are of no real consequence:

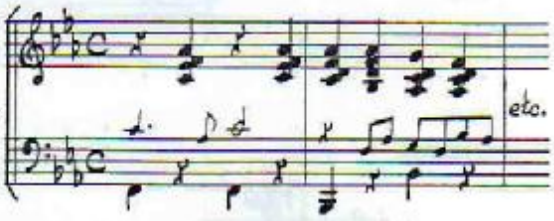


Variations of the basic rhythm are always available, as:

In commercial orchestrations the melody is often "cued" in small notes, and this is particularly valuable in accompaniments to vocal solos.

In treble for brass lead or female vocal:

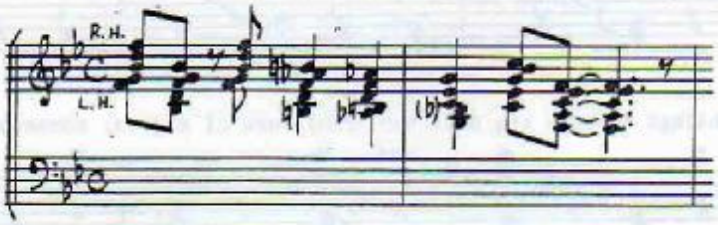
In bass for saxophone or trombone lead, or male vocal:



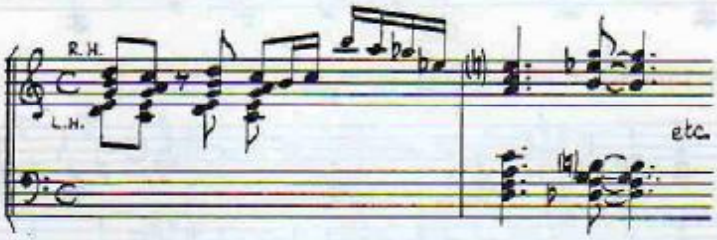
The "Rhythm" style of piano, as written in the foregoing examples, is not used in modern playing because of the clumsy sound it imparts to the section. The use of a "guide" part (chord symbols) is preferable, since this allows the capable performer to create a part which complements the "flow" of the rhythm section and adds color to the arrangement as a whole. Some excellent arrangers simply outline the harmonic progressions in non-rhythmic style by writing the chords in half-note or whole-note values to serve as a guide. Others actually write the piano part as they feel it should be played to fit the arrangement, usually in a light "fill" or accompaniment style. Still others use a combination of these styles.

Some specific piano techniques are useful for definite effects and should always be written out. Following are a few examples:

A. "Locked hands": For solos, in combination with guitar melody, for rhythmic figures, etc.



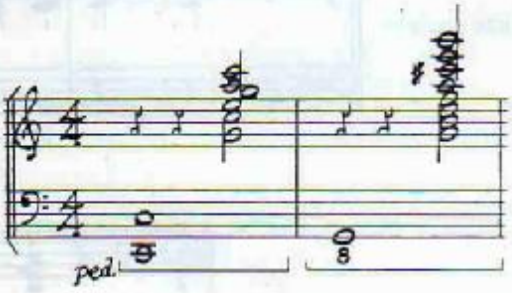
Variations and modifications of this are available, as:



(Irregular spacing between hands may sometimes be necessary)

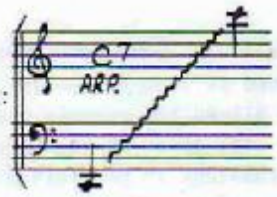
B. The Pedals

Pedal indications are not usual in the type of piano writing being considered here. The pedaling is left to the discretion of the performer except where sustained effects or pedaled arpeggios are specifically required. The right pedal removes the dampers from the strings, allowing the the note or chord to sustain. To illustrate:



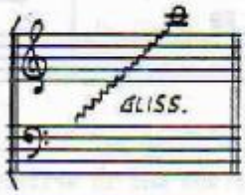
C. Arpeggios

which can be abbreviated:

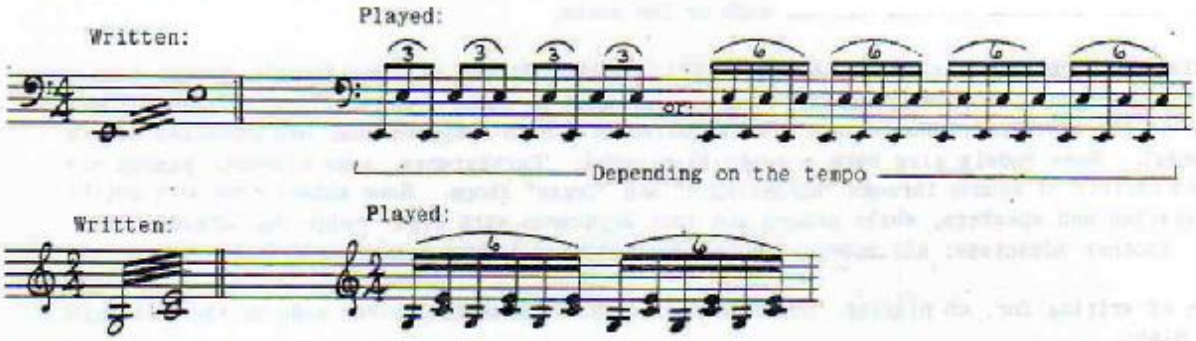


D. The Glissando

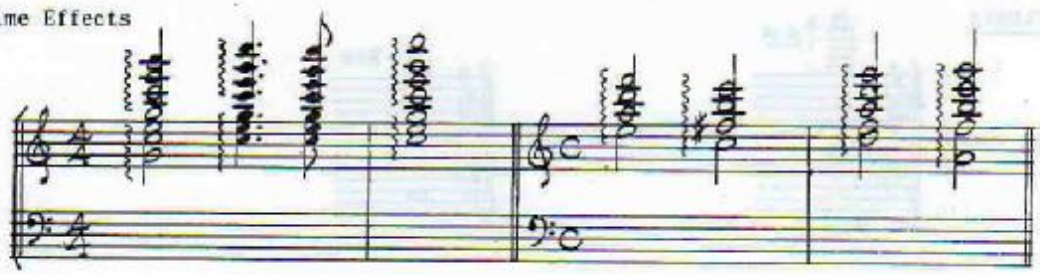
May be played on the white keys OR the black keys:



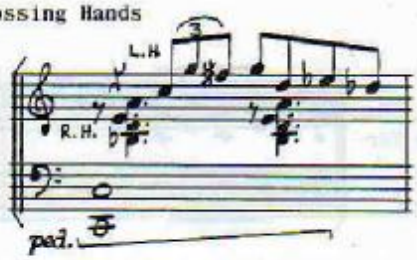
E. The Tremolo



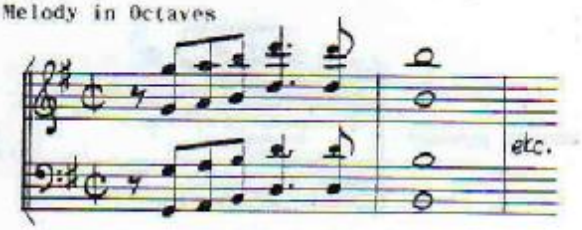
F. Chime Effects



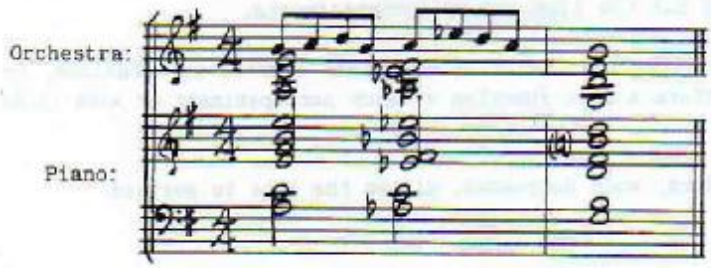
G. Crossing Hands



H. Melody in Octaves



I. The piano may be used as "harmonic fortification". This can be particularly useful in small groups, as:



Finally, for an ad lib piano solo, merely write the melody line in the treble clef and indicate the chords, as:

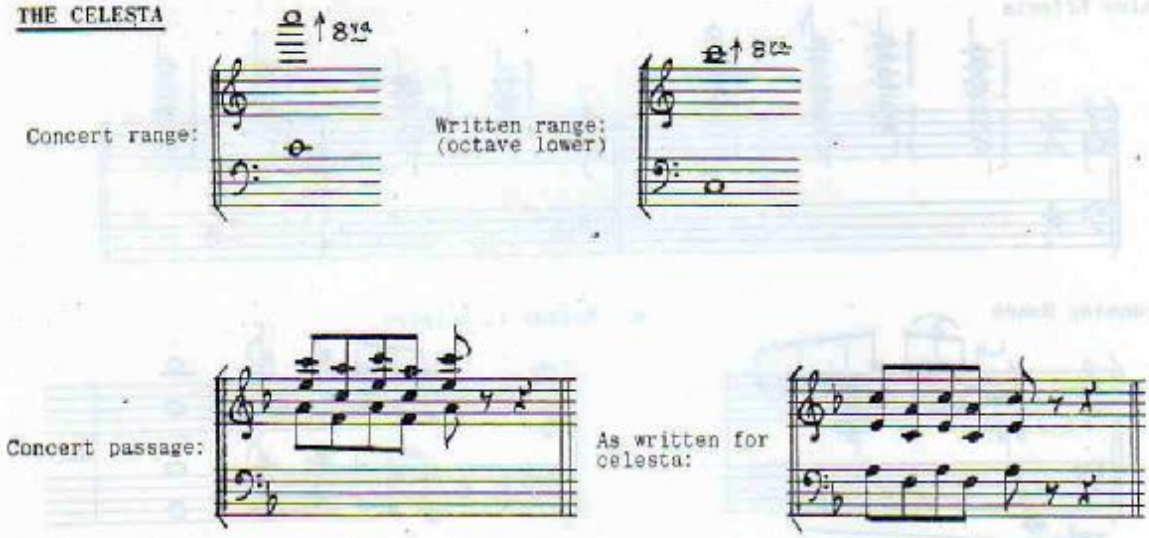
The Electric Piano

The electric piano is similar to a regular piano and is written as it sounds. Its range is variable, however, and virtually all models have a shorter keyboard than the regular piano. Just how much shorter depends on the manufacturer, but it will be shorter by at least an octave at both ends. It is wise, then, to avoid writing extreme high or low notes.

The advantage in the electric piano is its dynamic range. It can be considerably louder than a normal piano, making it extremely valuable when surrounded by other instruments with high volume. The volume of the electric piano is sometimes adjusted by a hand-operated knob, and sometimes with a "swell" pedal. Some models also have a sustaining pedal. Furthermore, some electric pianos are capable of a variety of sounds through "harpsichord" and "organ" stops. Some models come with built-in amplification and speakers, while others are just keyboards with legs, requiring outside amplification. Another advantage: all models are, to a greater or lesser degree, portable.

Techniques of writing for, or playing, the electric piano are essentially the same as they are with a regular piano.

III. THE CELESTA



The celesta is, like the piano, a keyboard instrument, but much smaller. The tone is produced from small steel bars instead of strings and has a light and bell-like quality. It is not powerful and will be overshadowed by anything but the lightest of accompaniments.

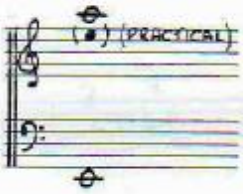
It can be effectively used to outline and "point up" a melody carried by woodwinds, to play light and silvery arpeggios, or to perform a solo function without accompaniment or with light accompaniment.

It is equipped with one pedal which, when depressed, allows the tone to sustain.

IV. THE GUITAR

The guitar has six strings, tuned as follows:

The guitar part is usually written an octave higher than it sounds, *even on the Concert score.*

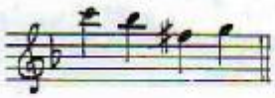
Concert range: 

Written an octave higher, in treble clef: 

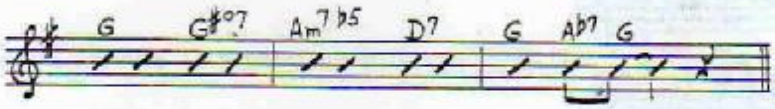
Concert C: 

As written for guitar: 

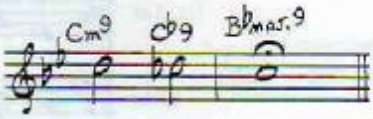
Concert passage: 

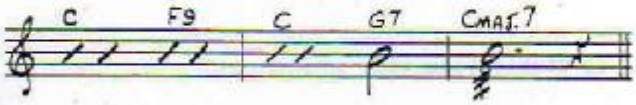
As written for guitar: 

When used as a rhythm instrument, only the chord symbols are indicated, as follows:

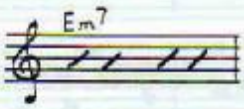


If a particular note is desired at the top of the chord, this can be indicated. The voicing can be left to the player, as:

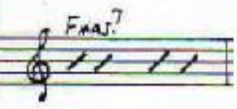


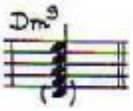
Sustained chords and tremolos can be indicated: 

Generally, the guitar symbols give only the triad, *four part*, and occasionally *five part chords*. The 11ths, 13ths, etc., are not normally indicated. Sometimes symbols which use only the upper part of the chord are given, as:



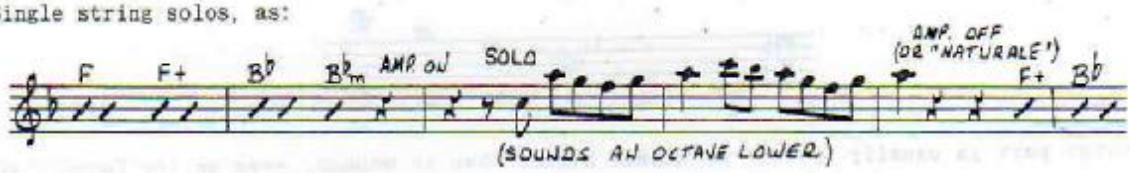
instead of: 



instead of: 

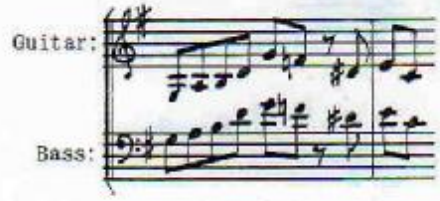
Most guitarists have either electrical amplification attachments or electric guitars. This amplification may be used for:

1. Single string solos, as:

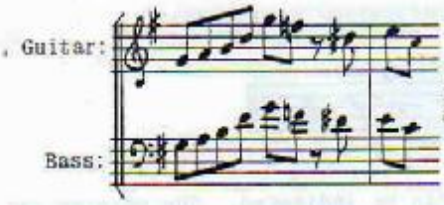


2. Ad lib solos. Indicate the chords and possibly the basic melody:

3. As a bass, or in unison or octaves with the bass:



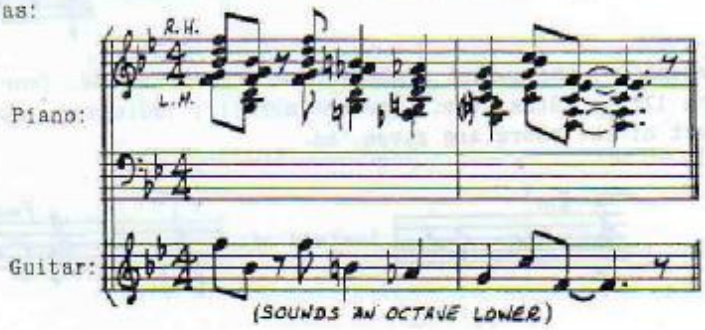
in unison, both sounding an octave lower, or:



in octaves. This register will provide a cleaner attack on the guitar.

The use of bass and guitar in parallel 10ths is an interesting effect:

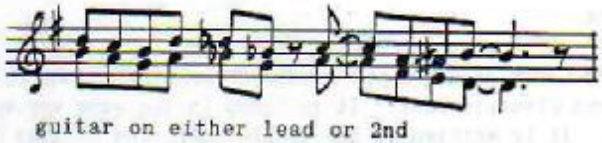
4. In combination with locked hand piano, as:



5. There are many other ways in which the amplified guitar can be used as a single voice. For instance:

a. Doubled melody:

b. In duet with piano, with clarinet, etc.:

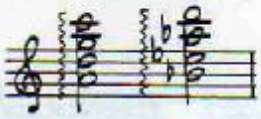


guitar on either lead or 2nd

c. In the low register, the guitar can be used with the saxophone section, either functioning as a harmony part or in the manner of a baritone saxophone:

It is well to remember, however, that the attack of the amplified guitar is rather incisive, and legato passages may not be effective. When necessary the attack can be softened with the use of the thumb instead of the pick.

The guitar can perform arpeggios effectively. In the higher register, they have harp-like quality:



V. THE HAWAIIAN (Steel) GUITAR

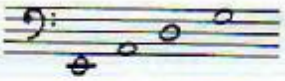
The strings, instead of being fingered, are altered in pitch by sliding a steel bar along them. This is not indicated in the part. Indicate the melody and the chord symbols, as:

VI. THE ELECTRIC BASS (and BASS GUITAR)

The electric bass is a four stringed instrument tuned exactly the same as the upright *(acoustic)* bass:

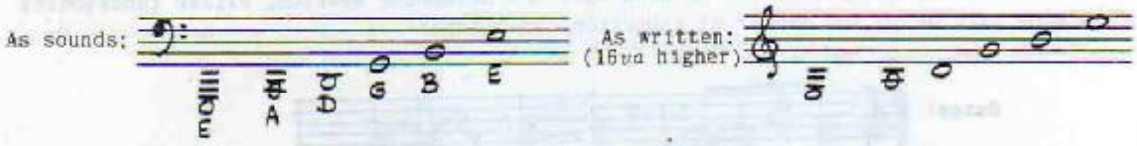
As sounds:

As written:



The electric bass is capable of considerably more agility than the standard string bass, and also of more sustaining power and much more volume. It can play the same kind of a part as the acoustic bass, although not quite as *crisply*, but it is capable (in the hands of a good player) of remarkable facility. It is completely at home in the florid type of bass parts associated with rock music and related areas. Many, if not most, of the bass parts in this music are devised by the player himself, working only from chord symbols. It is not a bad idea to indicate the general type of line desired, and after that the player can work with a symbol guide only. There are many types of rhythmic approach to rock bass parts, and the student writer is advised to listen carefully to various rock styles. One clue: most rock bass parts are associated with an essential underlying *eight in the bar* feeling.

The BASS GUITAR is a six stringed instrument which has not enjoyed the wide usage of the four stringed electric bass. It is tuned in the same way as the regular guitar, but is pitched an octave lower. It is written in the treble clef, two octaves above actual sound. To illustrate:

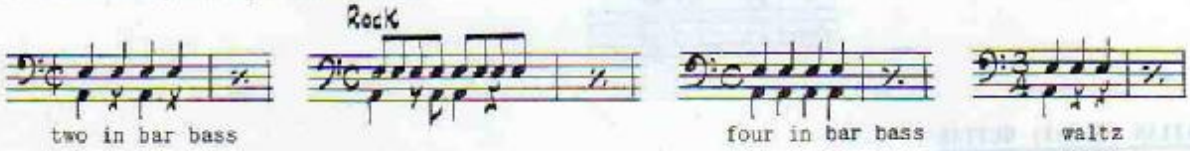


VII. THE DRUMS

Drum parts are written in the bass clef, with no key signature. The bottom space (A) is used for the bass drum and the middle space (E) for the snare drum:

Except for specifically required details, such as rests, particular rhythms, etc., the drummer enjoys a great deal of freedom, and his part is merely a guide.

Here are examples of basic drum parts:

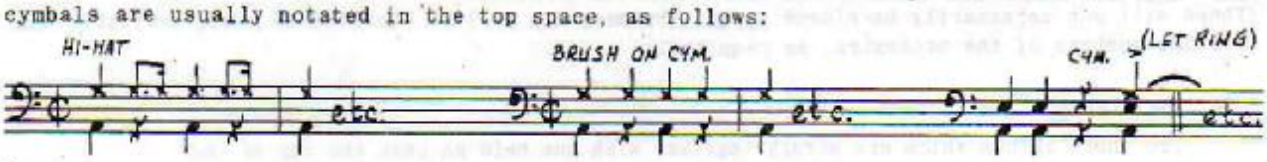


(The first bar of each line should be written in full, and the repeat bar abbreviations shouldn't exceed 8)

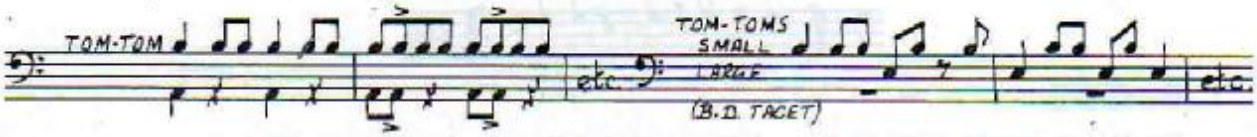
The snare drum may be played with sticks or brushes. Sometimes this is left to the discretion of of the player, but it can certainly be indicated. The brushes are often used in vocal backgrounds and other "light" orchestration.

In situations where nothing specific is required from the drummer, the part may be further simplified, as:

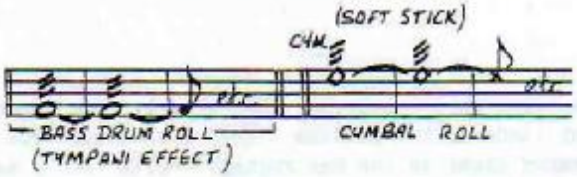
In addition to the snare and bass drums, the drummer will normally possess a foot cymbal ("Hi-hat"), a large and small cymbal affixed to the bass drum, and a large and small tom-tom. The cymbals are usually notated in the top space, as follows:

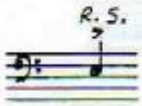


and the tom-toms are notated wherever convenient, as:



There are a number of specific drum techniques, such as the flam, drag, ruff, crushed ruff, paradiddle, ratamacue, etc. The drummer is acquainted with these and will know when and where to use them. But the "roll" and the "rim shot" are effects which the orchestrator may often find valuable, and should be notated, as:

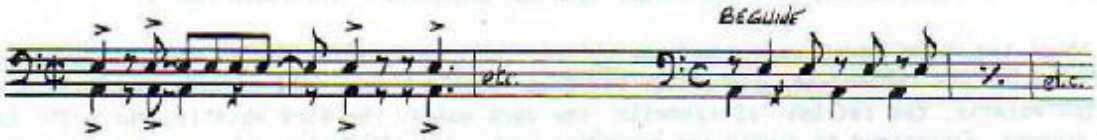


The rim shot: 

One stick is placed with the tip on the drumhead and the butt on the rim, then struck with the other stick. A percussive and biting sound results.

Further, the snares of the drum may be loosened, resulting in a "muffled" sound and a loss of the brittle quality. This is used in tangos and other situations where a "tom-tom" effect is desirable. The usual direction is simply: "Snares off".

When it is desirable to have the drums coincide with and support a rhythmic figure in the orchestra, it can be indicated:



VIII. THE LATIN AMERICAN RHYTHM ACCESSORIES

(These will not necessarily be played by the drummer, but will be distributed among available and willing members of the orchestra, as required.)

A. The Claves

Two short sticks which are struck together with one held so that the cup of the hand acts as a resonator. The clave rhythm is usually:

B. The Maracas

Two hollow gourds, with handles, filled with dried seeds or buckshot. They are shaken in an eight to the bar rhythm, as follows:

C. The Guiro

A serrated gourd, scraped with a stick or a wire, usually in an eight to the bar rhythm.

D. The Bongos

Small one-headed drums, open at the bottom. They usually come in pairs and are tuned to two different (indefinite) pitches. They are struck with the fingers and use variously accented eight in the bar rhythms, rolls, etc., as:

E. The Timbales

Large bongo drums, but played with short sticks, in a standing position.

F. The Cowbell

The orchestral cowbell has no clapper. It is affixed to the bass drum, the timbale, or held in the hand, and struck with a stick.

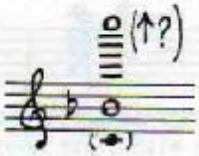
G. The Jawbone (of an ass)

The teeth are removed from the jawbone and then strung loosely back in again. The jawbone is held in one hand and struck with the other fist. The teeth rattle.

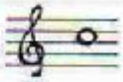
Further, there are other, more specialized, percussion instruments which can be useful. Among these are the triangle, the tambourine, castanets, the gong, temple blocks, and novelty instruments such as the wind whistle, the ratchet, sleighbells, the duck quack, the bird whistle, etc. The fully equipped drummer, accustomed to studio and recording work, will likely have these available, but the average drummer will carry only the basic equipment.

IX. THE XYLOPHONE

The xylophone is constructed of rosewood bars in graduated lengths, arranged in the manner of the black and white keys on the piano. They are made in various sizes, but the generally available range is:



It is notated, in the treble clef, an octave lower than it sounds, as:

Concert C:  As written for xylophone: 

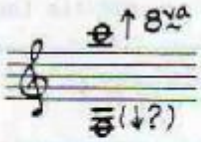
It is not lyric or expressive in character, and is incapable of sustaining a note except by means of a roll or tremolo. It is valuable for short, crisp notes, fast scale passages, arpeggios, repeated notes, glissandos, etc. Hard or soft hammers are used, usually one in each hand. But three or four hammers may be used for chords, provided they don't move quickly.

It is primarily a solo instrument and its orchestral value is limited, but it can be effectively used to emphasize short notes, and to give a percussive "edge" to a melodic line.

X. THE MARIMBA

The marimba is similar to the xylophone but has a much more bland and rich tone quality. It lacks the hard and brittle quality of the xylophone. Where instruments of this nature are used (small jazz groups, Latin-American groups, etc.) the marimba is more often used.

Like the xylophone, it may be played with hard or soft mallets, usually two, but three or four are available for chords. It comes in various sizes, but the usual range is:



It is pitched lower than the xylophone, and is written exactly where it sounds.

XI. THE VIBRAPHONE (Vibraharp, "Vibes")

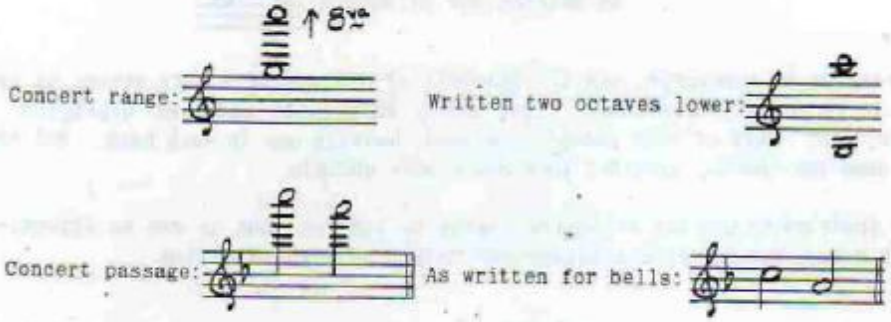
Concert range:  It is written as it sounds, in treble clef.

The bars of the vibraphone are metal and are resonated by the tubes of graduated length under each bar. It is an electronic instrument with an electric motor which revolves a small metal disc at the top of each tube, producing a pulse in the tone similar to a vibrato. The revolving speed of the discs can be varied so that the speed of the "vibrato" can be controlled. The vibrato effect can be eliminated by turning off the motor. (Direction: "Fan Off".)

Differing from the xylophone and the marimba, the vibraphone is equipped with a damper pedal which allows the player to sustain the tone. Indicate "damper off" or "ped." for sustained effects. Soft mallets are more commonly used than hard. Normally the player holds one mallet in each hand, but it is possible to play chords with three or four mallets, provided they don't move too quickly, as:

It is primarily a solo instrument and is often found in small jazz groups, but it can perform orchestrally, either in a melodic role, in combination with light woodwinds, or for sustained chords. Its characteristic "floating" tone quality can be a valuable color resource.

XII. THE ORCHESTRA BELLS (Glockenspiel, Bell-lyre)



The orchestra bells are a set of metal bars, graduated in length, usually attached in a portable case. The tone is bright, clear, ringing, and is produced with hard mallets or metal hammers. They sustain fairly well, but the tone can be stopped with the finger. It is possible to play three or four note chords on them, but they are chiefly used for melody or to outline and "point up" a melody in woodwinds, strings, or muted brass. They are effective in combination with other instruments of the percussion family, such as the piano, vibraphone, etc.

The "Bell-lyre", in which the bars are mounted on a vertical frame in the shape of a lyre, is used in marching bands. Its compass is somewhat less, and its tone is louder and somewhat rougher.

ASSIGNMENT 1

1. Study the rhythm section parts of any available arrangements, scores, stock arrangements, etc. Listen for the bass and rhythm parts on recorded music. Note how modern arrangers and players often incorporate the rhythm instruments into the fabric of the music, as well as using them for their primary rhythmic purpose.

2. Take eight bars or so of a few standard melodies, or jazz "heads". Assume them to be sung or played as a solo, or in unison, and:

   a. Write *string bass parts for them, both in "two in the bar" and "four in the bar" style, and modifications thereof. Also try a waltz or two.

   b. Add appropriate piano parts, some with chord symbols and bass line only, some with a full written part.

   c. Add appropriate guitar and drum parts.

*Whenever the term "string bass" is used in this book, it applies to the electric bass as well.

XIII. THE ACCORDION

Range: (sounds as written)

Right hand | Left hand (Free bass) | Left hand (Stradella bass)

The use of the left hand of the Stradella instrument is generally impractical for orchestral writing. The free bass instrument has wide possibilities, however, and is adaptable to any linear writing technique. Furthermore, chords of up to four notes are available (within the range of a tenth) in either hand, and chords voiced between the two hands, particularly in open voicing, are effective.

The notation of the accordion has undergone several changes in the past few years. The safest method is to space the notes on a double staff at the concert pitch which is desired. The choice of registration can be left to the performer unless the writer is familiar with the many sounds available from different registrations.

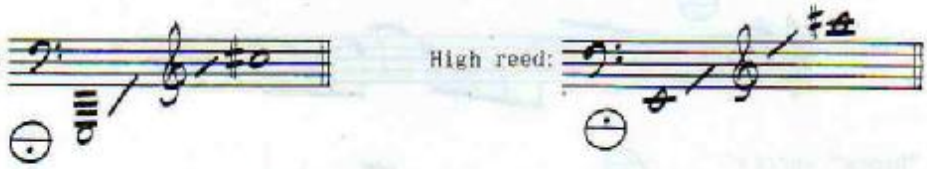
Registration:

Right hand:

Low reed: Middle reed(s): High reed:

Left hand: (Free bass)

Low reed: High reed:



(Registration of the Stradella left hand is omitted because of its impracticality.)

Reeds in combination:

The following single and combination reeds are available. The various octave couplings are demonstrated below, using "F" above middle "C" as an example note:

1 low | 1 middle | 1 high | low and middle | low and high | low middle high | low and two middles | full | middle and high | two middles | two middles and high

***Two middle reeds:**

Two or three middle reeds (or) are available (most instruments have two middle reeds only) to produce a tremolo effect. One of these reeds is tuned at standard pitch, the other slightly higher. Many performers reject this type of effect and insist on having the two reeds identically tuned. If the variation is great, or if there are three middle reeds (one tuned low, one at standard pitch, and the other high) a French Musette sound is produced. This is valuable for a French cafe sound but should be used sparingly and only when the accordion has a solo lead.

Actually, the most successful writing for accordion generally uses double reed effects very sparingly. A cleaner sound is obtained if the registers using only one, (perhaps two) reeds are used.

Amplification:

Most accordionists use instruments with amplifiers. This means that the single reed sounds can be used, and still be loud enough to be heard. The amplified single low reed or single middle reed can be used in combination with virtually any other instrument or instruments as a strengthening part, a harmony part, or for a secondary melody.

Accordion parts:

Situations where the accordion is being used as background accompaniment require only a lead sheet (chord symbols with the melody perhaps cued in). Indications such as *sustain, comp, etc.* may be given.

Nevertheless, the accordion may be integrated with other instruments with specific written parts, such as:

Single line melody:

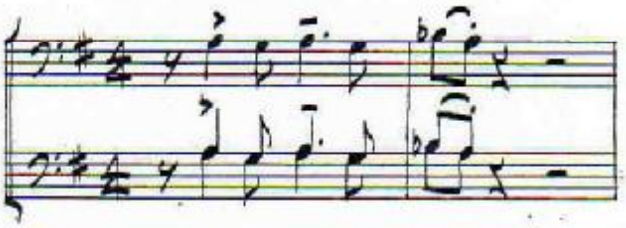
Melody with "block" chords:

Sustained chords:

Unison with other instruments:
(very effective in lower range)

Accordion right hand

Accordion left hand
plus Trombone, Tenor, etc.



In duet with other instruments:
(Accordion lead or harmony)

Accordion and Clarinet
Flute, Violin, etc.

As harmonic filler:

Trumpet
Accordion

Trombone

The versatility of the accordion, particularly the free bass model, makes it a useful instrument in many situations. It has the ability to blend well with other instruments, and can certainly make a small group of instruments sound larger.

Chapter 2

THE SAXOPHONES

INTRODUCTORY

The saxophone section is the tonal core of the modern stage band. Television and radio orchestras, which can be called the "American style orchestra", use saxophones extensively.

In general, saxophones have a full and "dense" sound and a complete section produces a substantial and rich quality. It should be noted, however, that there are varying approaches to saxophone tone. While there are different schools of thought regarding tone production on all instruments, the variance is particularly noticeable with saxophone players. It is always in the arranger's interest to determine, when possible, the approach and style of the section for which he is writing.

The saxophones display a remarkable flexibility. Past scale passages, runs, arpeggios, and leaps can be manipulated with a minimum of difficulty. Along with this, the saxophones can perform long and sustained phrases, legato passages, and remarkably percussive staccato and sforzando attacks.

The saxophones will blend and merge with all types of tone color, either winds or strings. They also have considerably less endurance problems than do the brass, and can be used more continuously, with less rest.

All of the saxophones have the same "written" range, and all are written in the treble clef. There are three sizes in general use: the E♭ alto, the B♭ tenor, and the E♭ baritone. The B♭ soprano and the B♭ bass saxophones are occasionally encountered.

I. THE E♭ ALTO

Concert range:

Written range:
(major 6th higher)

Concert C:

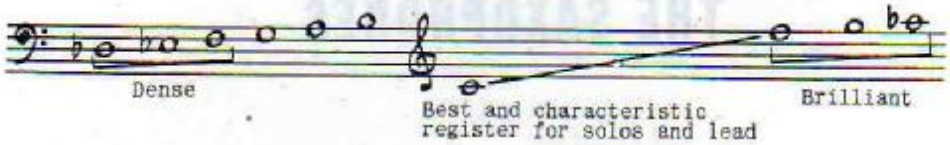
As written for E♭ alto:

Concert passage:

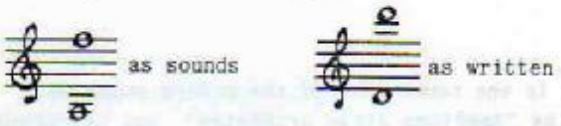
As written for E♭ alto:

The bottom third of the alto saxophone is muddy and lacks clarity. It is best if it is confined to inner harmony parts. The top third is brilliant and incisive, with an intonation problem if the performer is not efficient. Here is the overall picture:

Concert:



General playing register:



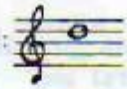
II. THE B♭ TENOR

Concert range:

Written range: (major 9th higher)

Concert C:

As written for B♭ tenor:

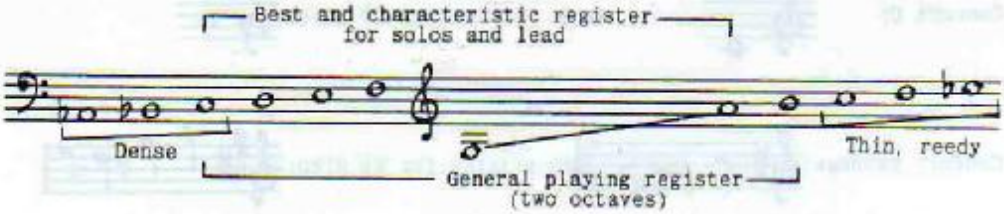


Concert passage:

As written for B♭ tenor:

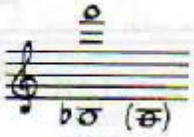
The range and register difficulties of the B♭ tenor saxophone are similar to those of the E♭ alto. The bottom third is not generally practical for solo work, since it is rather heavy, dense, and difficult to control; but a competent instrumentalist, with a good instrument, can manipulate it without undue trouble. The top third has a "strained" sound, somewhat tense and reedy. Here is the overall picture:

Concert:



III. THE E♭ BARITONE

Concert range: 

Written range: (major 13th higher) 

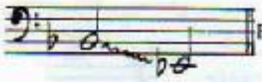
Concert C: 

As written for E♭ baritone: 

Concert passage: 

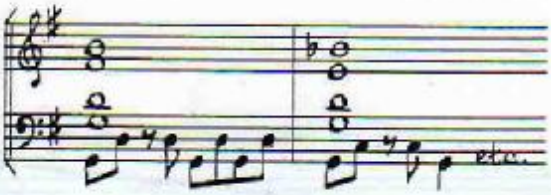
As written for E♭ baritone: 

The E♭ baritone saxophone is pitched one octave lower than the E♭ alto. It is slower speaking than either the alto or the tenor but is, nevertheless, capable of remarkable agility. Although there are many exceptions, it is not primarily a solo-instrument, but in situations such as the following it is highly effective and valuable:

Falling glissandos: 

Pedal notes: 

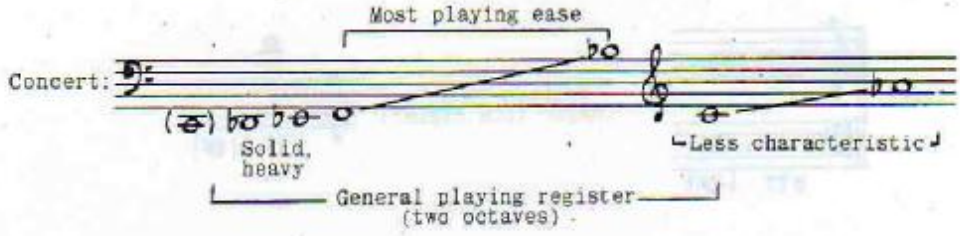
Short "fills": 

Rhythmic or melodic bass parts: 

It blends admirably with the upper saxophones but has enough individuality, character, and weight to move obliquely and independently from the section at any time.

Adequate breathing space must be provided, since the baritone requires more air and lung power than the tenor or alto.

The characteristic register of the baritone is its bottom octave and a half. The upper register tends to be thin and reedy. Here is the overall picture:

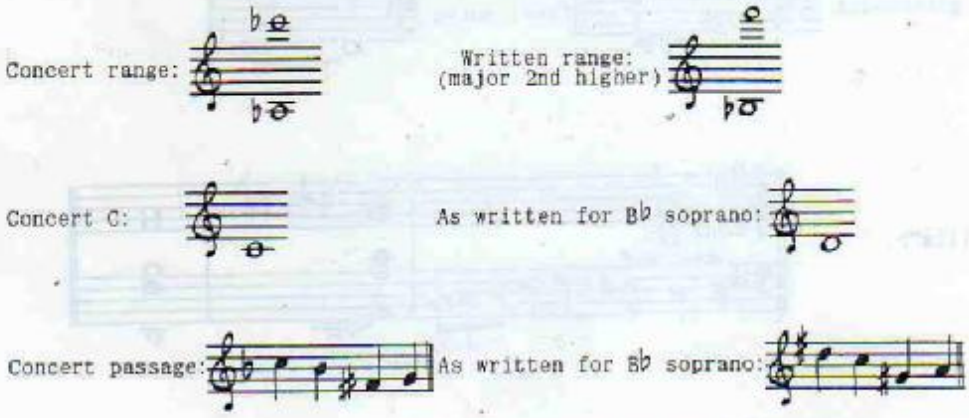


(Advice relating to the "general playing registers" is not intended to be specific. All players differ in their ability and their preferences. Furthermore, the use of *harmonics* (notes above the orthodox range) on the tenor and alto saxophones is not unusual. Nevertheless, care and caution in the use of the extreme top or bottom notes is always advisable.)

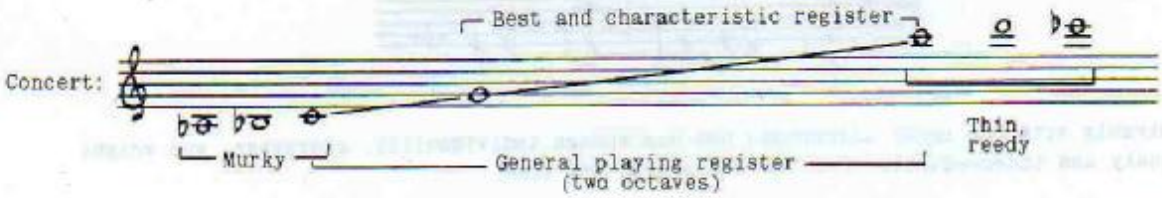
III. THE B♭ SOPRANO SAXOPHONE

This instrument is not found in the average saxophone section, but can be effectively used when available. It comes in two shapes: the "straight" model, which looks like a large metal clarinet, and the "curved" model, which is a smaller version of the regular saxophone shape.

The tone varies from a somewhat raucous FF to a soft and pure sweetness. It is a treacherous instrument to play in tune, which may account for its lack of wide popularity. It is much lighter in tone quality than the other saxophones and if it is used as lead over the section, the accompanying instruments should be marked a dynamic lower.



Here is the overall picture:



IV. THE B♭ BASS SAXOPHONE

This instrument is only occasionally available, probably because of its prohibitive size, weight, and cost. It is pitched an octave below the tenor saxophone.

Concert range:

Written range:
(two octaves and a major 2nd higher)

Concert C:

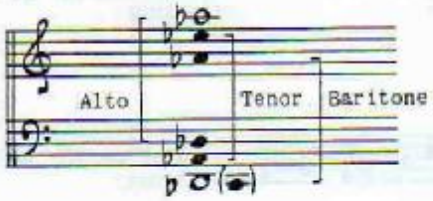
As written for B♭ bass:

Concert passage:

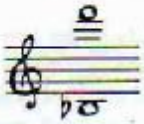
As written for B♭ bass:

Further, there are other saxophones which are: The C Melody (pitched a tone higher than the B♭ tenor), the E♭ Sopranino (pitched an octave above the E♭ alto), and the E♭ Contrabass (pitched an octave below the E♭ baritone). None of these receives any major use in this country.

Here is the combined range of the three main saxophones. Note that they provide a total section range of three octaves and a fifth:



When transposed, each is written in the treble clef, as:



Chapter 3

THE WOODWINDS

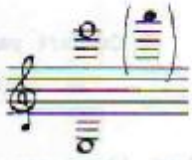
INTRODUCTORY

In the average dance or stage band, these instruments are usually played as "doubles" by one or more of the saxophone players. Consequently, top level proficiency may not always be available. In studio and recording orchestras, the proficiency can be relied on. Most saxophone players double on the ordinary soprano clarinet, but it is always in the arranger's interest to determine, when possible, what saxophone players double on what, and to determine the level of proficiency.

I. THE B♭ SOPRANO CLARINET

Concert range:

Written range (treble clef only: (major 2nd higher)



Concert C:

As written for B♭ soprano clarinet:

Concert passage:

As written for B♭ soprano clarinet:

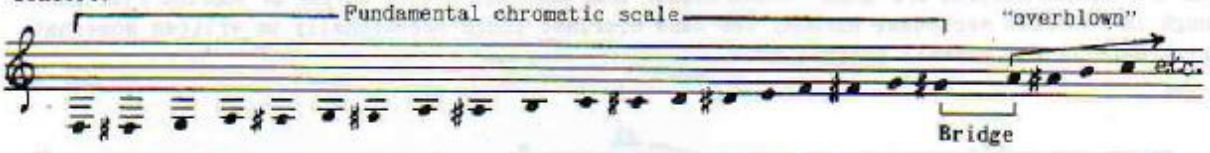
The clarinet has more technical facility than any other instrument in the "front-line" of the stage and dance band. Scale passages, chromatic runs, arpeggios, trills, tremolos, and glissandos are manipulated easily. Staccatos are available and the clarinet has an excellent sustaining power. Its wide range offers contrasts in color and mood ranging from the woody and dark shades of the *chalameau* (the lowest octave) to the *clarion-like* upper register.

A section of clarinets (which will often contain a bass clarinet) is particularly valuable for quiet backgrounds in the low and middle low registers, either in harmony or in unison.

The Bridge, or "break" on the clarinet occurs at the point the instrument is "overblown". The fundamental chromatic scale is in the lowest twelfth. The second partial is missing in the clarinet tone and as a result, the instrument is said to "overblow a 12th" (i.e., to the 3rd partial). The low D concert is "overblown" to produce the A a twelfth higher, and all successive tones upward from the A are produced by overblowing the fundamentals.

To illustrate:

Concert:

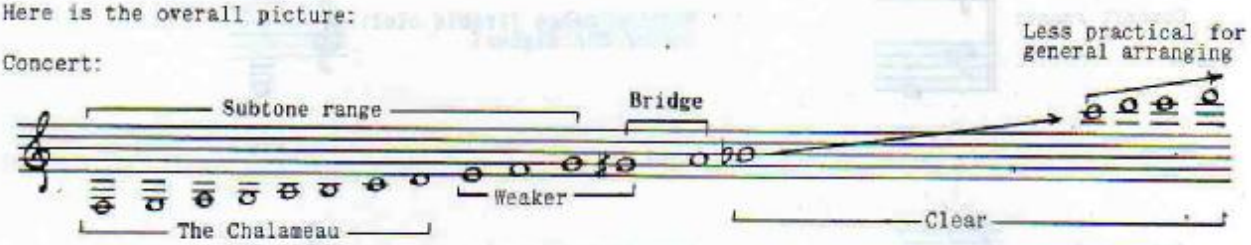


There is a marked degree of change in the tone color between the G♯ and the A, the A being noticeably clearer. Passages that move through the *bridge* require awkward fingering and present a technical problem to the performer. It is undoubtedly advisable to avoid situating a clarinet solo consistently in the area of the *bridge*, but aside from this, the *bridge* may be regarded as the player's problem.

The Subtone is the name given to an extremely soft tone which the player can produce in the chalameau register. It is not used sectionally, but is valuable for low "pretty" solos, and requires a microphone.

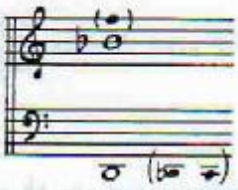
Here is the overall picture:

Concert:

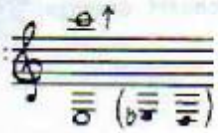


II. THE B♭ BASS CLARINET

Concert range:



Written range (treble clef): (major 9th higher)



Concert C:

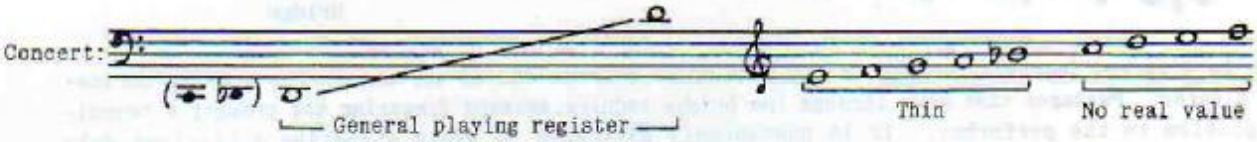
As written for bass clarinet:

Concert passage:

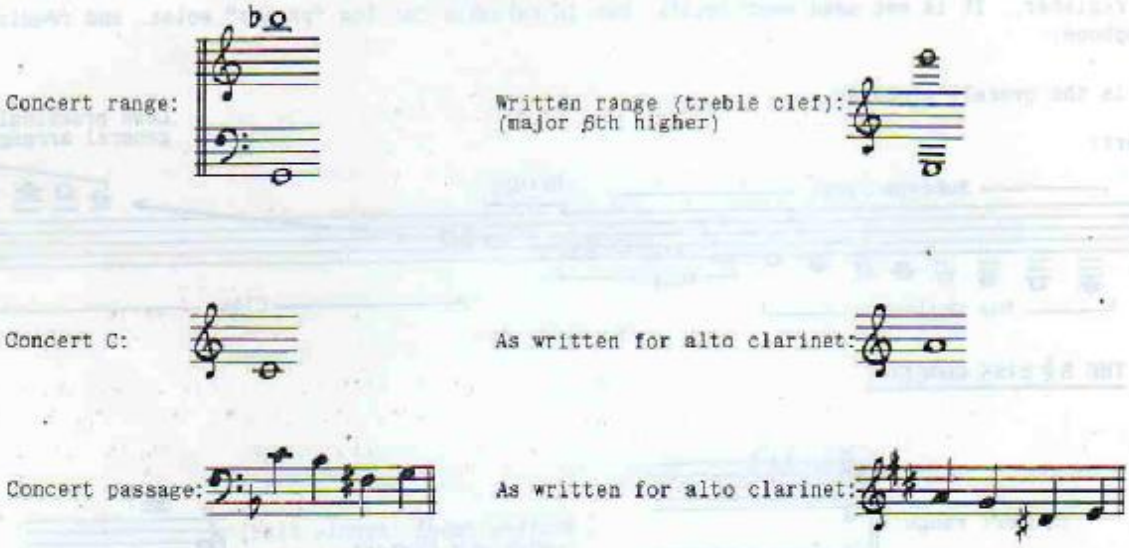
As written for bass clarinet:

The bass clarinet is pitched an octave lower than the B♭ soprano, but has somewhat less range. It has a rich and velvety tone quality in its lower register and blends well with soft trombones, horns, and certainly with any group of instruments of the woodwind family.

Its technical facility compares with that of the soprano clarinet, with due allowance for heavier fingering and for the slower response which is common to all low register instruments. In general, only the two bottom octaves are used. Notes higher than this are better on the B♭ soprano clarinet, (although in ensemble sectional harmony the bass clarinet could occasionally be written somewhat higher). Here is the overall picture:

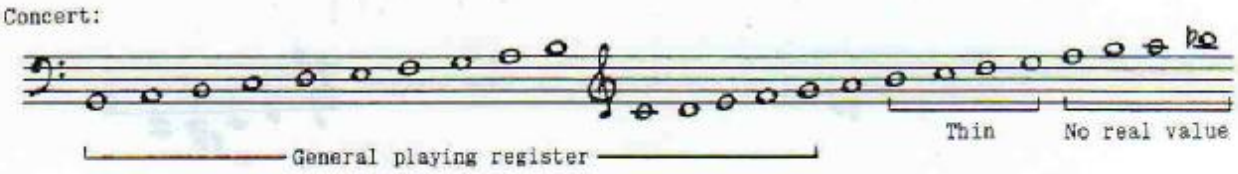


III. THE E♭ ALTO CLARINET



The range of the E♭ alto clarinet is situated between the B♭ soprano and the B♭ bass clarinets. The same may be said of its tone quality. It has some of the qualities of each and makes an admirable bridge between the two. (An ideal clarinet quartet would consist of two B♭ sopranos, an E♭ alto, and a bass clarinet.)

As with the bass clarinet, the two bottom octaves cover the most useful and characteristic region, although higher notes can be used in ensemble sectional writing. Here is the overall picture:

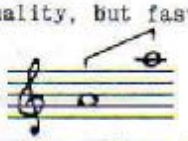


(Two other members of the clarinet family are: the A clarinet (similar in tone to the B♭ soprano) and the E♭ (high) clarinet. They are found in symphony orchestras and military bands, but have seldom been used in stage and commercial orchestras.)

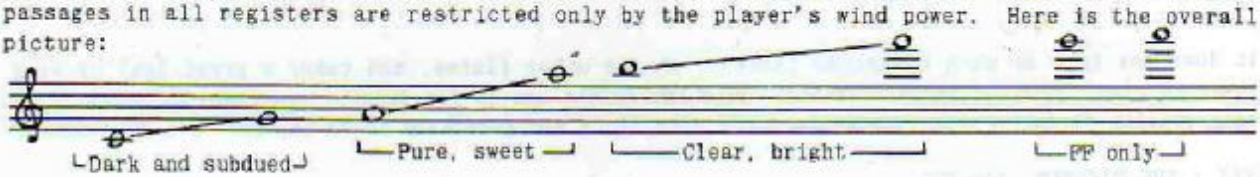
IV. THE FLUTE

Concert range:  (sounds as written)

Concert passage:  As written for flute: 

The bottom fifth of the flute:  has a warm and "breathy" quality, but fast moving passages in this region are not too clear. The octave or so above this:  is the area in which the "sweet" quality of the flute is most obvious, and slow moving solos with light accompaniment, or flute lead over light woodwinds generally sound best in this range. In the upper register the tone has a brightness and clarity which is unique and characteristic, but doesn't blend as well. The extreme top notes are not possible at a soft dynamic, as:

The flute is remarkably agile. Fast scale runs, diatonic or chromatic, slurred or tongued arpeggios, and fast repeated notes in single, double, or triple tonguing are all available. Trills, tremolo, and "flutter tonguing" are all within the instrument's capabilities, and legato and sustained passages in all registers are restricted only by the player's wind power. Here is the overall picture:



V. THE ALTO FLUTE (in G)

Concert range:  (practical)

Written range: (perfect 4th higher)  (practical)

Concert C: 

As written for alto flute: 

Concert passage: 

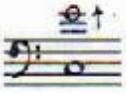
As written for alto flute: 

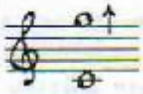
The alto flute is most effective in its lower register. Its dark, sweet tone does not project well, and generally needs the aid of a microphone, particularly if there is any substantial accompaniment. It is an effective solo instrument and a section of alto flutes can provide an excellent unison or a warm cushion of harmony.

It has much of the technical facility of the regular flute but, since it is a larger instrument, it requires more wind. In a slow, sustained passage, provide for adequate breathing space.

VI. THE BASS FLUTE

This somewhat rare instrument is built in concert, but written in the treble clef an octave higher than it sounds:

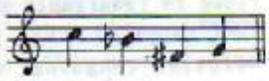
Concert range: 

Written range: (octave higher) 

Concert C: 

As written for bass flute: 

Concert passage: 

As written for bass flute: 

It does not have as much technical facility as the other flutes, and takes a great deal of wind power to play. Provide ample breathing space and do not use it for lengthy sustained passages. Its tone quality is darker and quieter than the alto flute and generally needs the aid of a microphone.

VII. THE PICCOLO (in C)

Concert range: 

Written range: (an octave lower) 

Concert C: 

As written for piccolo: 

Concert passage: 

As written for piccolo: 

The piccolo is actually a small flute, approximately half the size. The technical facility is the same as the flute, but the tone quality is much more penetrating and lacks warmth. Consequently, legato melodies are not suited to the instrument. It is at its best in the middle and top registers, with the lowest octave being of limited value.

Piccolos in E♭ and D♭ are often found in military bands. Their tone quality is similar to that of the ordinary piccolo.

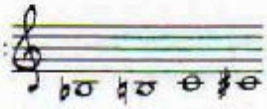
VIII. THE OBOE

Concert range:  (sounds as written)

Concert passage:  As written for oboe: 

Difficult to control, the oboe demands a high degree of breath control. It requires only a small amount of air to play and adequate rest should be provided - not to take in air, but to expel it.

The tone of the oboe is generally regarded as mystic and haunting, and it certainly can be. Nevertheless, its penetrating quality can be gay and light-hearted in the proper environment. The oboe has functioned well in small jazz groups, but it has rarely been used for improvised jazz solos. It seems rather too precise an instrument for this use.

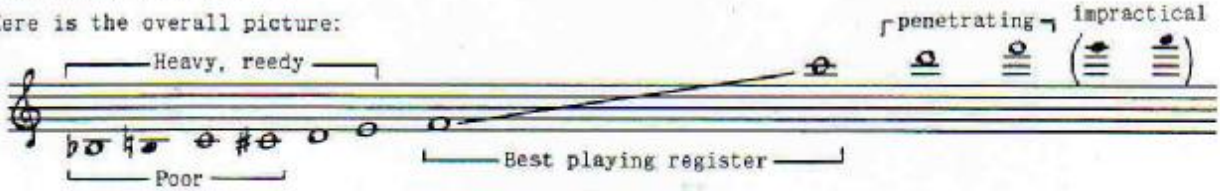
The bottom four notes:  are not too practical, since they are particularly difficult to play in tune. The bottom fifth of the instrument is reedy and exotic in sound. Perhaps the best area, particularly for solos, is the perfect 12th between F and C:

 with a bit on each end.

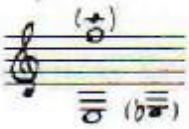
Technically, the oboe does not compare with the flute or the clarinet, but fast single tonguing is available. Fast arpeggios, etc., are not generally advisable. As a generalization, it can be said that oboe writing should be "vocal" in style, exploiting its sound rather than its technique. Sustained notes are excellent and, as a point of interest, a note can be held longer on the oboe than on any other instrument.

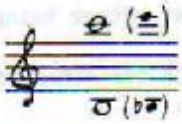
It blends well with the woodwind family, particularly the clarinets, and with brass in straight mutes. Nevertheless, it should not be used consistently in a score because its individualistic tone tends to stand out.

Here is the overall picture:



IX. THE ENGLISH HORN (in F)

Concert range: 

Written range: (perfect 5th higher) 

Concert C: 

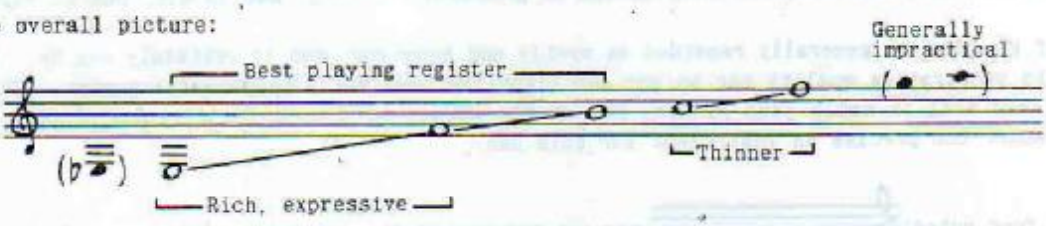
As written for English horn: 

Concert passage: 

As written for English horn: 

The English Horn is essentially a solo instrument. It bears a clear family resemblance to the oboe (although it is larger and the metal neck-pipe is bent to provide more convenience in playing) but its tone is "creamier", with an introspective and brooding quality. It has a good technical facility but, because of its greater size and lower pitch, is less agile than the oboe. The lower octave is rich, reedy, and exotic, while the upper register is less somber.

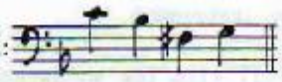
Here is the overall picture:

Concert: 

X. THE BASSOON

Concert range:  (Written as sounds)

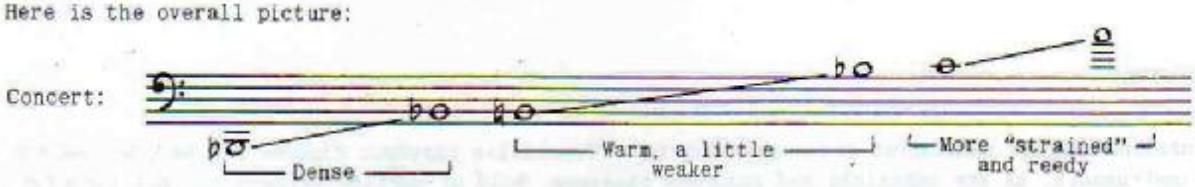
Concert passage: 

As written for bassoon: 

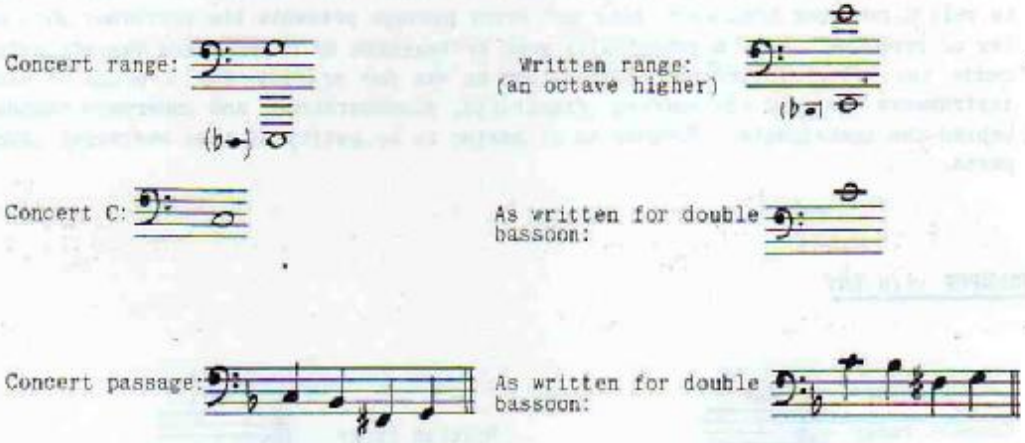
The lowest octave is heavy and somber; the middle register is warm and reedy; and the top octave is tense and somewhat "pinched". The bassoon is often used to suggest awkwardness and clumsiness, but actually it has great technical facility. Arpeggios, diatonic and chromatic scale passages, wide leaps, fast single tonguing, and a smooth legato are all readily available from the instrument.

It blends well with all instruments in its own pitch range, and mixes readily with the other members of the woodwind family, and with the brass.

Here is the overall picture:

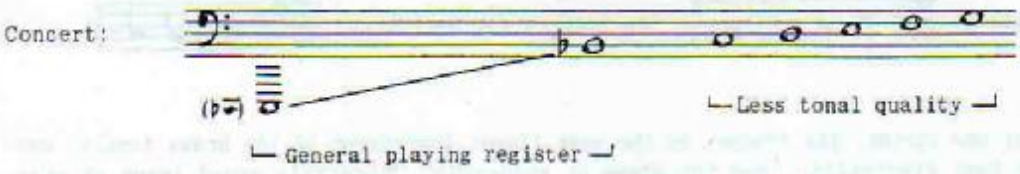


XI. THE DOUBLE BASSOON



The double bassoon is not normally a solo instrument, and is usually confined to foundation bass parts, or elaborated bass passages that aren't too fast moving. It has a dark, reedy quality that can be used at PP or FF. It is most effective in its bottom two octaves, the upper notes being superior on the ordinary bassoon.

Here is the overall picture:



Chapter 4

THE BRASS

INTRODUCTORY

The brass instruments contribute power and sonority. Percussive rhythmic figures are well suited to these instruments, as are sustained and sonorous passages, bold or martial expression, and forceful punctuation. The brass colors range from the bright trumpets down to the dark tubas. In between are the trombones, which have a high degree of fusion and an equality of power with the trumpets, and the French horns, which have a rounding effect on the overall sonority. The various mutings add further color resources.

Caution: All instruments have a *theoretical* range and *theoretical* capabilities, but in practice it is well to remember that every note and every passage presents the performer with some problem or problems. Many a potentially good arrangement or composition has met disaster because the writer failed to remember that he was not writing for a group of disembodied instruments, but for the harried, frustrated, misunderstood, and underpaid humans who sit behind the instruments. Nowhere is it easier to be guilty of this oversight than in brass parts.

I. THE TRUMPET (in B♭)

Concert range: 

Written range: (major 2nd higher) 

Concert C: 

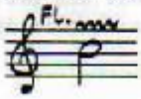
As written for B♭ trumpet: 

Concert passage: 

As written for B♭ trumpet: 

With the exception of the cornet, the trumpet is the most fluent instrument of the brass family; but it has considerably less flexibility than the saxes or woodwinds. Generally avoid leaps of more than an octave, and don't write too floridly. Slurs are easier in an upward direction on all brass instruments. Endurance is a problem for the brass instrumentalist; adequate rest must be provided.

Double and triple tonguing are available, but not often used in modern idioms, and the "flutter tongue" will produce a harsh and strident effect:



Other effects which are often used include:

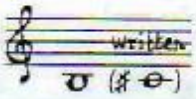
A. The "flare", which is a short glissando before a strong attack:

B. A long glissando is available from low B♭ concert upward. It is accomplished with a "half-valve" technique, and is rather difficult to execute:

C. The "dropped note", actually a downward glissando, is a valuable effect in rhythmic sectional writing:

D. "Lip trills" or "hand shakes" are possible between adjacent partial numbers. They aren't practical played softly, except by use of a mute:

E. "Fingered" trills are available, although seldom used. They are more easily executed at the half-tone:

The low concert B:  is difficult to play in tune. Try to avoid using it for unison

trumpets, unless briefly and approached by step. Notes above the top line F are difficult to play softly (unless muted) except for unusually competent performers. Generally employ the extreme high register with discretion. Save it for climaxes.

The Mutes

There are many trumpet mutes available, producing a variety of colors, and new ones appear frequently. Those that have best stood the test of time are:

A. **The Straight Mute** produces a tone that is biting and clear in the upper register and in the middle high register. Without vibrato, it has somewhat the quality of the oboe. Its use is indicated in Latin-American music, or where vitality without excess loudness is desired.

B. **The Cup Mute** produces a tone that is soft and pretty and blends well with soft reeds. It is adaptable for ballad arrangements or for soft rhythmic passages.

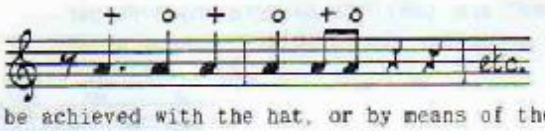
C. **The Harmon Mute** is most often used with the "stem" removed or pulled out two or three inches. It conveys an effect of "distance" and is valuable for ballads or for rhythmic figures. When used sectionally, the lead trumpet should be in the middle-high to high register. The tone is soft, but intense.

Besides these, the players may have:

D. **The Hat**, which softens the tone and gives added "density". Its use is indicated for "horn" effects, and in sustained passages with trombones, usually without vibrato (indicated "N.V." on the part).

E. **The Bucket**, which is somewhat similar to the hat, but more muffled.

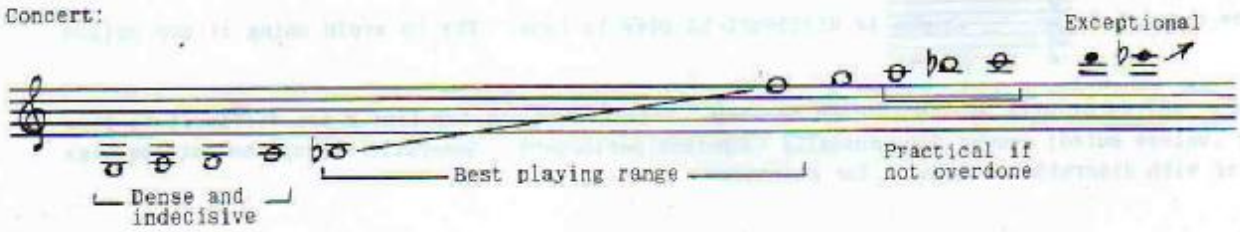
F. **The Plunger**, which is used for punctuation effects. It is indicated as follows:



(This effect can also be achieved with the hat, or by means of the hand in the bell.)

The best way to become familiar with the mutings is to persuade a trumpet player to demonstrate them, and listen for them on records. One caution: with those mutes which fit into the bell, do not (unless necessity forces it in an inner part) write a muted passage below:  Lower than this, the tone "blurs" and accurate intonation becomes difficult.

Here is the overall picture:



II. THE CORNET (B♭)

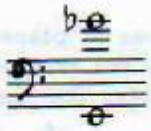
The cornet has a warmer tone and a somewhat more facile technique than the trumpet, but is not favored in large orchestras because of less brilliance. Its range, technical considerations, and mutings are the same as the trumpet.

III. THE FLUGELHORN (B♭)

This instrument almost became obsolete but has enjoyed a resurgence of interest, particularly among jazz soloists. Its technical considerations are essentially the same as those of the trumpet, except that it is more difficult to play in the higher register. Its tone is even warmer and darker than the cornet, and is effective for solos or for blending with the saxophones as well as with the other brass. Mutes are not generally used.

IV. THE B♭ TROMBONE (Tenor)

Concert range: (one octave lower than the trumpet)

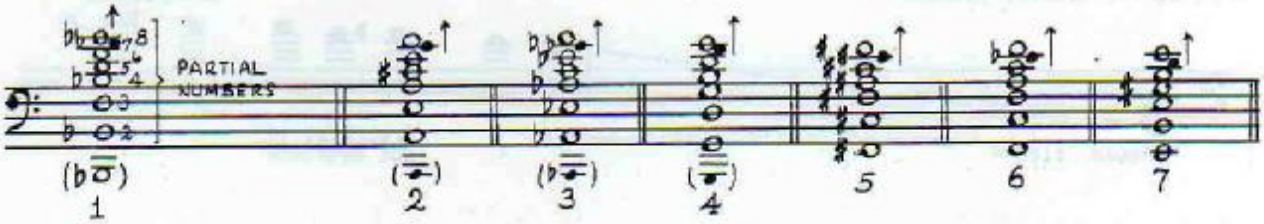


(Written as it sounds. Although it is technically in "B♭" it is treated as a "concert" instrument.)

Concert Passage:

As written for trombone:

The pitch of the trombone is varied by the use of a *slide* which lengthens or shortens the air column. With the slide in first position ("closed") the B♭ overtone series is available, descending to the E series in seventh position. Example:



Slide positions:

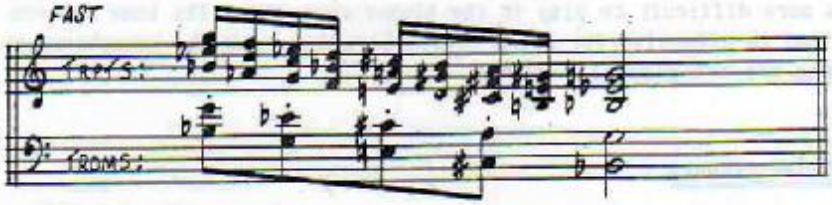
(As indicated above, the low B♭ "pedal" note is practical. Low A, A♭, and G are possible but more difficult to produce.)

Because of the slide, all quick movements involving a wide change of position should be avoided. This difficulty doesn't arise in the upper register, where there is a choice of more than one position per note, but care must be taken in the lower register. Consider the following:

Slide positions:

These, and similar movements, are impractical at a *fast tempo*.

Even aside from position difficulties, the trombone does not respond quickly in its low register. In the hands of a competent performer, the instrument is capable of remarkable agility in the *upper register*, but the agility is not comparable to that of the trumpet. It is sometimes advisable to modify the trombone parts in fast moving ensemble passages as, for instance:



Modified trombone parts

The *flare, glissando, dropped note* and *lip trill* effects can be played on the trombone, plus the *slide glissando*. This is practical between notes that are two or more positions apart, and must occur between notes that are in the same harmonic position above the fundamentals. To illustrate:

The Mutes

Straight and cup mutes are standard equipment, although the cup mute is a little "stuffy". When the trumpets are in Harmon mutes, the trombones normally use *cups*. The plunger effect (+○) is used on trombone, but the use of hats is less common.

Here is the overall picture:

Plus "Pedal Notes":

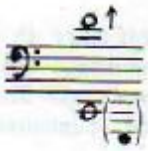
(Pedal notes should be heavy and percussive. Do not write them at PP.)

V. THE VALVE TROMBONE (B♭ Tenor)

The range of the valve trombone is exactly the same as the slide trombone. Although it enjoys some popularity with jazz soloists, the general opinion seems to be that its tonal quality is inferior and that it has more pronounced intonation difficulty. But, with due regard for its larger size and lower pitch, it has much of the technical facility of the trumpet and passages which are difficult or impossible on the slide trombone are entirely practical on the valve instrument.

VI. THE BASS TROMBONE

This instrument is of great value, and arrangers are always happy when one is available in the section. It provides an excellent bottom to the brass section, with a somewhat heavier tone than the Tenor trombone. It sounds as written:

Range: 

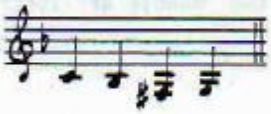
VII. THE FRENCH HORN (in F) (or just: The Horn)

Concert range: 

Written range: (perfect 5th higher) 

Concert C: 

As written for horn: 

Concert passage: 

As written for horn: 

Horn parts can be written in both the bass and treble clefs, changing as required, but it is more customary to use the *treble clef only*. Furthermore, it was often traditional practice to write horn parts without key signatures, and this is still sometimes done. Either method is acceptable.

Horn parts which "lead" well, in the tradition of vocal writing, will give the best results. The horn is one of the most difficult instruments to control. A part which flows well, and can be mentally conceived by the player, will minimize the hazards. Unusual voice leading and awkward leaps may lead to trouble.

The horn is most comfortable in its middle register. The lowest octave is not practical, particularly for agile passages, and notes in the top fourth or so are very difficult to play. The hazardous quality associated with horn playing is most evident in the treacherous character of the top notes. Therefore, use the low notes only for sustained tones and slow stepwise movement; and use the top notes only if they are approached scalewise.

All tonguings are available on the horns, although with less clarity than on the trumpet. The "sforzando - piano" is effective with one or more horns, and has an exceptionally interesting effect when muted (see below):

Mutes

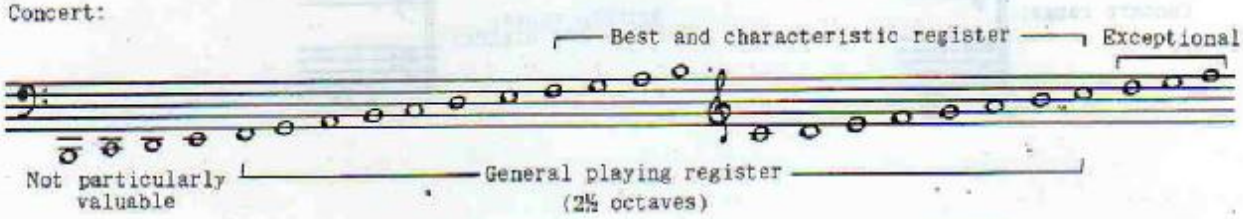
The performer can mute the horn by moving his hand into the bell, or by inserting a mute. The symbol for muting or "hand-stopping" is "+" placed over the note and "O" for re-opening. For a complete passage in mute, the term "muted" will suffice. As with all brass, mutes are not very practical in the low register.

The horn blends well with all and any of the brass family, although it does not have an equality of power with the trumpets and trombones. In a fortissimo ensemble union with trumpets and trombones, it is best to have two horns per note. If only one is available, have him double another part, since any individual note he has will be submerged by the loud trumpets and trombones.

It blends excellently with the saxophones and woodwinds and, in fact, is a standard member of "woodwind" ensembles.

Here is the overall picture:

Concert:



VIII. THE TUBA

There are E♭, F and BB♭ tubas (so called because the B♭ euphonium, pitched an octave higher, is actually also a tuba). For the sake of simplicity, only the "double B♭" instrument will be considered here.

Concert range:  (written as sounds)

The tone of the tuba is dark and melancholy, and it is capable of tremendous power at fortissimo. Because of its size and pitch, it tends to be slow-speaking but, even so, can be very flexible in the hands of a skilled player.

It is seldom a solo instrument, except for brief "fill" passages, but finds its best use as the bottom of the brass section. It can perform this role by itself or it can be combined in unison with the bass trombone or it can double the low tenor trombone an octave lower. It will also combine well with a baritone saxophone or bassoon in unison or octaves.

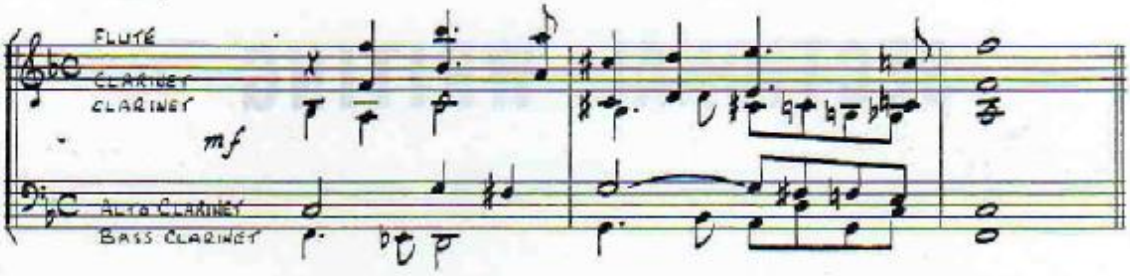
It can be used on a rhythmic bass line, in the manner of a string bass: 
This is not common practice in modern arranging, however.

The instrument has a considerably heavier tone quality than the other brass and it tends to "separate" from the ensemble if played too enthusiastically. Consequently, it is often wise to mark the part one dynamic lower than the instruments with which it is combined. Endurance and breathing, which are problems with all brass instruments, are even more acute problems with the tuba. Provide plenty of rests, and don't write lengthy sustained passages, particularly if the dynamic level is high.

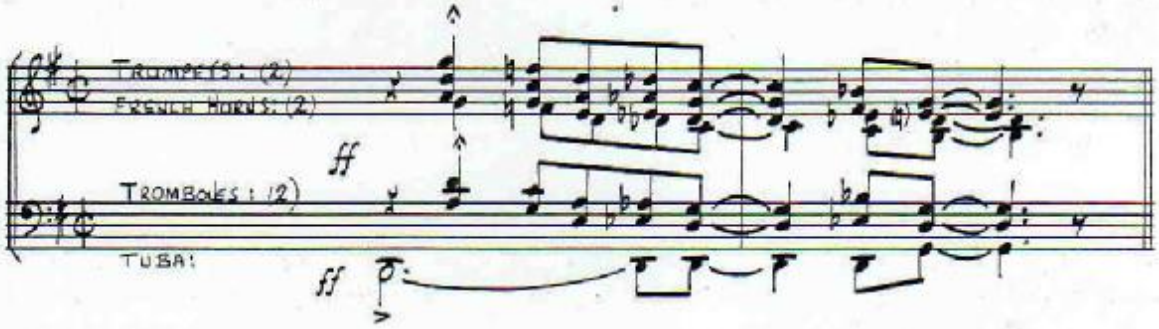
ASSIGNMENT 2

1. *Concert* passage for three saxophones in "double octaves" is given. Re-write each part in its correct transposed key:

2. *Concert* passage for woodwinds given. Re-write each part in its correct transposed key. (Flute remains as is.):



3. *Concert* passage for brass is given. Re-write each part in its correct key, transposing where necessary:



4. Examine all available arrangements and scores for the use of the instruments. When listening to recorded music, cultivate the ability to isolate aurally any instrument, group of instruments, or section.

IMPORTANT:

This book has been prepared for the student who has a groundwork in harmony and part writing, and the knowledge of these subjects will be taken for granted. It is also assumed that the student has a working knowledge of chord symbols (i.e., C^6, $F\#^7$, G^7, etc.) and can readily "spell" any chord, if given its symbol name.

PART TWO

SECTIONAL WRITING

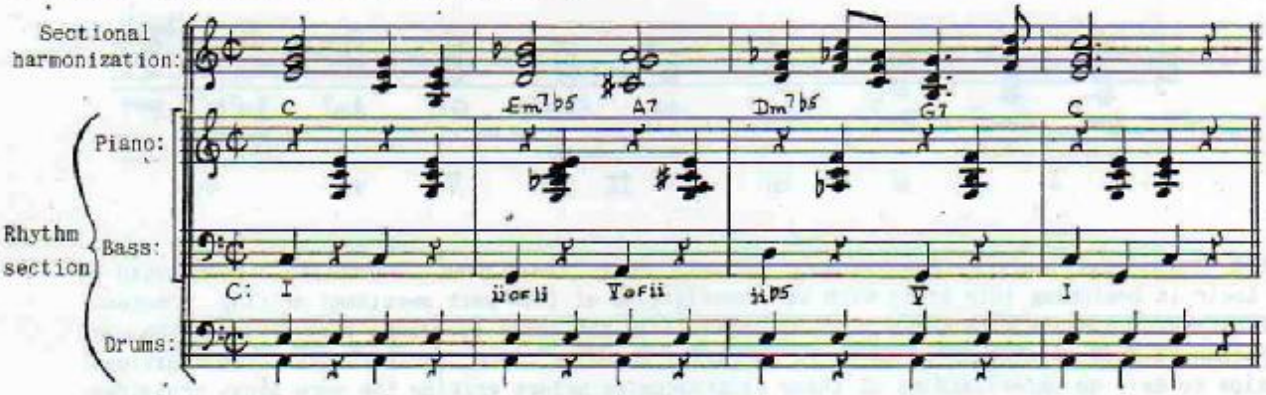
INTRODUCTORY

This area of the text aims to provide the student of harmony and arranging with the basic techniques of sectional harmonization. The term *sectional* is used to describe that type of harmonization where the melody is supported by the harmony, with a minimum of concern for the individuality of the supporting lines. This is in sharp contradiction to the principles of part writing, since the melodic logic of the supporting parts is not always a concern. Mainly, they are simply tied to the melody in fairly consistent close or open voicing and in similar rhythm. The end result is a single unit of sound (sort of a *thickened* melody) rather than a balance of individual parts. To illustrate:

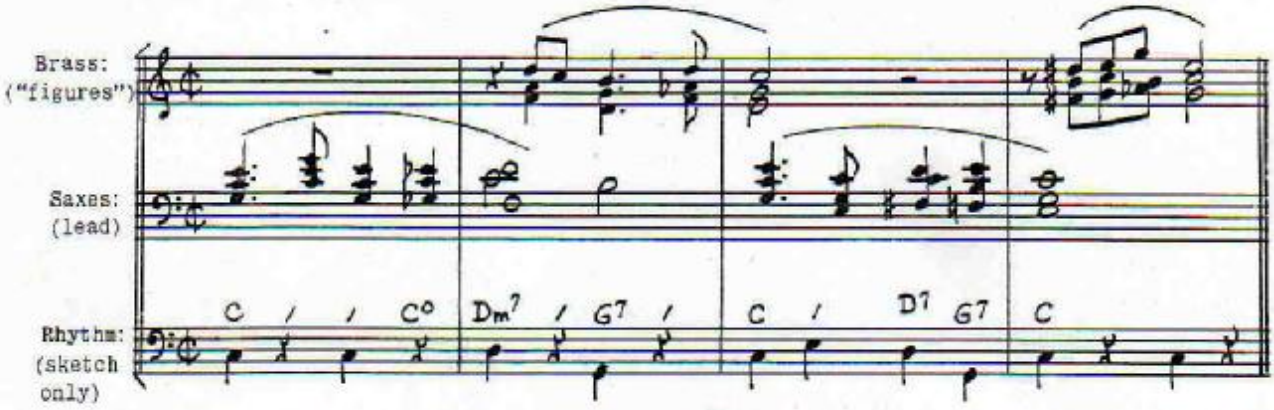
This type of harmonization is not unknown to symphonic scoring, particularly when a purely *harmonic* effect is required. Its major use, however, occurs in commercial and jazz arranging and related fields.

Although a group of instruments of varying colors can be scored *sectionally*, the technique is most adaptable with a group of instruments with similar tone quality, such as a "saxophone section", a "brass section", etc.

Sectional harmonizations are not "self-sufficient" since they do not, generally, achieve rhythmic balance. Consequently, a melody harmonized sectionally requires accompaniment of some sort, which is usually provided by a "rhythm section", as:



The conception of one section as a *unit* leads to the use of what can be called **sectional antiphony** where there are contrasting "sections" instead of contrasting lines. To illustrate:

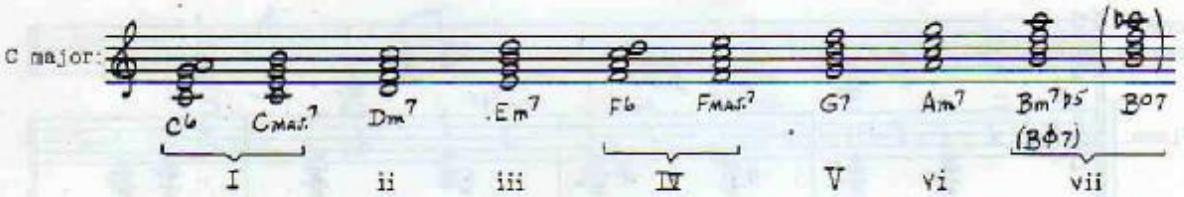


Example in a bolder use:

The student who is not yet acquainted with the ranges and capabilities of the brass, reed, and rhythm instruments should continuously investigate them in conjunction with the examination of sectional writing. (see PART I - "The Instruments") While the basic procedures of sectional harmonization are the same for any grouping of instruments, some of the techniques and solutions herein will be more suited to one section than to another. This part of the text is not concerned with "arranging" in the inventive sense, but only with sectional technique. Nevertheless, some consideration of environment and style is necessary, since any one solution may not fit every style.

The student who has investigated harmony through the medium of part writing will find no new techniques of progression herein. Sectional writing is not a different theory of harmony, but only a different use of the traditional material.

Most scoring in this idiom is done at a general four part level of harmony. That is, the triad is increased through the use of an "added note", which will usually be a minor 7th, when it is available in the scale, and a major 6th or a major 7th when the minor 7th isn't available, as:



The 9th chords, particularly the Dominant 9th, are quite freely used. Therefore, there would be some logic in beginning this study with an investigation of four part sectional writing. Instead, the first section deals with duets, even though this is the least *sectional* form, because the consideration of duet relationships is often necessary in three, four, and five part harmonizations. It helps to have an understanding of these relationships before writing the more dense groupings.

Chapter 5

TWO PART SECTIONAL HARMONY (Duet)

GENERAL REMARKS:

Two part harmonizations are employed in the following situations:

1. Where only two melodic instruments are available, such as groups containing trumpet, saxophone, rhythm section, etc.
2. For "light" harmonizations in backgrounds or at other points where weight and density are not required or desired. (Duet harmonizations are also effective for contrast in larger groups.)
3. Where the full complement of melodic instruments includes only two brass with a group of reeds, it is often advisable, when writing for the full ensemble, to keep an acceptable two part relationship between the more dominant voices of the brass.

I. THE INTERVAL RELATIONSHIP

All intervals are available. The choice often depends on:

1. TEMPO — In a slow moving passage the vertical sonorities are important.
2. STYLE — A fluid or syncopated jazz line will allow more freedom than, for instance, a simple waltz.
3. VOICE LEADING — The lack of density in two part harmony means that the harmony line can be heard horizontally. Every effort should be made to avoid illogical or awkward movement.

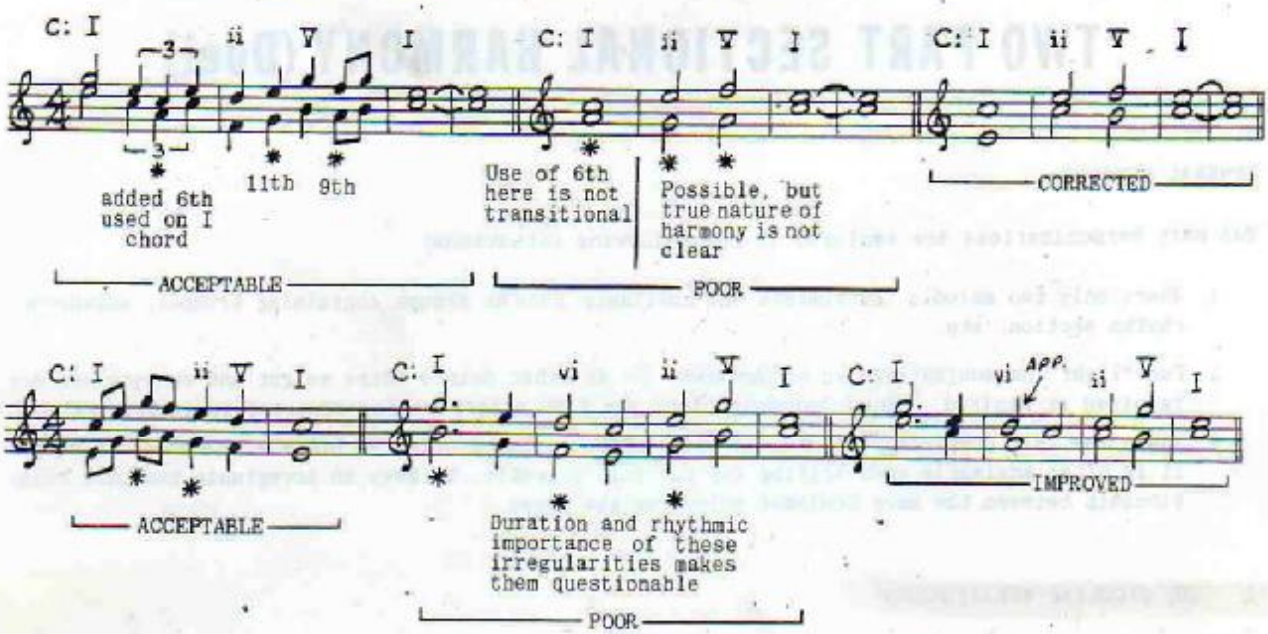
The following examination of interval relationship may be helpful.

A. The Imperfect Consonances (Major and Minor 3rds and 6ths)

The Imperfect consonances may be regarded as the basic intervals of commercial duet writing. They are free to move in parallels, and may be taken or left by leap. For the most part, when a melody can be harmonized in parallel 3rds or 6ths, this is the standard duet procedure.

Point 1. A duet may move from 3rds to 6ths, or vice versa, when necessary or desirable:

Point 2. The "added 6th" and other upper functions may sometimes be used in the accompanying part, in order to retain a consistency of parallel imperfect consonances. These should be of a transitional nature only, and are not satisfactory at points where a clear vertical chord implication is required. To illustrate:



Point 3. The original harmonic progression of a melody may be modified in order to provide better duet harmony. If a chord is omitted, added, or changed, the result must still produce a logical harmonic progression. To illustrate:

Given melody and harmony:

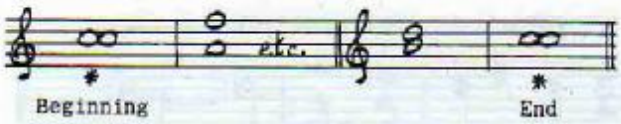
Duet harmonization:

Chord progression modified to retain environment of parallel 3rds.

B. The Perfect Consonances

1. THE PERFECT UNISON

The perfect unison results in a distinct "thinning" of the texture and is best avoided except, if desired, on the first or last note of a passage, as:



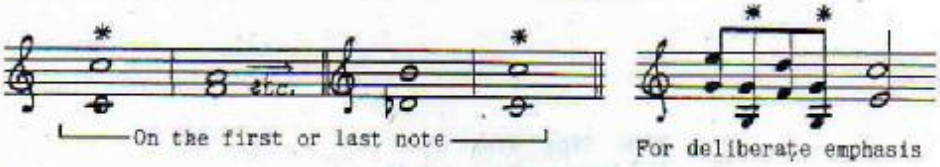
Since almost anything can be done for a calculated emphasis, it is possible to employ a unison for specific effect, as:

2. THE PERFECT OCTAVE

Octaves are normally avoided, for much the same reason as unisons, but the "thinning" effect of the octave is not as obvious as that of the unison.

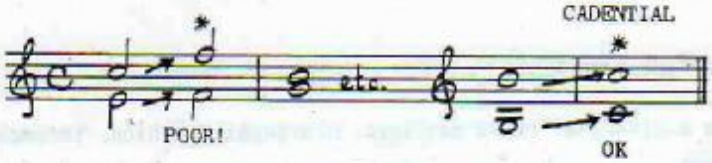
Octaves, therefore, may be used in the same manner as unisons.

Example:



They may also be used briefly, if approached in contrary motion, as:

Hidden Octaves (i.e., octaves approached in similar motion) should NOT be used except at cadential points or for deliberate emphasis, as:



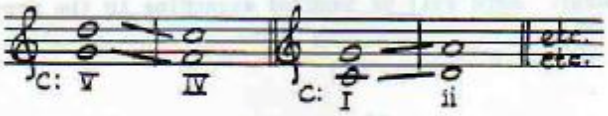
3. THE PERFECT 5TH

In conforming environments (which includes most commercial arranging), the perfect 5th is not a normal duet interval, even though it is a consonance. Its hollow and strong sound is not readily assimilated into an environment which deals primarily in imperfect consonances. Nevertheless, it may be acceptable in the following circumstances:

a. In contrary motion:

b. The traditional "Horn 5th", which accommodates a passing-tone between two positions of the triad:

Parallel 5ths are unacceptable when they involve the root and perfect 5th of the chords, as:



They are acceptable, however, if one or both of the notes of the second 5th is a 7th, 9th, or any other *non-chordal* note:

4. THE PERFECT 4TH

The perfect 4th is regarded as a dissonance in duet. See below.

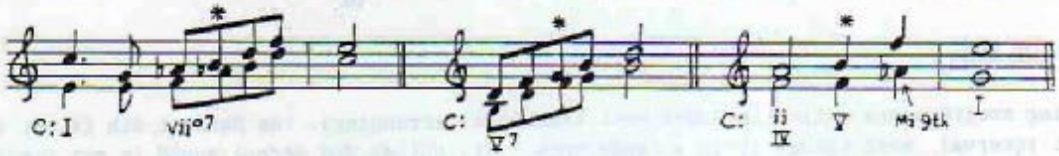
C. **The Dissonances**

2nds, 7ths, 9ths
All augmented intervals
All diminished intervals
The perfect 4th (in duet)

A full cataloguing of the dissonant intervals with their traditional resolutions may be found in the book "MODERN HARMONIC TECHNIQUE", or any standard text on theory and harmony, and a knowledge of these resolutions will be assumed. It is sufficient to remark that when the duet contains a harmonically dissonant note or interval of the chord, the best results will be obtained when it is accurately resolved, according to its demands, when the chord changes. The following incidental points should be noted, however:

1. CHANGE OF POSITION OF DISSONANT CHORDS

Dissonances contained in a dissonant chord may leap, in arpeggio fashion, through the chord, as:



2. CHANGE OF POSITION OF CONSONANT TRIAD (concerning the perfect 4th)

The perfect 4th may sometimes be acceptable in arpeggio movement through a major or minor triad, as:

but at a slower tempo, where movement of the second part is not an important factor, a different solution might be better, as:

D. **The Inharmonics (non-chordal tones)**

All inharmonics can and will occur. Each will be handled according to the procedures applicable to its type.

1. THE ACCENTED INHARMONICS (appoggiaturas, suspensions, retardations)

a. In slow moving passages where the accented inharmonic has expressive *vertical* significance, it is best accompanied with chordal tones in the harmony part, as:

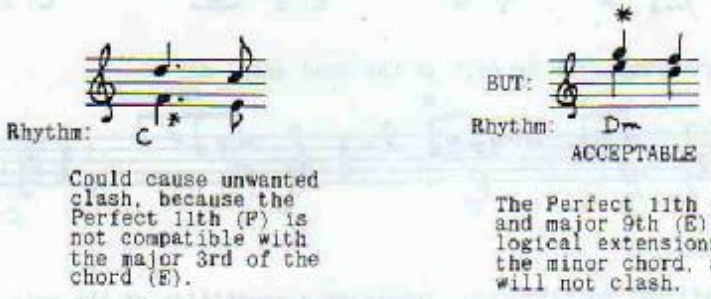
This is usually preferable to the use of similar inharmonics in the supporting part, as:

because doing so has the effect of:

1. Destroying the melodic beauty of the dissonant appoggiatura in the melody.

2. Causing some confusion with the accompanying rhythm section, which will be playing the basic chords.

In this respect, it is worth noting that appoggiaturas which are logical harmonic extensions of the chord will not interfere with the basic progression played by the rhythm section. To illustrate:



b. On the other hand, if the movement is fast and the appoggiaturas of only an eighth note or less, the use of combined appoggiaturas may be *desirable*, as:

Here the use of the combined appoggiaturas helps the flow of movement. The appoggiaturas in the melody are more *rhythmic* than *expressive* and the use of accompanying appoggiaturas in the harmony part keeps the passage more rhythmic and *sectional*.

Due to the brevity of the appoggiaturas (they resolve within the beat), the rhythm section can play the basic progression.

2. THE UNACCENTED INHARMONICS (passing tones, auxiliaries, auxiliary derivatives, anticipations)

a. Passing Tones

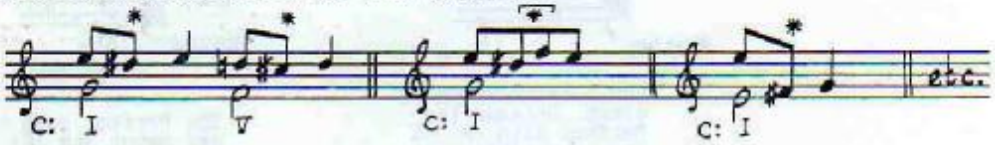
For the most sectional effect, the passing tones in the melody will be accompanied with similar passing tones in the harmony part, as:

However, the passing tones may sometimes be left in the lead only. This results in a less *sectional* style, but not necessarily a less desirable one:

b. Auxiliary Tones (and derivatives)

Again, the most sectional effect will be gained with similar auxiliaries in the supporting part, as:

The auxiliaries can also be left in the lead only, as:

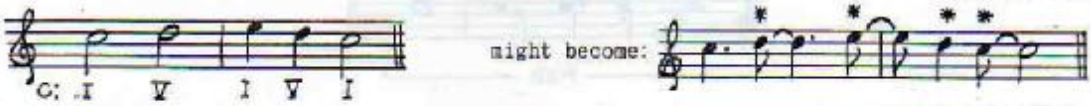


c. Anticipations

1. The traditional anticipation, involving a repetition of the note, is a *melodic* anticipation. It may be accompanied with a similar anticipation in the harmony part, as:

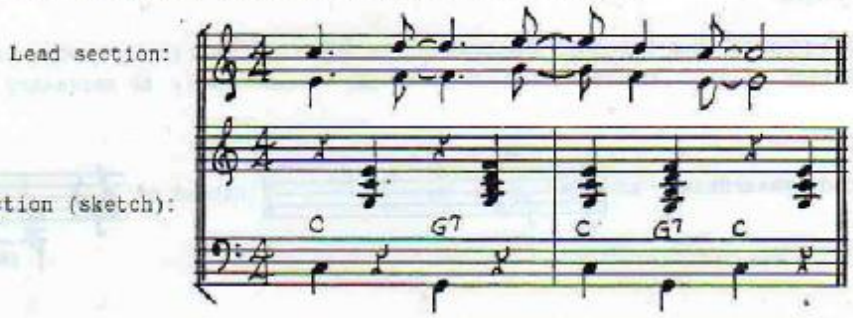
In addition, it may occur in the lead only, as:

2. The "Rhythmic Anticipation" is a device of *syncopation* which is investigated under "Variation and Interpretation". It is only necessary to remark here that rhythmic anticipations are used for a more driving rhythmic effect, as:

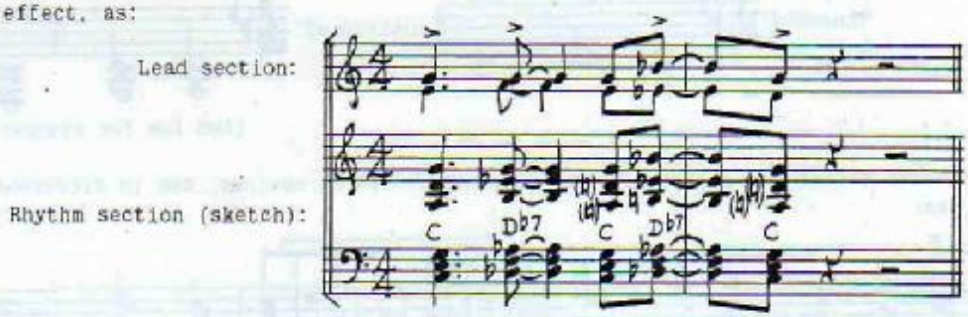


When syncopation such as this is used in the lead, it is *almost invariably accompanied with similar syncopation in the supporting harmony part or parts*, as:

The rhythm section usually continues to play on the beat, as:



Sometimes it is desirable to have the full orchestra in syncopation for an emphatic effect, as:



d. Decorative Resolutions

Notes of a purely decorative character, particularly if quick-moving, are often left to the lead part alone, as:

E. **Distance Between Parts**

The safe maximum distance between duet parts is a 10th, as:

More than this may occasionally be acceptable and necessary, but will run the risk of loss of fusion.

1. CONGESTION

Avoid it, as:

2. OVERLAPPING PARTS

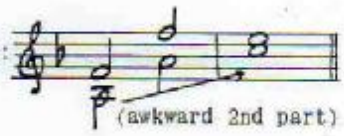
Overlapping is a threat to the melodic independence of the lower part; but a sectional duet is *harmony* and NOT *counterpoint*, so that overlapping is not a serious flaw:

3. CROSSING PARTS

Crossing parts in duet in a harmonic environment is NOT wise, particularly when the lines are both of the same tone color. The crossing of parts may *occasionally* be necessary or desirable, as follows:

a. To avoid awkwardness, as:

instead of:



b. For range considerations, as:

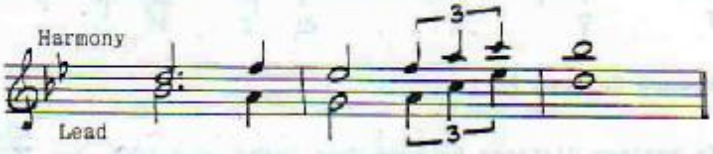
Trumpets:

instead of:

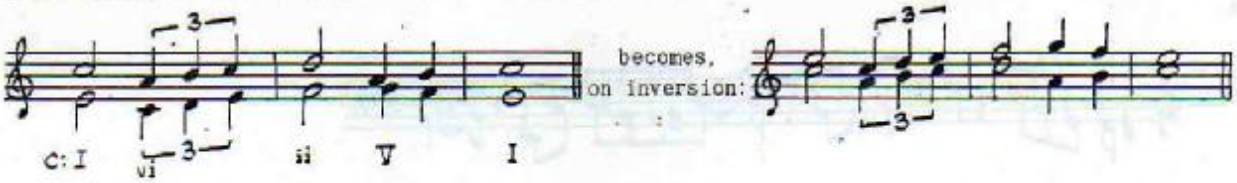
c. For a special effect, in which case the crossing should be obvious, and in different tone colors, as:

4. HARMONY PART ABOVE THE MELODY

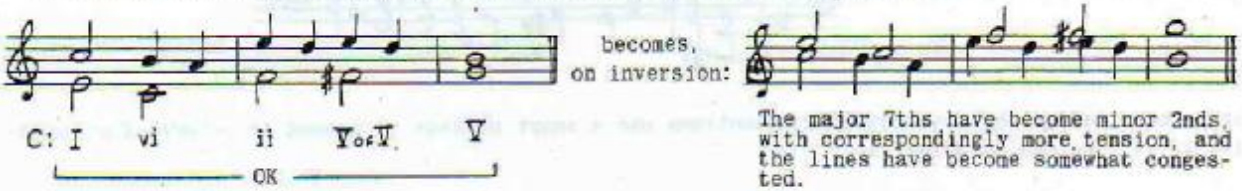
The placing of the harmony part consistently above the melody is not unusual. As a rule, the higher part is the most audible and this type of voicing is employed only when the upper harmony part is of less weight and carrying power than that of the lead. A clarinet above a trumpet is an example of such a case. All of the considerations relevant to duet harmony remain the same. To illustrate:



Worth mentioning is the fact that much duet harmony can be *inverted*, as:



In some cases, trouble can arise from too much tension or congestion, as:



The major 7ths have become minor 2nds, with correspondingly more tension, and the lines have become somewhat congested.

Problems may also result from the perfect 5th, which becomes a dissonant perfect 4th on inversion, as:

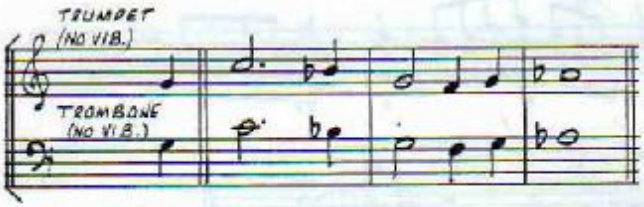
Consonant Dissonant!

Therefore, if a melody and harmony is to be inverted for some reason, make sure that it is capable of inversion, or make the necessary adjustments in the uninverted harmonization.

F. Use of Consistent Unison or Octaves

The use of *consistent* parallel unison or parallel octaves for two instruments is quite acceptable, and very often preferable to a harmonic duet. Assuming accurate intonation, two instruments in octaves can often be a "bigger" sound than duet harmony, particularly if one or both of the instruments is rich in lower partials as is a trombone, bass clarinet, French horn, tenor and baritone saxophone and, to some extent, the alto saxophone. For example:

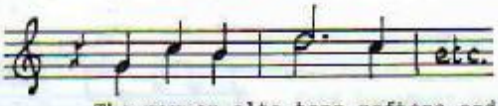
This:



is a "richer" sound than:

The unison is not as rich in sound as the octave, but warm shades and interesting effects can be obtained through the combining of tone colors, such as:

Trumpet
Alto Saxophone



The warmer alto tone softens and enriches the trumpet sound.

Unisons or octaves very often offer a better solution than harmony for a mobile and rhythmic line, as:

This:

is more mobile and rhythmic than:

Furthermore, a duet harmonization may sometimes use a short passage of unison or octaves for emphasis, if it fits the phrasing, as:

(If this sort of thing is overdone, a "patchwork" quality will result. Careful calculation is in order.)

G. Use of Consistent Parallel 5ths or Parallel 4ths

A duet in parallel perfect 5ths or 4ths may be written for specific effect. Since this is a marked departure from the normal, it would necessarily have to be consistent through at least the length of a phrase. Because of the fusion of perfect 5ths (and to a lesser degree perfect 4ths), they can make an interesting change from parallel octaves or unisons in fast moving and fluid passages where parallel 3rds or 6ths could possibly slow the movement a little. However, since nearly all tonal harmony and chord progression is based on the supremacy of the imperfect consonances, an attempt to use consistent parallel 5ths or 4ths may require a more free use of upper functions, and perhaps occasional modifications of the harmony or melody.

Examples:

In 4ths:

In 5ths:

Cadential adjustment
to traditional harmony

Note:

Oriental effects are often produced with parallel 4ths, usually Pentatonic, as:

H. The Melodic Quality of the Second Part

In the introductory comments to this area, it was remarked that duet writing is the least *sectional* harmony. The reason is obvious. The thin texture of duet harmony means that the second part, even when it is rhythmically identical to the lead, can be heard as an individual line. Therefore, even though the aim of duet harmony is NOT independence of line, it is essential to give consideration to the *melodic logic* of the harmony part. It doesn't have to be a "melody" in the full sense of the word, but it should meet the following standards:

1. The line should be controlled and logical. Avoid awkwardness. Consider:

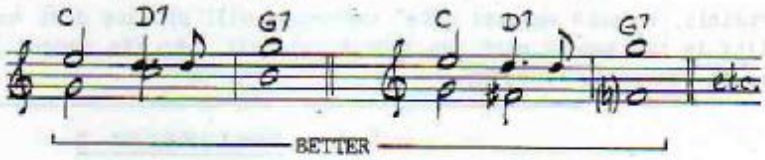
Second part is awkward and illogical

Possible correction:

The A♭ isn't used because it naturally leads to an undesirable G in the next bar

2. *Melodic dissonance* (i.e., altered tones) should receive a treatment that doesn't unduly upset the horizontal "scale relationship" of the line, as:

Possible corrections:



There may be exceptional cases, however, where it is desirable for a dissonant tone in the harmony part to resolve (by *transference*) in the lead, as:

Here, if the C augmented chord is to be felt in the duet, there is no other solution. The following solution, for instance, is more horizontally accurate, but doesn't contain the color of the augmented chord:

Nevertheless, accurate voice leading remains a requisite, and any variance to it is exceptional and must have a strong justification. In four and five part sectional harmony, *transference* is standard practice but it should not be standard practice in duet writing.

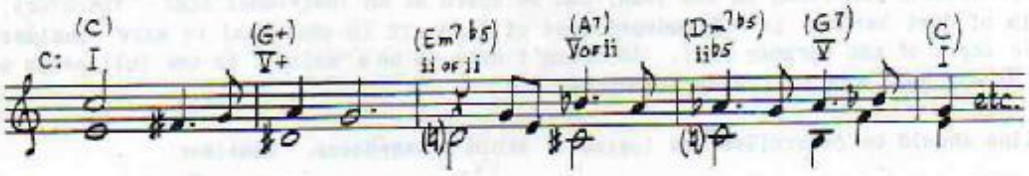
3. Avoid too many repeated notes in the line, particularly if they are repeated from *weak* to *strong*, at a fast tempo, as:

Not bad — Can be awkward to articulate with clarity

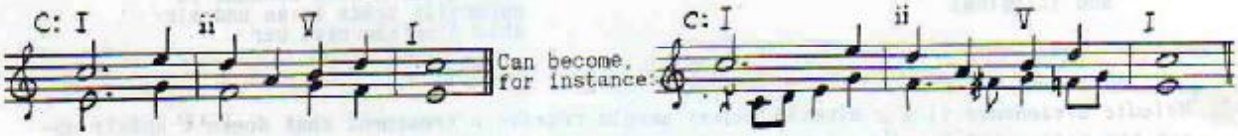
OK (not as rapid)

I. The Obbligato Type Harmony Part

Occasionally, the harmonic progression of a melody will suggest an obvious chromatic line of an *obbligato* nature. This line may sometimes be used as a second part, as:



This type of line is not strictly *harmonic*. The second part is more independent of the lead, and becomes *contrapuntal*. While techniques of this sort are not properly a concern of "sectional harmony", there is no harm in noting how a judicious use of oblique motion, conflicting attacks, and applied inharmonics can transform a purely *harmonic* passage into a contrapuntal texture, as:

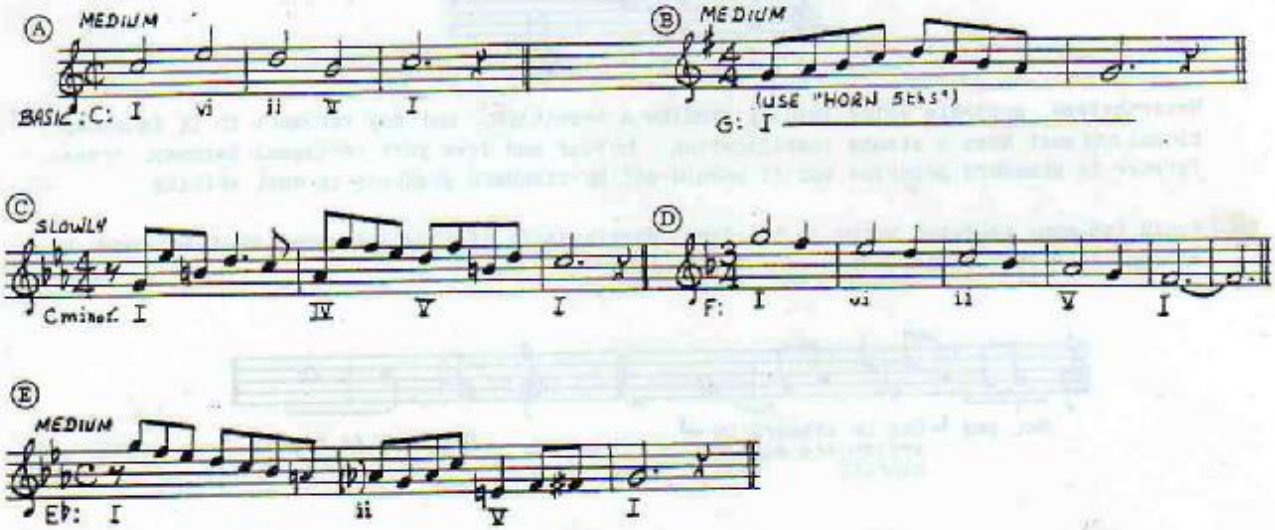


Certainly, a "note against note" technique will produce duet *harmony*, but a little bit of individuality in the second part can inject interest into the second line without necessarily losing the overall "harmonic" feeling.

ASSIGNMENT 3

Note: The exercise material given for two, three, four, and five part sectional harmony is designed to give the student experience in handling all of the inharmonics (non-chordal notes) as well as the chord notes. Consequently, each exercise is short, and focuses on some particular problem or problems.

1. Lead lines are given. Harmonize each in *sectional* duet, plus string bass part and chord symbols.



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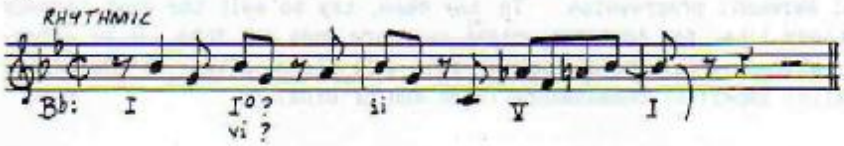


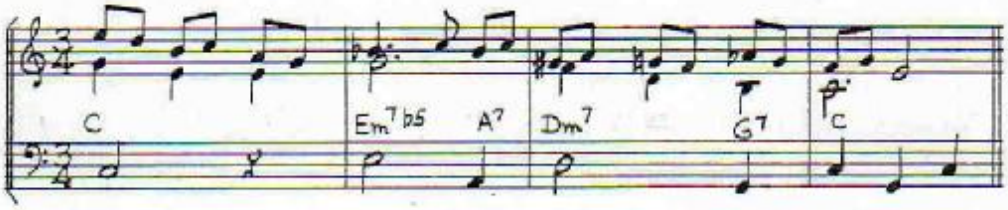
NOTE: It is often wise and revealing to "reduce" a florid line to its "essential" notes for a clearer view. To illustrate:

This:

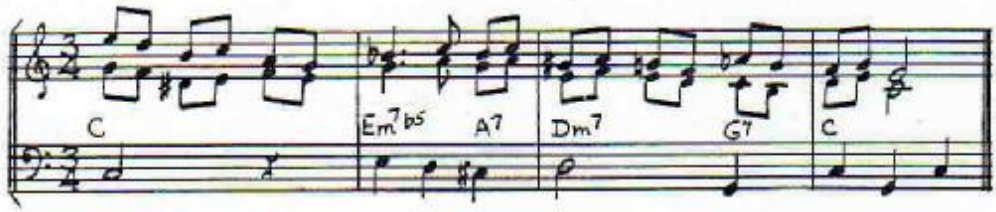
"reduces" to this:

Duet line harmonizes basic chordal tones in melody.

and can be restored to this:



or this:



Full "note for note" sectional harmony

2. Take one sentence (usually eight bars) of five or six melodies with differing styles and tempos, and harmonize each for sectional duet, with string bass part and chord symbols. Do some with specific instruments in mind, as two clarinets, trumpet and alto, unison trumpets and unison trombones, etc., etc.

It will quickly be seen that composers do not necessarily write melodies so that they can be comfortably harmonized for duet. Ideal duet harmonization may not always be possible, even with slight changes in the original harmonic progression. In any case, try to suit the duet harmony to the style of the melody. A jazz line, for instance, might use more 2nds and 7ths, or be effective in parallel 4ths or 5ths; whereas a commercial popular song will almost always be preferable with a *general* feeling of parallel imperfect consonances (3rds and/or 6ths).

SEE SAMPLE SOLUTIONS

Chapter 6

THREE PART SECTIONAL HARMONY

GENERAL REMARKS

Sections of three instruments, such as three brass, three saxophones, etc., are frequently found in commercial orchestras. So-called "stock" arrangements use the "three way section" as their basis, with an added fourth part, and arrangements done for show acts, etc. are generally scored for basic sections as follows:

Three saxophones (two altos and tenor)

Three brass (two trumpets and trombone)

Three violins (optional)

Rhythm section

Consequently, the ability to handle three part sections well is an important part of an arranger's technique.

Since a three part section allows the use of chords rather than intervals, the harmonic density of three part writing exceeds that of a duet. Therefore, the individual lines of the harmony parts are less audible, and logical voice leading is somewhat less important in three part sectional harmony than it is in two part.

I. THE VERTICAL CONSIDERATIONS

A. CLOSE versus OPEN voicing

Close voicing is more often used than open voicing, but the choice is often a matter of the style and the context. The differences are:

Close voicing

1. Compact
2. More density and blend
3. Individuality of supporting lines less audible

Therefore:

Close voicing is more suitable for faster tempos and rhythmic phrasing (syncopation). When the performance is less proficient, close voicing will sound better than open. "Stock" arrangements use close voicing more often than not.

Open voicing

1. More spread
2. Less density and blend
3. Supporting lines more audible

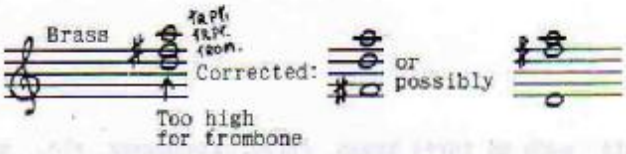
Therefore:

Open voicing is more suitable for slower tempos and where rhythmic phrasing is not a major factor. It requires more attention to voice leading, and better performance.

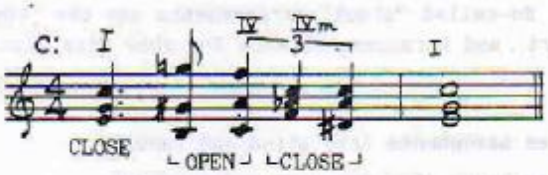
Open voicing may be any grouping of the notes of the chord which covers more than an octave. It is generally achieved by transposing the second part of the close voicing down an octave, as:

Whatever form of voicing is used *will normally be retained throughout the passage.* Cases may arise, however, where the movement from close to open, or vice versa, will be necessary or desirable, such as:

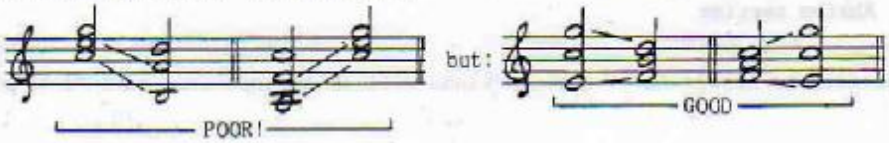
1. Range considerations:



2. The interests of voice leading:



A change from open to close, and vice versa, should occur *only where leaps in the lead allow such changes to be made logically.* To illustrate:



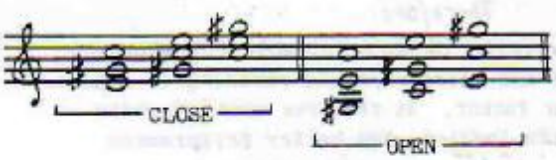
B. Basic Three Part Chord Structures

The following examples, with comments, indicate only the basic structures of three part voicing. *Any attempt to catalogue voicings from a purely vertical point of view can only be a rough guide! Music is motion and, in practice, the effectiveness of any voicing can only be judged in relation to what precedes and what follows!*

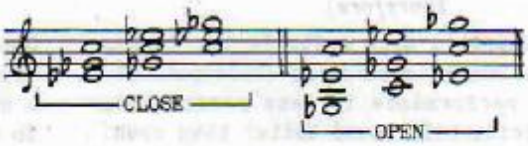
1. MAJOR AND MINOR TRIADS

*Could be dangerous as a FINAL, particularly if the bottom voice has any individuality.

2. AUGMENTED TRIADS:



3. DIMINISHED TRIADS:

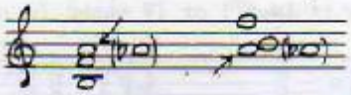


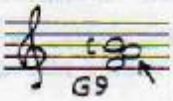
4. MINOR 7TH CHORDS: (ii and vi in major, etc.) (7th omitted in some voicings)

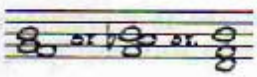
5. DOMINANT STRUCTURE CHORDS:

The "characteristic" interval of the dominant chord, secondary dominants, etc., is the **tritone** (Major 3rd and Minor 7th). Consequently, most voicings of such chords contain these notes, as:

Further, the 9th (and the Minor 9th, when suitable) is quite freely used in dominant structures, as:



It can usually be regarded as a *substitute* for the root. Generally avoid "crowding" the melody with it, however. For instance this: 

would be better as: 

C. Vertical Relationships in Motion

Some texts suggest that the outside parts in a three part sectional passage should form a perfect duet. This is sound advice, if it isn't taken literally. For instance this: 

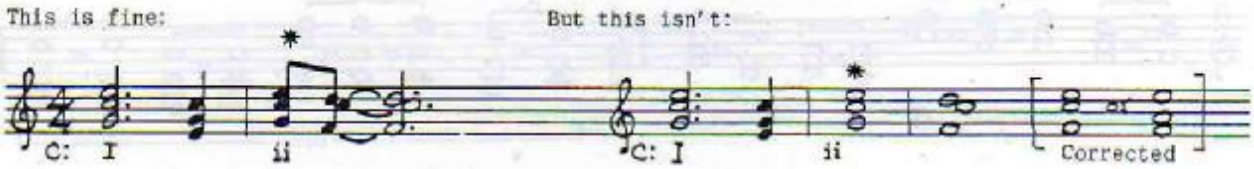
is obviously a logical chord, but the outside parts don't form a good duet. Even though the advice is not practical as a consistent law, the relation between the outside parts, particularly in close voicing, is important, and when these outside parts can move in parallel 6ths the result will be pleasing. Some liberties with the chordal notes may be taken (just as they are in duet) to gain parallel 6ths. To illustrate:

obviously necessary here.

Compare the smooth and flowing sound of the above, which uses 6ths between the outside parts (at the expense occasionally, of a more conforming "vertical" chord), with the following, which is more accurate vertically but doesn't move as well:

Duration is, of course, an important consideration. If any structure *lasts long enough to register on the ear as a* VERTICAL *chord, the vertical consideration must be foremost.* To illustrate:

This is fine: But this isn't:

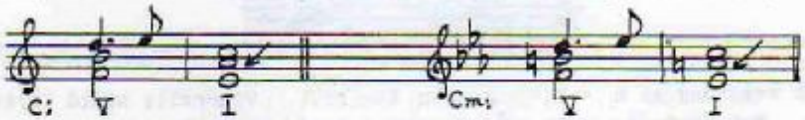


So: The importance of the *vertical* decreases with the increase of speed.

SUSTAINED	MOBILE
PASSIVE	FLUID
LONGER DURATION	QUICK MOVING
VERTICAL IMPORTANCE	**HORIZONTAL IMPORTANCE**

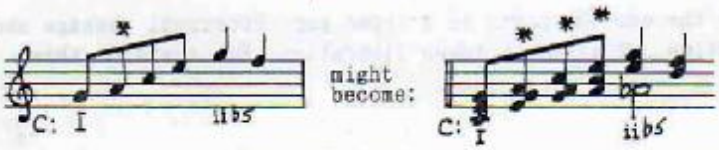
D. Regarding the "Added 6th"

The "added 6th" may sometimes be used in a I or IV chord in major or in a I, iii, or vi chord in minor, as:



When used in a situation where it is heard *vertically*, as above, it is rather weak and ambiguous. There is more justification for its use in a mobile passage, as:

or where it is used arpeggio-wise, with a Pentatonic flavor, in the melody, as:

This: 

might become:

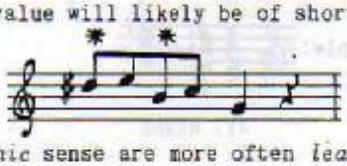
The use of the "added 6th" is not uncommon in popular melodies, sometimes with a Pentatonic flavor and sometimes simply for its feeling of ambiguity.

E. Vertical Support of the Melodic Inharmonics

1. THE ACCENTED INHARMONICS (Appoggiaturas, suspensions, retardations)

It is important to differentiate between accented inharmonics which are used for their expressive value and those which are used for their rhythmic value. In the case of those used for their expressive value, they will be of significant duration, as:

Those used for their rhythmic value will likely be of short duration, such as:



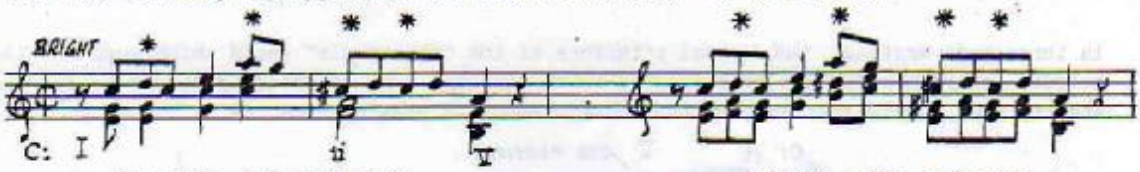
(Appoggiaturas used in a *rhythmic* sense are more often *leading* appoggiaturas, half a tone UNDER the chord note.)

When the appoggiatura is performing an expressive melodic function, it is wise to either *retain or heighten its dissonance*. Avoid using combined appoggiaturas which place the lead appoggiatura in a consonant relationship with the supporting parts. To illustrate:

Possible, but the lead appoggiatura has become consonant and has lost the dissonance which is the real attraction of the accented inharmonics.

Much better! The expressive dissonance of the lead appoggiatura has been retained or heightened.

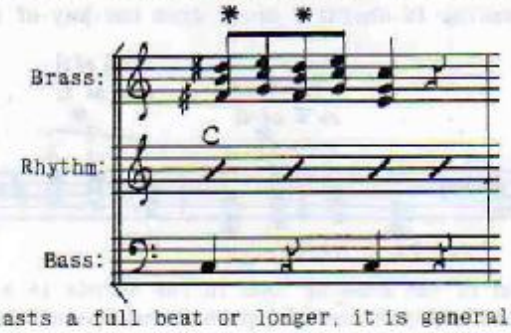
However, if the appoggiatura is short, and performing an obvious *rhythmic* function only, the use of combined "leading" appoggiaturas is usually suitable. To illustrate:



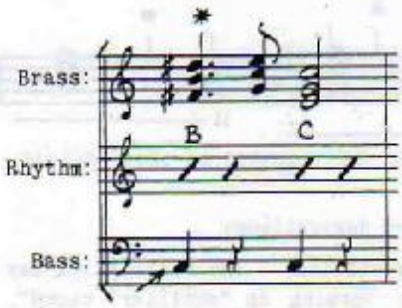
Possible, but lacks the sectional rhythmic "drive" that the passage seems to require.

Better. More sectional, forceful, and rhythmic.

Accented inharmonics which *resolve on the same beat* will NOT affect the rhythm section, as:



If the appoggiatura chord lasts a full beat or longer, it is generally wise to adjust the rhythm section accordingly, as:



*Root not affected here, since the only note which clashes with it is the major 7th, an extension which is all right simultaneously with the root.

Example:

All Right

2. THE UNACCENTED INHARMONICS

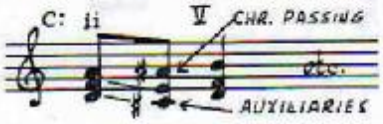
a. Passing Tones

A passing tone or tones in the melody may be supported with a "passing chord", or may be left merely as melodic movement. The decision depends on the context. If the passing tone occurs in a rhythmic passage, it is usually better to use movement in the supporting parts, thereby creating a passing chord, as:

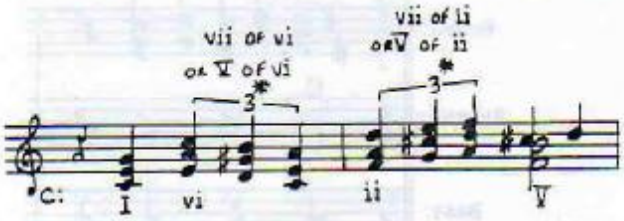
Possible, but lacks the sectional cohesion that the passage seems to require.

Better. More unified and sectional.

In three part writing, the actual structure of the "inharmonic" chord which supports the melodic inharmonic depends primarily on voice leading. It is entirely possible, for instance, that auxiliaries may be required to support a passing tone, as:



Passing tones between notes of the triad may often be accompanied with "Passing vii chords", "Passing V chords", "Passing IV chords", etc., from the key of the basic chord ("Internal tonicization"), as:

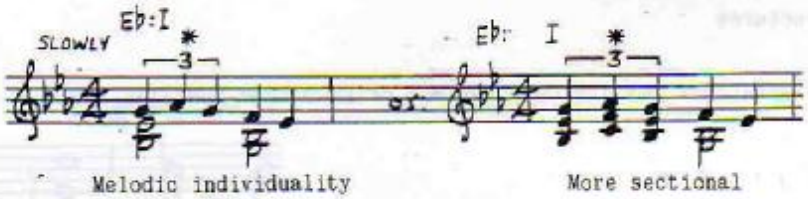


However, if the duration of the passing tone in the melody is a full beat or more, and its use is more sedate than in the previous examples, it may possibly be left in the lead only, as:

Less "sectional", but quite suited to this context.

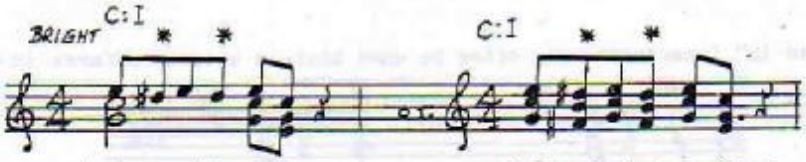
b. Auxiliary Tones (and Auxiliary derivatives)

Here again, there are two possibilities. The auxiliaries may be accompanied with auxiliaries in the supporting parts, forming an "auxiliary chord", or they may be left in the lead only. To illustrate:



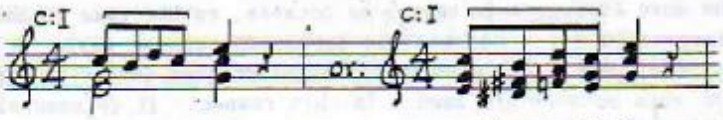
Melodic individuality — More sectional

At a slow tempo, both are acceptable

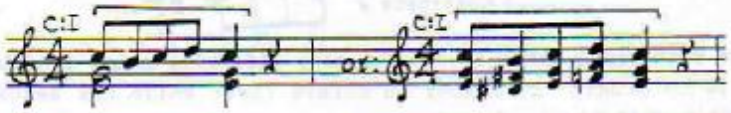


Lacks sectional force and rhythm, which the phrase requires. — Better! More unified and rhythmic.

Good — All Right, but a little congested.



Acceptable — More unified and rhythmic



Acceptable — More unified and rhythmic

3. DECORATIVE RESOLUTIONS

Canbiatas, Échappeés, and other purely decorative notes are often effective when left to the melody only, but "note against note" sectional movement is acceptable. To illustrate:

F. **Incomplete Structures**

Voice leading considerations may indicate the use of an octave doubling, as:

This is allowable provided the doubled note is an acceptable double, and provided it is not overdone.

G. **Use of Occasional Octaves, Unisons, and Duets**

A "pick-up" or "lead-in" (anacrusis) may often be used best in unison, octaves, or even in duet, as:

An off-beat or weak beat note, resulting from an abrupt "dip" in the melody, may be written in unison to avoid awkward leaping, as:

H. **Use of Consistent Unison, Octaves, or Duet**

In many cases a line may be more effective in unison or octaves, rather than in harmony, either for arranging color or for better mobility. No specific directions can be given, since the decision rests on matters of context and taste. There is no technical problem involved, other than the correct distribution of weight when octaves are used. In this respect, it is generally wise to place the greater "weight" on the bottom, as:

The use of a *duet* texture with three parts is often a very effective means of gaining "lightness". The standard procedure is to double the melody an octave lower while the second part provides a correct duet relationship with the lead, as:

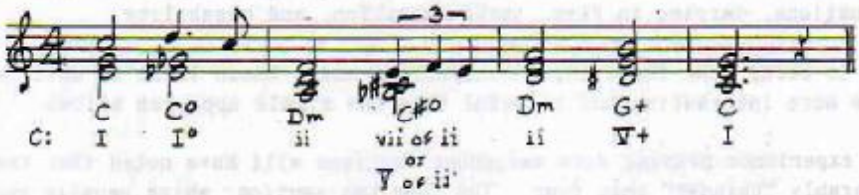
Further, brief passages of unison, octave, or duet may be incorporated into a three part passage for emphasis or color, as:

II. THE HORIZONTAL CONSIDERATIONS

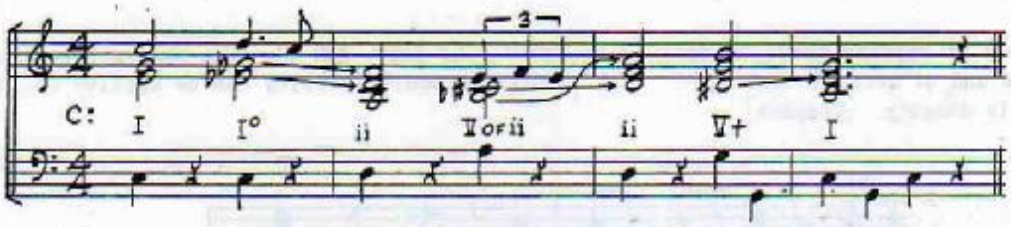
In sectional harmonization, *the importance of clear voice leading in the supporting parts decreases as the vertical structures increase in parts and density.* Consequently, the voice leading of the supporting parts in three part sectional harmony is less important than it is in two part.

When irregular voice leading is necessary, however, it is better to confine it to the inner part when possible, as:

There will undoubtedly be occasions (usually because of leaps in the melody) when both supporting parts have to be treated rather casually, as:



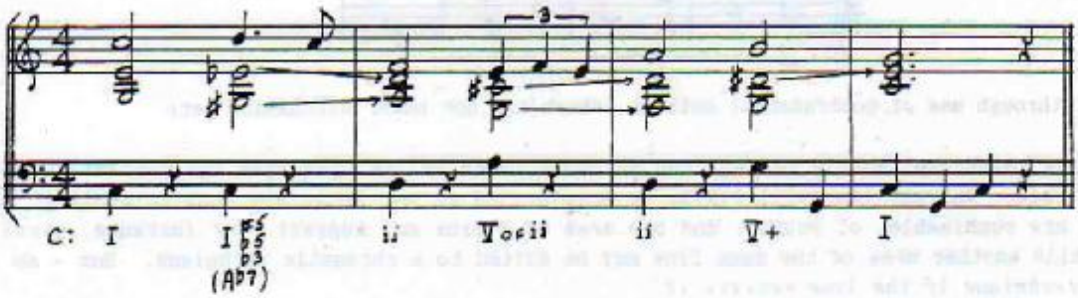
The student will note, in instances such as the above, that *dissonance in one part is resolved in a different part.* This process is called **transference**:



So, as stated earlier, sectional harmony is not a different theory of progression, but simply a more free application of traditional materials.

The above example retains consistent close voicing, which is usual in this idiom, and it IS an acceptable solution in the style of "stock" three part sectional harmony.

The following solution gives precedence to voice leading, with the harmony changing from open to close, and vice versa, according to the *melodic* demands of the supporting parts. The result is less unified and is more allied to the principles of "part writing", but it is still "sectional" and the musical effect (with proper performance) may be more satisfying:



Addendum

Instruments of similar timbre are more likely to produce sectional fusion than instruments of contrasting tone color. Therefore, illogical voice leading in the supporting parts is less likely to cause trouble in a section of three saxophones, than it is in a section of a flute, oboe, and clarinet, where the tone colors do not blend into one sound as readily. Another reminder: Illogical voice leading will always come off better in close voicing.

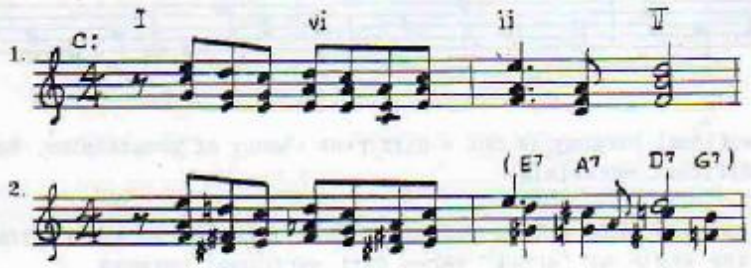
III. SOME ADDITIONAL TECHNIQUES

The student is advised to investigate examples of three part sectional writing in "combo-ork" books and other available printed material. Examples of this type are intended to be basic and simple and provide illustration of the fundamental technique. They are scored so that they can be used by a variety of combinations, varying in size, instrumentation, and capability.

However, when work is being done for a *known* combination and a *known* level of ability, the three part writing may be more interesting and colorful than the simple approach allows.

Anyone who has had experience playing with saxophone sections will have noted that three man sections sound considerably "thinner" than four. The four man section, which usually uses four part structures, has much more density than three. The lack of this density in a three part section allows less sectional fusion and force, and what is commonly called "blend" in the section is harder to attain.

There is no way of voicing three saxophones to sound like four, but through the judicious use of wider voicings and of certain techniques, contrapuntal harmonic activity can be applied to replace the unavailable density. Compare:



The second example, while not much more dense *vertically*, has a richer texture and more harmonic interest. However, the second example uses more of a "part writing" technique and, as a result, requires better performance. The type of writing used in the second example is adaptable only where the melody is fluid and moving. A line such as the following, for instance, would NOT be adaptable:

except through use of contrapuntal methods, which are not under discussion here.

The following techniques should be regarded as tools to be called upon when the context suggests and allows them. Any one line will likely be more suited to one technique than to another. The techniques are combinable, of course, and one area of a line may suggest, for instance, parallel harmony, while another area of the same line may be suited to a chromatic technique. But - *do not force any technique if the line resists it!*

In most of the following procedures, the basic harmony is treated as **Organ Point.** The relationship of the harmony to the basic chord can best be re-affirmed at strong beats, points of emphasis, chords of longer duration, etc.

A. Use of Leading Chords Built from Auxiliaries, Unprepared Auxiliaries, Passing Tones, Appoggiaturas, etc.

This is a "voice leading" technique which makes extensive use of "chromatic leading-tones". The chromatic structures which result may be:

CLASS A - *Conforming* (i.e., recognizable standard chord types)

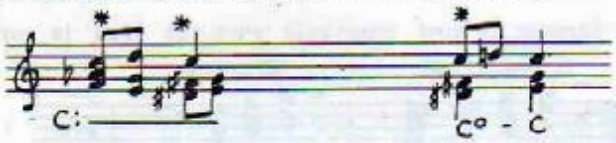
CLASS B - *Enharmonically Conforming* (i.e., chords which would be normal chord types in a different notation)

CLASS C - *Non-Conforming* (i.e., structures which are not standard chord types)

To illustrate:

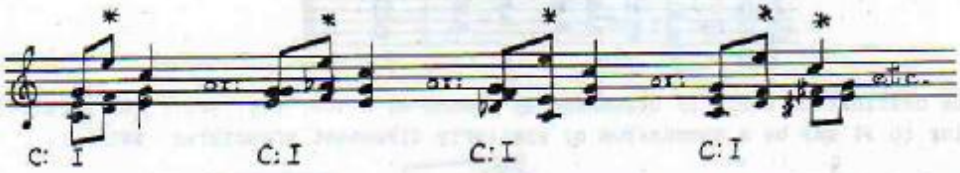
The leading chords will most often be of *eighth note value or less,* and will most often be *unaccented,* as:

The use of short rhythmic appoggiatura groupings is also possible, as:



Because of full beat duration, the rhythm section should be advised!

Here, for examination, are some short passages employing "leading chords":



Since this technique is based on <u>voice leading</u>, the aim must always be logical part movement and resolution!

A *possible hazard* is too much "softening" of the outline of the harmony through excessive use of chromatic half tone intervals.

B. Parallel Harmony

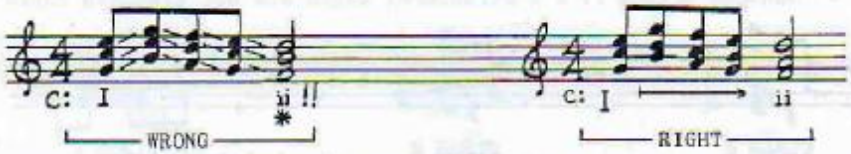
1. DIATONIC PARALLEL HARMONY

Procedure: The supporting parts move parallel to the lead, through the diatonic scale. The result is a sustained impression of the scale type. To illustrate:

Considerations:

a. The technique is available only when the melody is diatonic.

b. The parallel harmony should be calculated TO a pre-determined destination point, and not necessarily FROM the starting point. To illustrate:



In this example, the parallel movement is calculated FROM the first chord, resulting in a destination point which is not intended!

Here the parallel movement starts AFTER the first chord, and is calculated to arrive at the intended destination.

If the parallel harmony can be *both* TO and FROM, all the better, as:

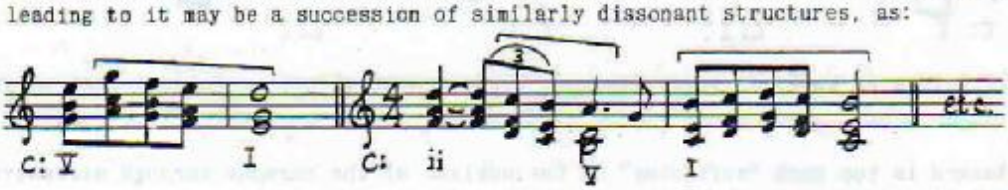
c. Diatonic parallel harmony is most adaptable when the lead is moving in diatonic scale *steps*, as:

It seems less effective when leaps are involved, as:

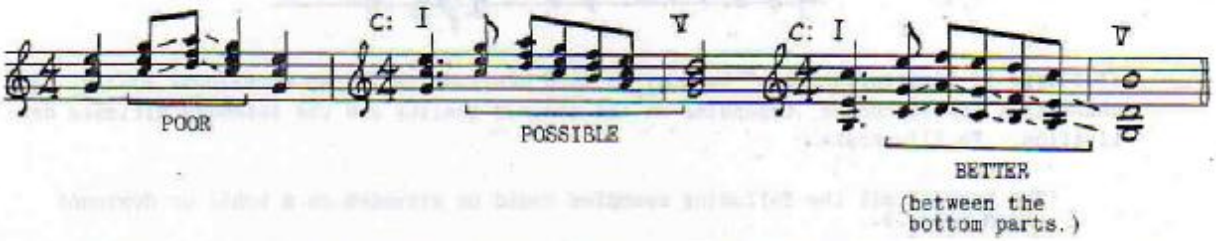
All Right, but less effective.

d. An occasional irregularity in the inner part will not necessarily destroy the overall effect, as:

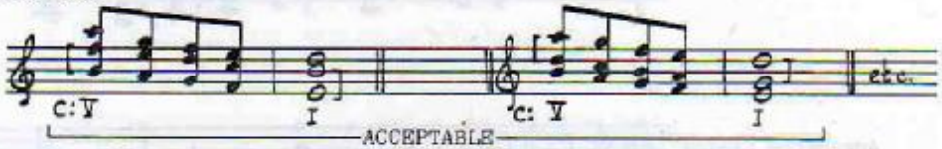
e. If the destination chord is dissonant by reason of a 7th, 9th, etc., the parallel harmony leading to it may be a succession of similarly dissonant structures, as:



f. Parallel perfect 5ths which involve the root and the 5th of the triad are often crude sounding, and not especially desirable. If they are necessary, try to use enough of them so that they become "stylistic" (i.e., clearly intended). They will be better between the two bottom parts. To illustrate:

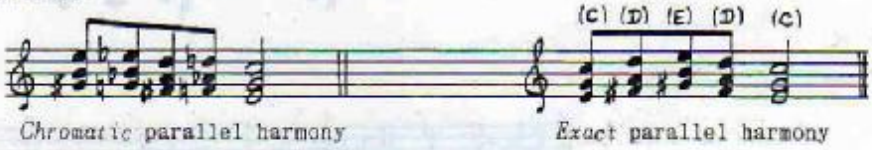


However, parallel 5ths which involve 7ths, 9ths, or any other dissonance (i.e., parallel 5ths which are not the *root and perfect 5th* of the chord) are entirely acceptable. To illustrate:



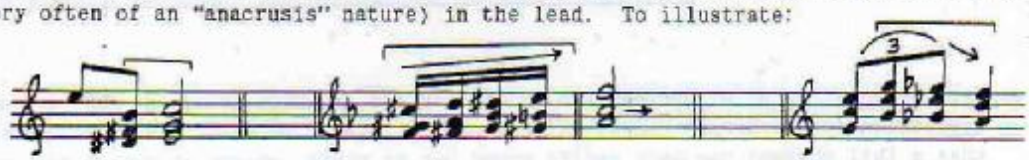
2. CHROMATIC AND EXACT PARALLEL HARMONY

Procedure: The supporting parts move in exactly the same intervals as the melody. (Consequently each part performs the same melody at a different pitch level.) All parts move in similar motion, and the result is a sustained impression of the basic chord type. To illustrate:



Considerations:

a. *Chromatic* parallel harmony is the most adaptable, and the most frequently used, form of parallel harmony. It is used for the harmonization of brief or prolonged chromatic lines (very often of an "anacrusis" nature) in the lead. To illustrate:



b. The parallel harmony should be calculated TO a pre-determined destination point, and not necessarily FROM, as:

c. If the destination chord is dissonant, the parallel harmony leading to it may be a succession of similarly dissonant structures, as:

d. Chromatic parallel harmony has a "neutral" quality and offers no particular threat to the key. "Exact" parallel harmony, which moves in other than half tones, sets up an "impressionistic" flavor, as:

This type of "impressionistic" harmony is used in arranging for an occasional *effect*. Any chord type may be chosen, depending on the desired quality and the intended ultimate destination. To illustrate:

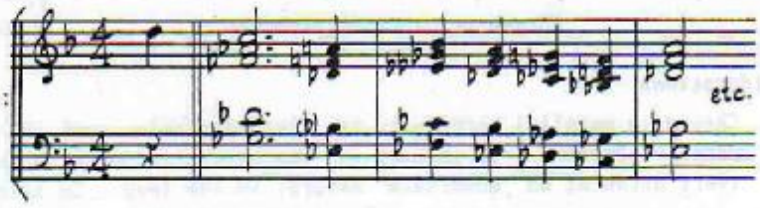
(The bass in all the following examples could be situated on a tonic or dominant organ point.)

Major Chords:

Augmented Chords:

Chords in 4ths:

Augmented 11th Chords:



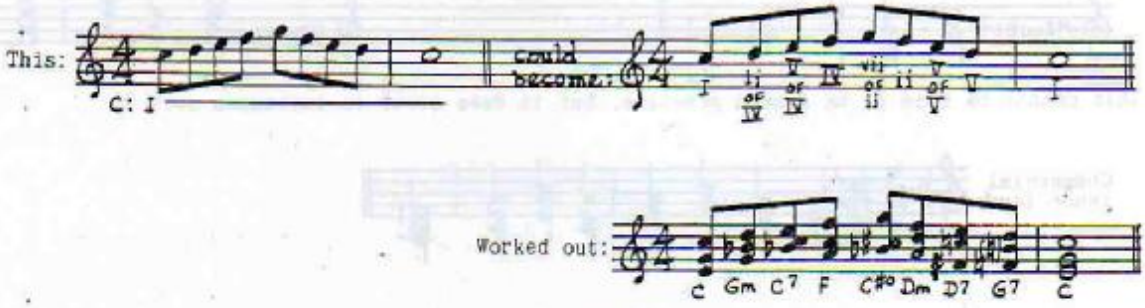
e. Because exact parallel harmony has an obvious and emphatic sound, it MUST be handled with discretion in the normal course of sectional writing. A brief use of it (something less than a full phrase) can very easily sound out of place, unless it serves the interests of an intended emphasis. To illustrate:

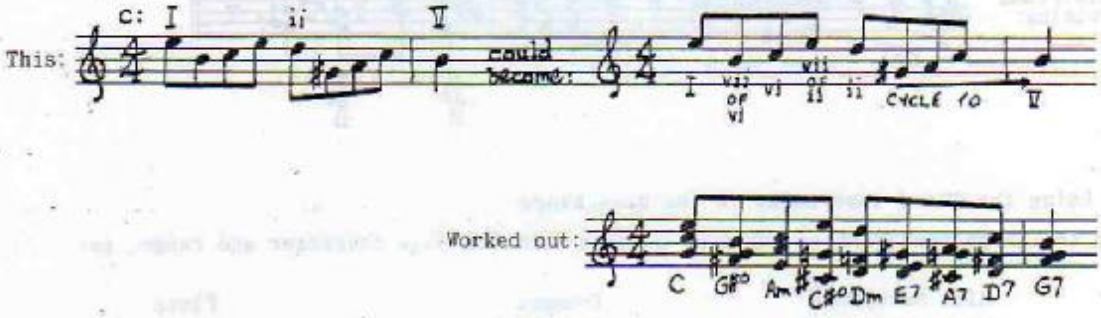
Possible, but 'sharp' and emphatic. A short passage like this will probably sound out of context in a normal harmonic setting.

Excellent. Here it is used specifically for the emphasis it provides.

C. Use of Harmonic Elaboration, Including "Internal Tonicization", "Transient Modulations", etc.

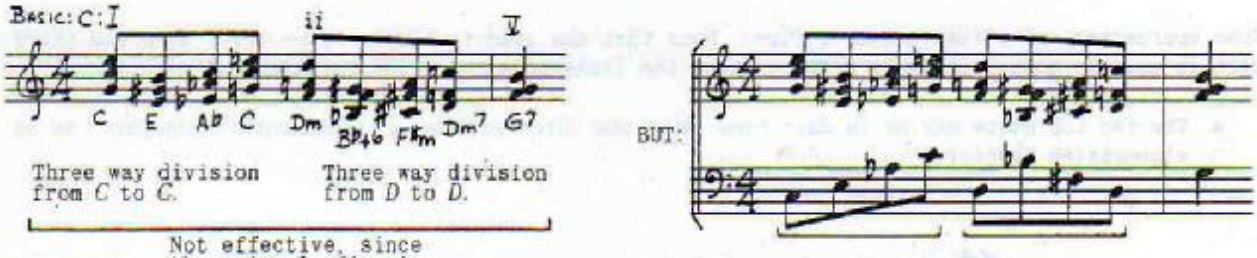
Proposition: A line can be re-harmonized, *within the basic chord progression*, through the application of "internal tonicization". The re-harmonization may include modulations to closely related keys, the use of the "cycle", etc. To illustrate:





D. Equal Division of the Octave

This is a technique with only limited value in three parts. If another instrument can be incorporated to play the actual root progression, the logic will be felt. To illustrate:



Not effective, since the voice leading is illogical and the equal division harmonic relationship is not clear.

GOOD! As soon as the actual root progression is played, the intention and logic of the movement becomes clear.

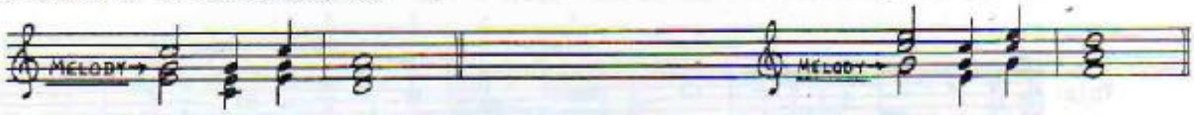
Note: The equal division of the octave technique is purely *harmonic*. Its logic rests on the mathematical symmetry of the root relationship between the chords. Consequently, the voice leading is not related to a scale and will not likely work out in the usual horizontal sense.

In techniques involving the use of chromatic "leading chords", "internal tonicization", etc., smooth and logical voice leading should be a continuing concern. It is, in fact, the main justification for the techniques.

ADDENDUM

1. Harmony above the Melody

With proper regard for distribution of instrumental weight, it is possible for the melody to be in the middle or at the bottom, as:



This cannot be said to be common practice, but it does occur in instances such as:

Commercial *tenor lead:*

Dixieland voicing:

2. Using the Third Instrument in the Bass Range

When the three part section contains an instrument of *bass* character and range, as:

Alto Saxophone	Trumpet	Flute
Tenor Saxophone	Alto Saxophone	Clarinet
*Baritone Saxophone	*Baritone Saxophone	*Bass Clarinet

the three part writing can be done in such a way that this *bass* quality in the third part is exploited. Such a "section" can, in fact, be self-sufficient if attention is paid to proper bass and to rhythmic balance. In this case, rhythm section accompaniment need not be essential.

Some approaches and illustrations follow. Note that the lead is likely to be lower when the third part is used in bass fashion in order to keep the lines from being too far apart.

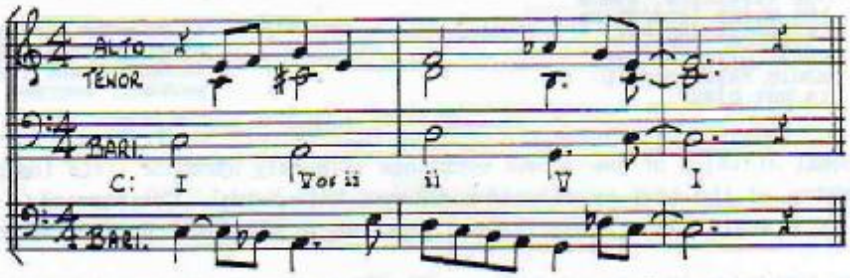
a. The two top parts may be in *duet* form, with the third part on a fundamental bass part, or an elaboration thereof:

Duet:

Fundamental bass:

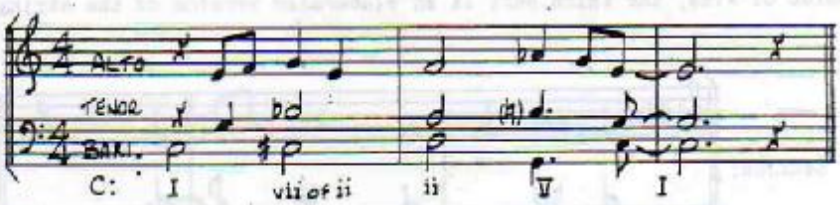
OR:

Elaborated bass:

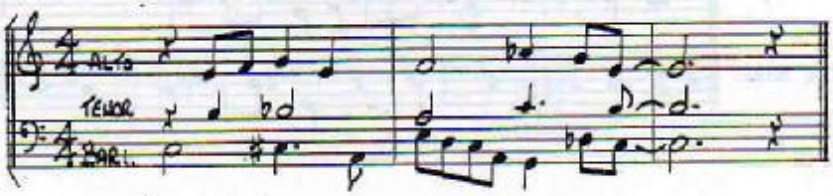


b. A "three part writing" technique can be used:

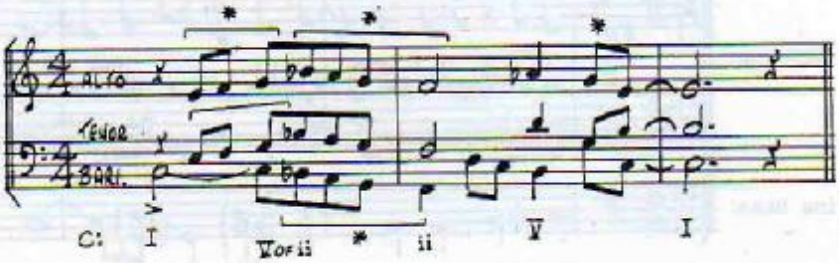
Simple:



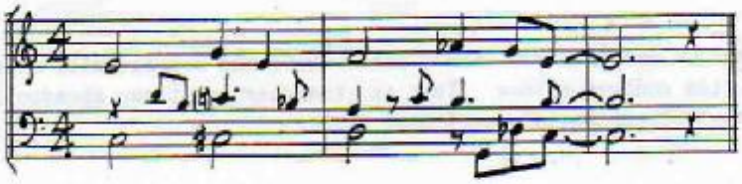
More elaborate:



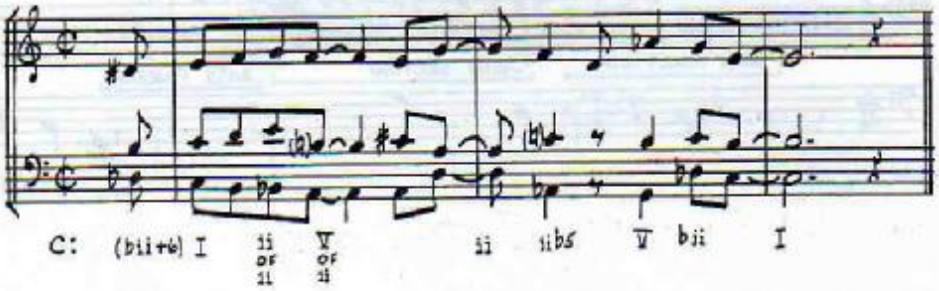
c. Unisons, octaves, etc., still remain available:



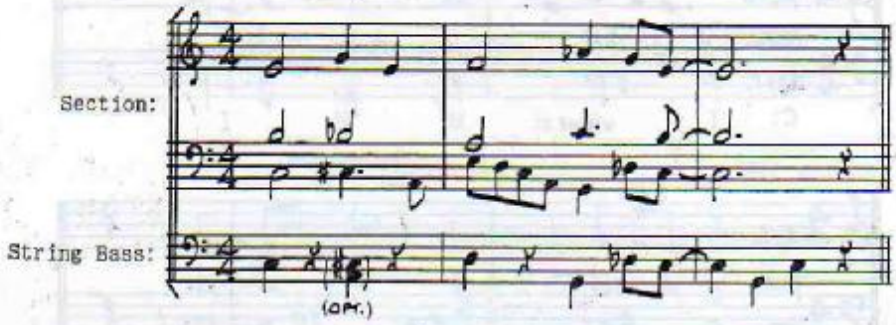
d. Rests may be used:

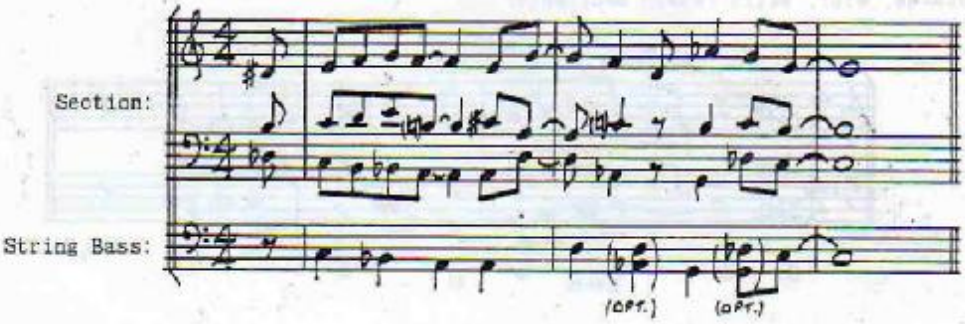


e. In a syncopated "rhythmic" passage, where more of a "note for note" sectional style is desirable, the bottom part can still be of a *bass* character:

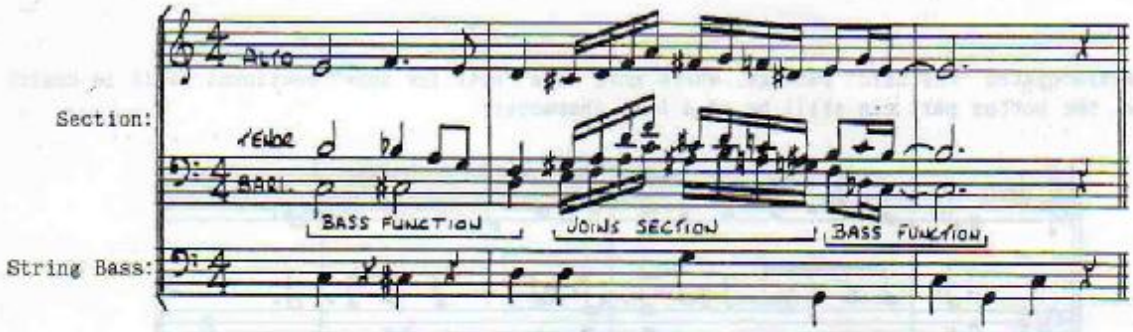


f. When a string bass is present, it will play an *abbreviated* form of the third part (or, from another point of view, the third part is an *elaborated* version of the string bass part):





g. When a string bass IS present, the three parts above can occasionally engage in purely *sectional* writing, if the context allows. That is, the third part can abondon its *bass* role, and join the other two instruments in a *sectional* style:



ASSIGNMENT 4

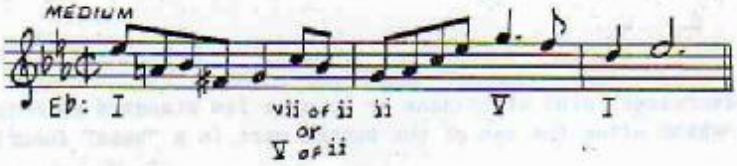
1. Lead is given. Harmonize in three part sectional harmony for the instruments indicated, plus string bass and chord symbols. Try for at least three different solutions for each.

a. 2 Altos, Tenor

b. 2 Altos, Tenor

c. 3 Soprano Clarinets

d. 3 Trumpets

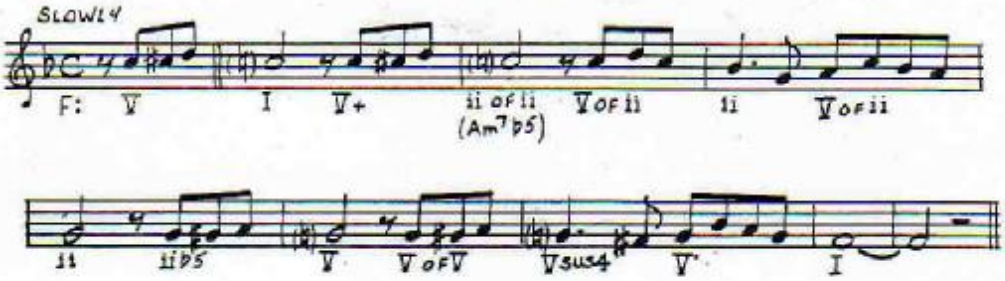


e. 2 Trumpets, Trombone

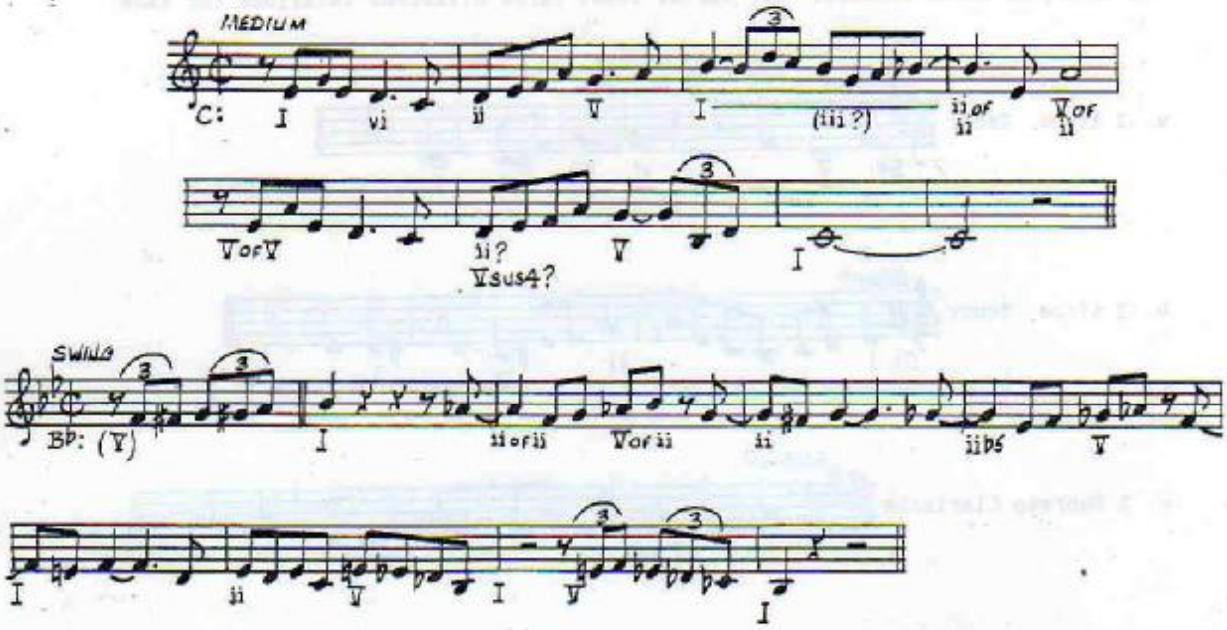
Also use: A. Any or all of the lines from the DUET assignment for various three part sections.

B. Eight bars or so from a few standard melodies, of differing styles, for various three part sections.

2. Harmonize the following for flute, clarinet, and bass clarinet in a "self-sufficient" style (no other accompaniment). Use the bass clarinet in a "bass" function.



3. Harmonize each of the following for alto, tenor, and baritone saxophones, plus string bass and and chord symbols.. Use the baritone in a *general* bass function.



4. Use any previous exercises, plus eight bars or so of a few standard melodies, for groupings of three instruments which allow the use of the bottom part in a "bass" function.

SEE SAMPLE SOLUTIONS

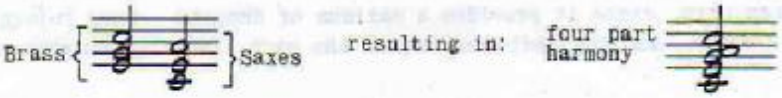
Chapter 7

FOUR PART SECTIONAL HARMONY

General Remarks

Harmony at a four part level, with an "added note" to the triad, is the most commonly used form of harmony in present day stage band writing and related fields. Even in commercial radio and TV scoring, where the strings may not be in *sectional* harmony, the brass and saxophones usually are.

Four man sections are widely used, and when smaller sections are combined (as, for instance, brass and saxophones) the use of a four part level harmony is the general procedure, as:



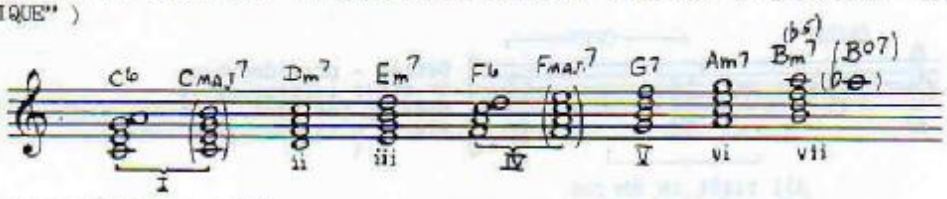
Because of its greater "density", four part harmony has a more *sectional* sound than three part. In fact, the general aim of four part sectional harmony is *density without undue tension*. Four part harmony is most successful when the section is composed of instruments with similar tone color, and when the tone color is fairly dense.

I. THE VERTICAL CONSIDERATIONS

A. The "Added" Notes

The note added to the triad will normally be the *Minor 7th, when it is available in the scale being used*, and a *"7th harmonic substitute"* when the Minor 7th isn't available in the scale. (See "MODERN HARMONIC TECHNIQUE")

C Major Scale:



"Added 6th" more usual, since the Major 7th may have undue tension in some voicings.

C Minor Scale: (*Irregular* forms are in brackets.)

*Use only in a transitional manner and not as a regular *harmonic* addition.

Conclusion

The Minor 7th is used when available in the scale. However, because of its instability, it is NOT used on the tonic chord in Minor, unless as a "passing" or transitional 7th.

When the Minor 7th is not available in the scale, the Major 6th is most often employed, with the Major 7th reserved for those voicings where it will not produce too much tension (or where the tension is desirable).

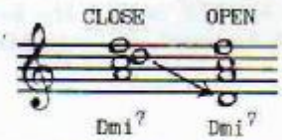
Further, as will be noted, "9ths" are employed in some voicings, notably in *dominant structure* chords.

The "added" notes, when used harmonically, produce harmonic *density*. They are not generally regarded as "tendency tones", except if used melodically. Furthermore, the consistent use of "added" notes cancels out, to a great degree, their traditional linear tendencies.

B. **Open versus Close Voicing**

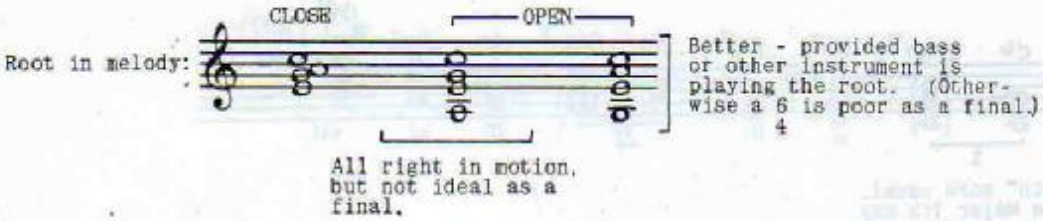
Close voicing is more often used, since it provides a maximum of density. Open voicing provides a richer sound but is less compact, and the individuality of the part lines is somewhat more apparent in open voicing.

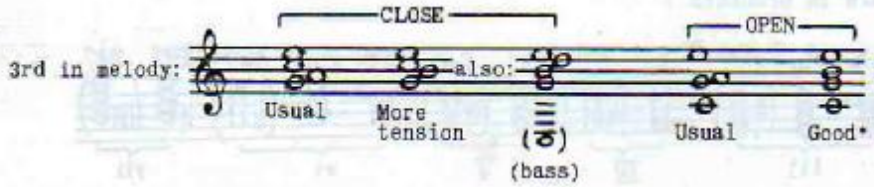
Open voicing is generally achieved with an octave transposition of the second part from the close voicing, as:



Other arrangements are possible and are sometimes necessary. Examine the following representative examples of basic four note voicings, but remember that any catalogue of *vertical* structures can only be a guide. Ultimately the use of, and the effectiveness of, any voicing is dependent on what precedes and follows it.

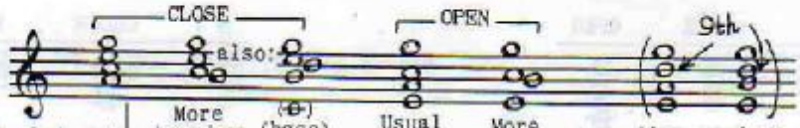
1. MAJOR CHORDS (As I and IV in major, etc.)





*The tension of the Major 7th, which is "softened" with a note in between, is not nearly as great as it is in the close voicing, which contains a Minor 2nd.

5th in melody:



All right, but not good for a final, particularly if voiced too low.

More tension

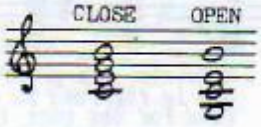
(bass)

Usual

More tension

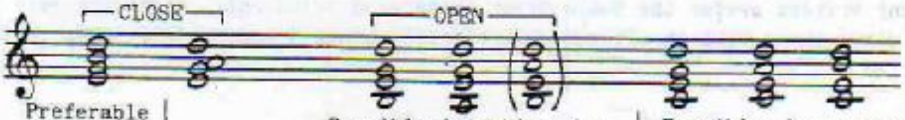
Also good if not too low.

7th in melody:



6th in melody:

9th in melody:



Preferable

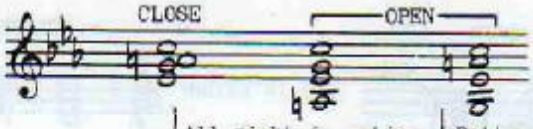
Use of major 7th instead of 6th provides a more balanced sonority.

Possible in motion, but may be undesirable at points of rest.

Possible, but generally the 9th is regarded as a *substitute for the root* in four part sectional writing.

2. TONIC MINOR CHORD

Root in melody:



All right in motion, but not good as a final.

Better, but in a final chord the bass or other instrument should play the root.

3rd in melody:

Usual

High tension

Tension!

5th in melody:

Acceptable in motion, but not good for a final if voiced too low.

High tension

Tension!

7th in melody: CLOSE OPEN

6th in melody: CLOSE OPEN

9th in melody: CLOSE OPEN

Possible in motion but not good at points of rest.

Possible, but generally the 9th is regarded as a substitute for the root in four part sectional writing.

Addendum: Many writers prefer the Tonic Minor chord as a *triad* only, since the very fact that it is a minor chord with an altered 5th partial, assures more density than is found in a major triad.

3. MINOR 7TH CHORDS (as ii, iii, vi, in Major - IV in Minor, etc.)

Root in melody: CLOSE OPEN

3rd in melody: CLOSE OPEN

5th in melody: CLOSE OPEN 9th 9th

7th in melody: CLOSE OPEN 9th

9th in melody: CLOSE OPEN

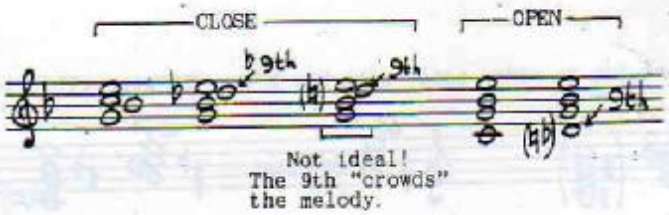
Possible, but the 9th is more often used *instead* of root in four part sectional writing.

4. DOMINANT STRUCTURES

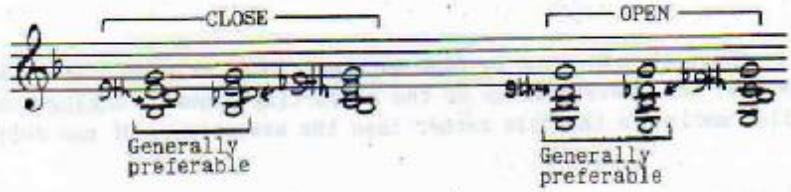
The following examples will show that 9ths and flatted 9ths are more freely used in dominant structure chords. Dominant 9th chords are much more readily assimilated into four part environments than other 9th chords, because of their greater acoustical purity.

Root in melody: CLOSE OPEN 13th

3rd in melody:

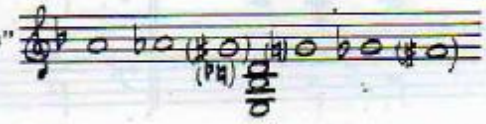


5th in melody:

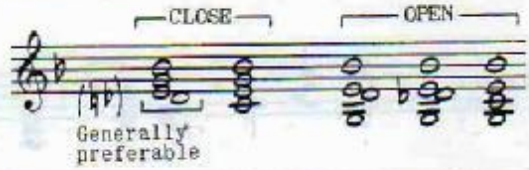


The above voicings are equally adaptable with the other "variable 5ths" (the 13th, augmented 5th, flatted 5th, augmented 4th) that often appear on dominant structure chords, as:

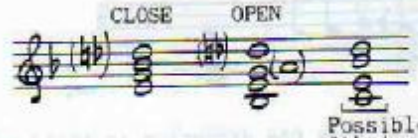
"Variable 5ths"



7th in melody:



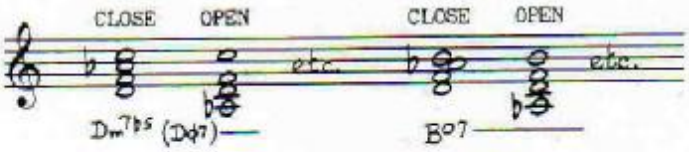
9th in melody:



Possible, but the 9th is more often used instead of root in four part sectional writing.

5. DIMINISHED CHORDS (Diminished 7th and Mi7♭5 chords)

The Diminished chords should cause no problem, but remember that "9ths" are not available as *harmonic* additions to these chords.

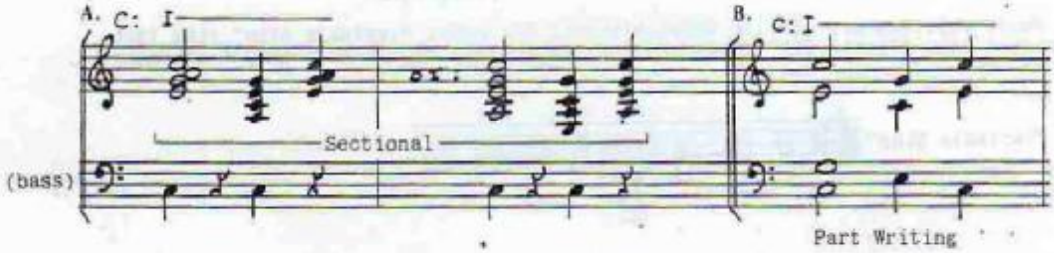


6. AUGMENTED CHORDS

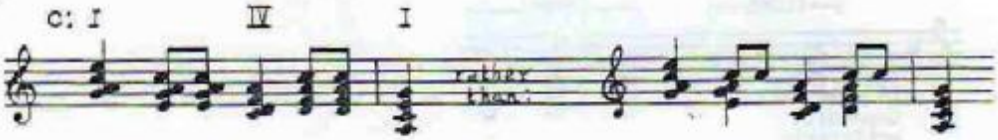
Any adjacent whole tone will work for an added note, with the Minor 7th generally favored, as:

C. Conflicting Motion

Oblique and contrary motions are at a minimum in four part sectional writing. This is not to say that they are unavailable, but the individuality of the supporting lines is subjugated to overall density and fusion. Similar motion is the rule rather than the exception. Of the following examples, A. is favored:



When the melody strikes the same note more than once, the supporting parts will probably do likewise, as:



Some independence of the *lead* part can often be effective, particularly when the melodic movement is of a "decorative" nature, as:

However, any real individuality in one of the supporting parts is the exception in sectional writing. Independent motion in a supporting part breaks the *sectional* environment and centers attention on the independently moving part. This is not necessarily undesirable, but it is not consistent with the usual aim of sectional writing. To illustrate:

D. Vertical Support of the Melodic Inharmonics

1. THE ACCENTED INHARMONICS

The text on three part sectional writing commented on the necessity to differentiate between an *expressive* appoggiatura and a *rhythmic* one. As in three part, it is wise to retain or heighten the dissonance of an *expressive* appoggiatura, as:

*Note use of a "7 - 6" appoggiatura along with the "9 - 8".

Whereas, a *rhythmic* appoggiatura (usually of short duration and usually a half tone UNDERNEATH the chordal tone) may be effectively accommodated with an "appoggiatura chord", as:

*Note appoggiatura Major 6th treated as a chordal tone.

Possible, but lacks the sectional force and rhythmic drive that the passage suggests.

(As noted earlier (see "Three Part Sectional Writing, Page 59), appoggiatura chords which resolve on the same beat will not affect the rhythm section, but if the appoggiatura chord lasts a full beat or more it may be wise to adjust the rhythm section accordingly.)

2. THE UNACCENTED INHARMONICS

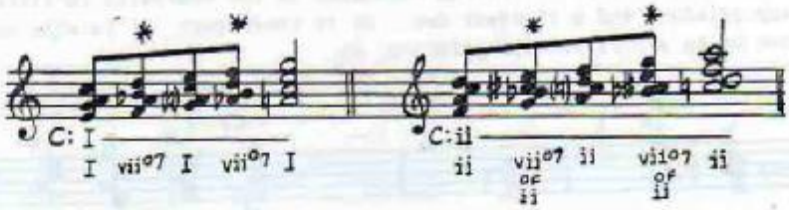
a. Passing Tones

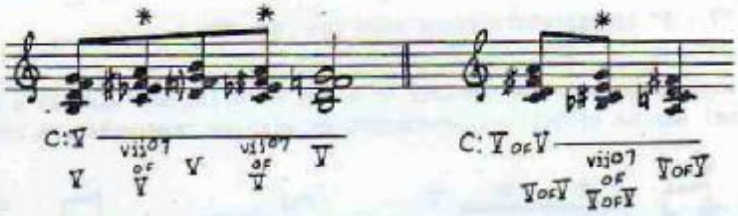
As in three part sectional writing, a passing tone in the melody may be supported with a *passing* chord, or may simply be left as a melodic movement. The decision depends on the style, speed, etc., of the passage. When the passing tone occurs in a rhythmic passage, it is usually better to use a "passing chord", as:

Possible, but lacks *sectional* force.

Better. More unified and sectional.

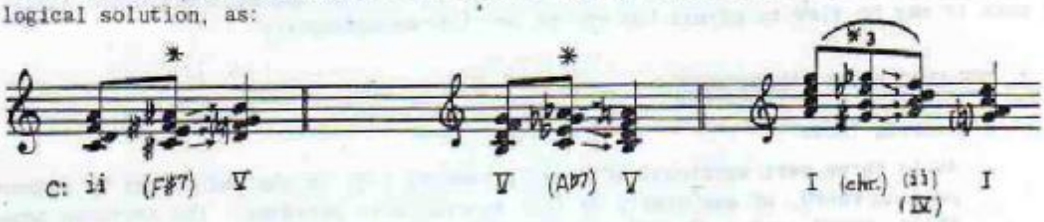
The increased density of four part sectional writing *allows less use of voice leading as a guide in the choice of inharmonic chords.* It is often more satisfactory to calculate them **chordally.** When the passing tone occurs between notes of the same triad, the "passing vii^{o7}" is the handiest tool in the kit, as:





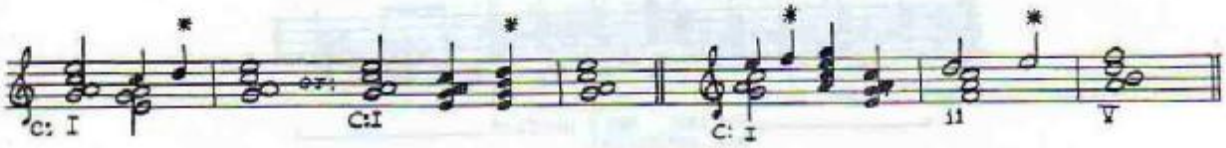
If the passing tone is a 9th, 7th, or 6th, it can often be accommodated with the basic chord, as:

If the passing tone is chromatic, a chromatic "leading" chord aimed at the destination is a logical solution, as:



Sometimes the chromatic passing tone may be left to the lead only, as:

If the passing tone is a full beat duration or more, and its use is more sedate than in the previous examples, it may be preferable to leave it in the lead only, or at least to avoid a change of harmony, as:

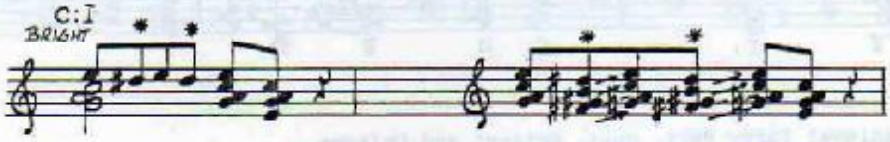


b. Auxiliary Tones (and auxiliary derivatives)

Again, there are two possibilities. The auxiliaries may be left in the lead only, or they may be accompanied with auxiliaries in the supporting parts, forming "auxiliary chords". To illustrate:

Melodic individuality — More sectional

At a slow tempo, both are acceptable



Lacks sectional force — Much better

Good — Less acceptable

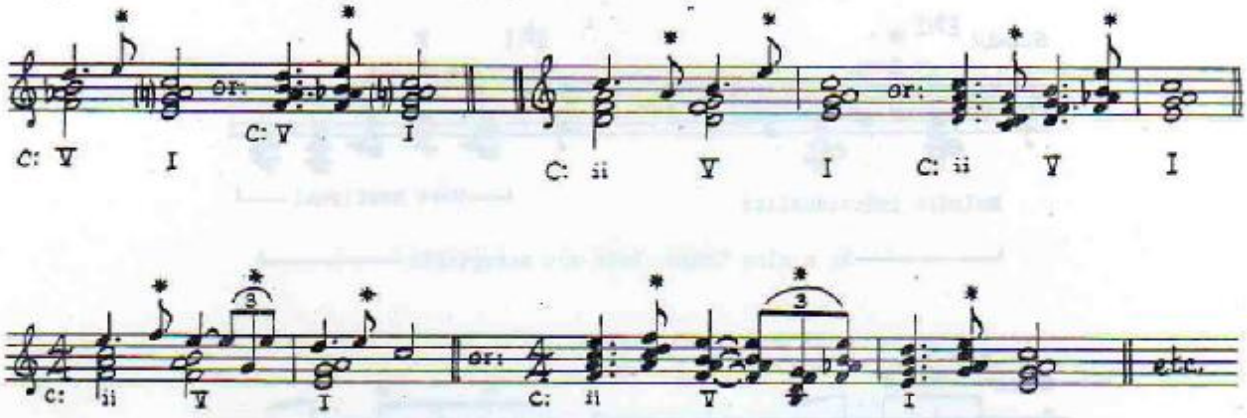
*Note Major 6th harmonized as chord tone.

Acceptable — More unified and rhythmic

Acceptable — More unified and rhythmic

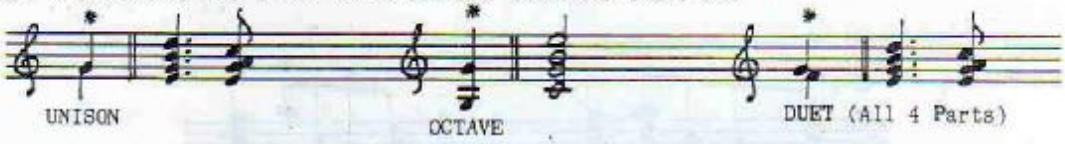
3. DECORATIVE RESOLUTIONS

As in three part writing, cambiatas, échappeés, and other purely decorative notes are often effective when left to the melody only. However, "note against note" sectional movement is acceptable. To illustrate:



E. Use of Occasional Three Part, Duet, Octaves and Unisons

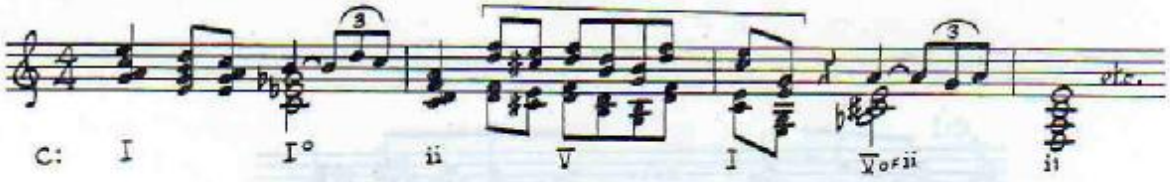
A "pick-up" (anacrusis) may often be in unison, octaves, etc., as:



An off-beat or weak beat note resulting from an abrupt dip in the melody may be written in unison, to avoid awkward leaping, as:

A section of a passage may suggest a unison or octave treatment, as:

A fragment of a passage may suggest a duet treatment, as:



An occasional three part chord may be used, particularly if suggested by logical voice leading, as:

Caution: The introduction of unison, octaves, or a less dense form of harmony will always produce an emphatic "thinning" of the texture, and should not be used haphazardly.

F. Use of Consistent Octaves or Unison

In many cases, a line may be more effective in unison or octaves than it would be in harmony, either from the point of view of arranging "color" or because of a need for greater mobility. No specific directions can be given, since such a decision rests with matters of taste and context. There is no technical problem involved other than the correct distribution of weight. In general, the greater weight should be at the bottom.

G. Use of Consistent Duet

When the situation allows a good duet solution, it can be a very effective orchestration device. With four parts, the standard procedure is a **double duet**, one an octave lower than the other, as follows:

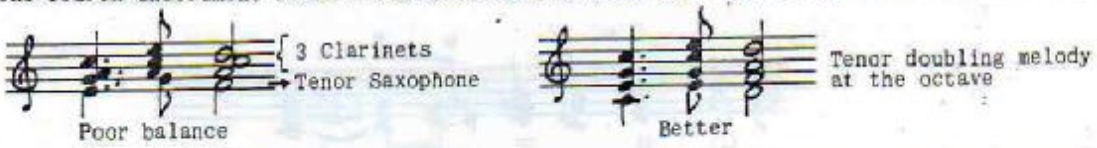
A single duet, with unison doublings is also possible, as:

H. Use of Consistent Three Part Level

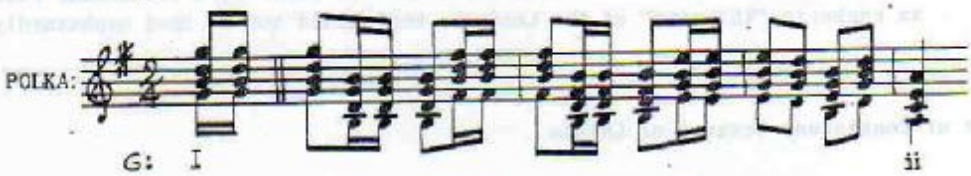
Many arrangers tend to use the four part level of writing excessively on the basis, presumably, that if four men are available there should be four different notes at all times. Actually, the use of an octave doubling of the melody with only a three part level of harmony can be a refreshing change. It is particularly worth considering in the following situations:

1. Where an interesting three part technique can be employed, and where four part harmony might overload the texture and crowd the lines, as:

2. Where the fourth instrument is of a different and heavier tone color, as:



3. In the arranging of semi-classics, some waltzes, traditional dances, etc., where the four part sound may not be in agreement with the environment and aim of the arrangement, as:



II. THE HORIZONTAL CONSIDERATIONS

The horizontal importance of the supporting parts, particularly in close voicing, is at a minimum. The overall effect of four part sectional writing is a unified sound, a "thickened melody", rather than a texture of four individual parts. Simply try to achieve the best voice leading that is possible when it can be gained without loss of the unified sectional effect. Take note of those points (such as cadences) where voice leading could be important.

In the interests of playing ease and a smooth sectional sound, it is often desirable to avoid repeating notes quickly in a supporting part *when the lead is moving*, as:

Supporting parts difficult to play rhythmically!

One solution is to "cross" parts, as:

Two bottom parts extracted from above:

This has the effect of retaining the same vertical structures, while providing movement for ease of playing.

III. SOME ADDITIONAL TECHNIQUES

The reader will remember this heading from the section dealing with three part sectional writing, under which were listed:

A. **Use of Leading Chords Built from Inharmonics**

B. **Parallel Harmony**

C. **Elaboration Harmonies**

D. **Equal Division of the Octave**

There is no reason to make another full investigation of these techniques, since the principles are identical. A few points are worth noting, however:

These fancier techniques are:

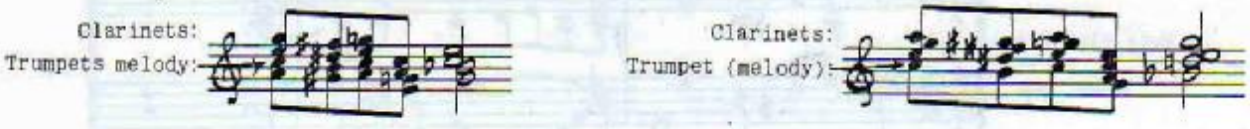
1. Not as readily available in four parts, since there is less space for each part to move around in. (However, as mentioned earlier, an interesting three part solution will be effective in four parts with an octave doubling of the lead.)
2. Not as necessary in four part writing, which has sufficient density. (Very often a fancier technique is used in three part to make up for lack of density.)

Parallel harmony in four parts is often better in OPEN voicing. Excessive tension may result with four part CLOSE voicing. To illustrate:

ADDENDUM

1. Harmony above the Melody

With proper regard for distribution of instrumental weight, it is possible for the melody to be in an inner part or even at the bottom, as:



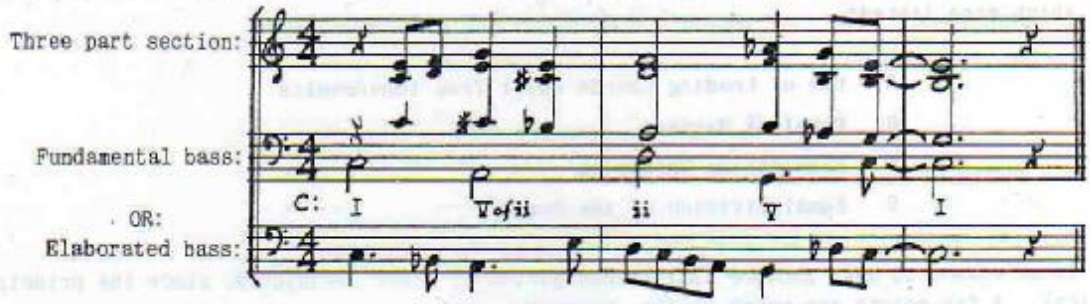
2. Using the Fourth Instrument in the Bass Range

When the four part section contains an instrument of *bass* character and range, as:

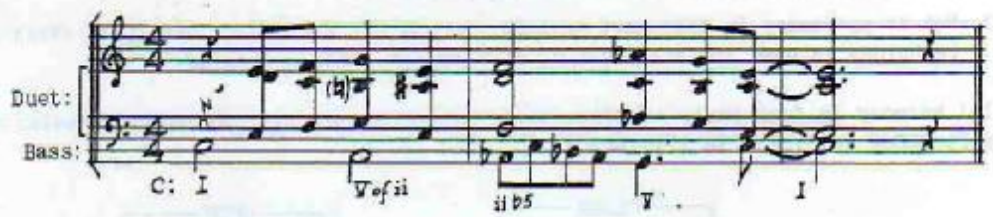
Alto Saxophone	Clarinet
Alto Saxophone	Clarinet
Tenor Saxophone	Clarinet
*Baritone Saxophone	*Bass Clarinet

the four part writing can be done in a way that exploits the *bass* quality of the fourth part, and, if desired, can be done in a self-sufficient manner. The techniques are similar to those discussed under the same heading in three part sectional writing. Here are examples:

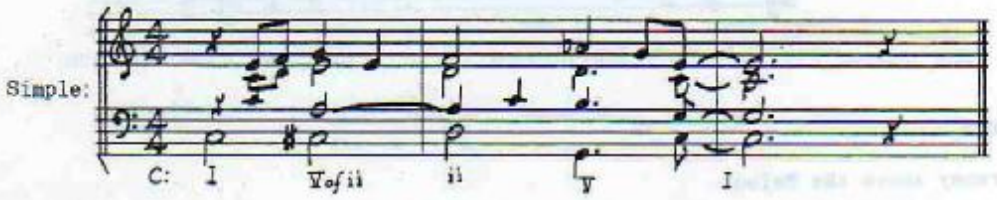
a. The upper three parts are in "three part sectional" form, with the fourth part on a fundamental bass part or an elaboration thereof:



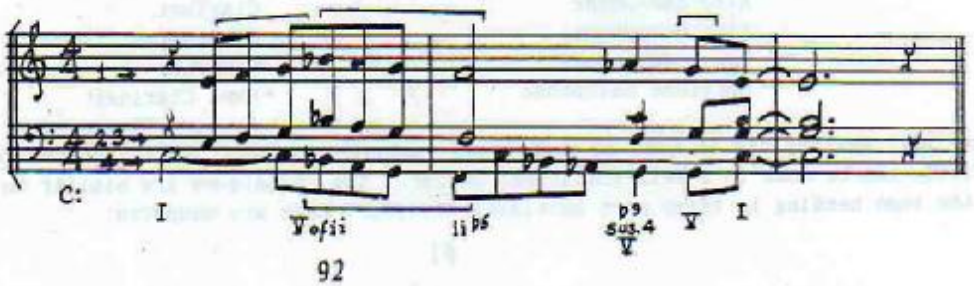
b. If the melody allows a good two part harmonization, the upper parts may be written as a *duet* (perhaps with an octave doubling of the lead) with the fourth part playing a bass or elaborated bass, as:



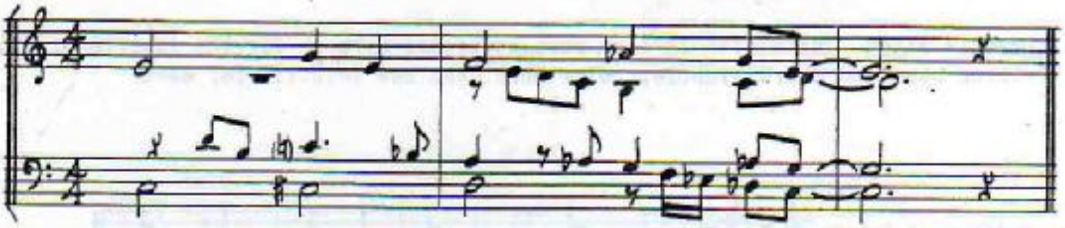
c. A "four part writing" technique may be used, as:



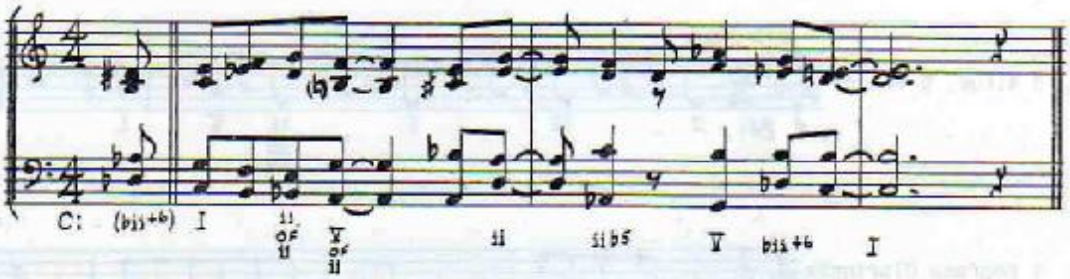
d. Unisons, octaves, etc., are still possible. To illustrate:



e. Rests are available, as:

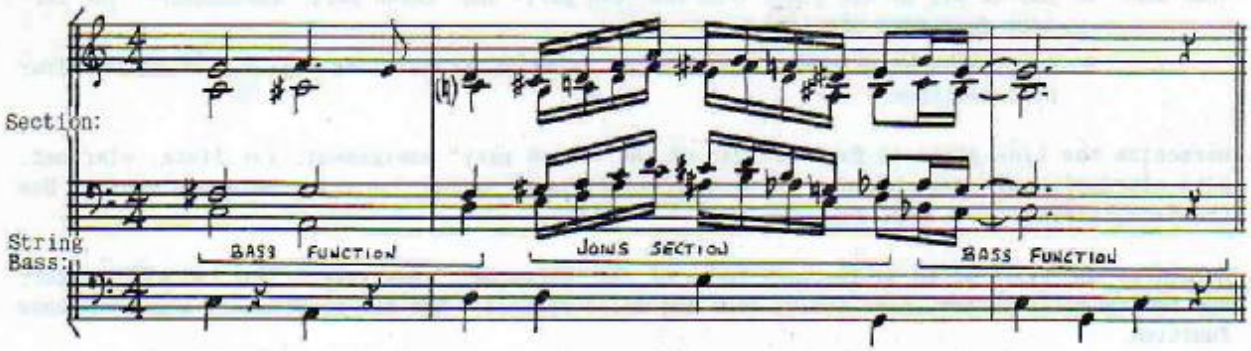


f. In a syncopated *rhythmic* passage, where more of a "note for note" sectional style is desirable, the bottom part can still be of a *bass* character:



g. When a string bass is present, it will play an *abbreviated* form of the fourth part, as:

h. When a string bass IS present, the four parts above can occasionally engage in purely *sectional* writing if the context allows. That is, the fourth part can abandon its *bass* role and join the other three instruments in a *sectional* style:



ASSIGNMENT 5

1. Lead is given. Harmonize in four part sectional harmony for the instruments indicated, plus string bass and chord symbols. Give more than one solution for each.

a. 2 Altos, 2 Tenors

b. 2 Altos, 2 Tenors

c. 4 Soprano Clarinets

d. 4 Trumpets

e. 2 Trumpets, 2 Trombones

Also use: A. Any or all of the lines from the "two part" and "three part" assignments, for various four part sections.

B. Eight bars or so from a few standard melodies, of differing styles, for various four part sections.

2. Harmonize the line given in Exercise Two of the "three part" assignment, for flute, clarinet, alto clarinet, and bass clarinet, in a "self-sufficient" manner (no other accompaniment). Use the bass clarinet in a *bass* function.

3. Harmonize the lines given in Exercise Three of the "three part" assignment, for two alto, tenor, and baritone saxophones, plus string bass and chord symbols. Use the baritone in a *general* bass function.

SEE SAMPLE SOLUTIONS

Chapter 8

FIVE PART SECTIONAL HARMONY

GENERAL REMARKS

In large orchestras, sections of five players are often found. These sections are more frequent, actually, than is the use of a five note level of harmony. The *consistent* use of five note chords is often:

1. Impossible

or

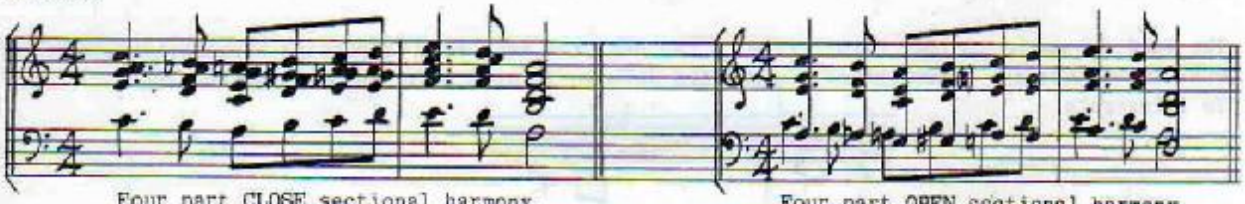
2. Undesirable.

A five part level of harmony is dense and heavy. Many melody notes do not lend themselves to a five part voicing and the use of five part chords to harmonize simple tunes could sound pretentious and in bad taste. The weight of five part harmony tends to submerge not only the supporting lines but also, to a great degree, the melody itself. Further, the sometimes unwieldy quality of consistent five part harmony is an added burden to the rhythm section and can often have an adverse effect on the rhythmic drive.

On the other hand, many melodies in a modern vein are adaptable to five part writing, particularly those which make use of 9ths and other "upper functions". Also the use of five part writing for brief or prolonged harmonic effect and color is a valuable orchestration resource.

I. USUAL PROCEDURE

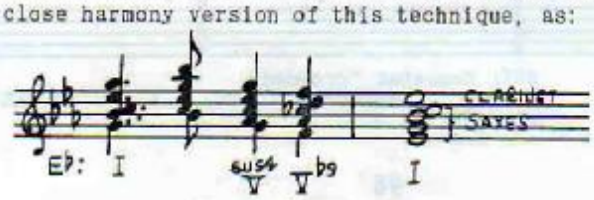
In practice, five part sections are most often written at a four part harmony level. The melody is doubled at the octave with, perhaps, an occasional five part chord. The basic voicings are as follows:



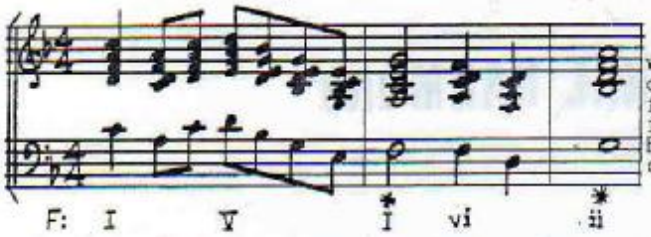
Four part CLOSE sectional harmony, with the melody doubled an octave lower.
This compact voicing is more usual.

Four part OPEN sectional harmony, with the melody doubled an octave lower. Although used less than the CLOSE voicing, this is somewhat "richer".

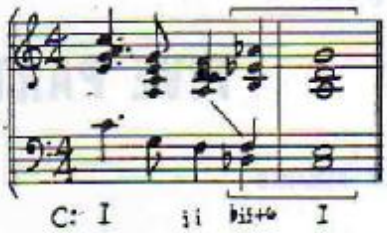
Assuming a familiarity with four part sectional writing, this procedure should offer no particular difficulty. It strengthens the always important melody and still retains the density of four part sectional harmony. The use of clarinet lead with four supporting saxophones (commonly called "Miller lead") uses the close harmony version of this technique, as:



The doubled melody may be discarded occasionally to procure a 9th chord. This will suggest itself in certain melodic situations, such as the appearance of a significant 9th in the melody, as:



OR:
where a 5 part chord is desired for harmonic effect and emphasis. For instance at cadence points:



II. THE FIVE PART LEVEL OF HARMONY

Introductory

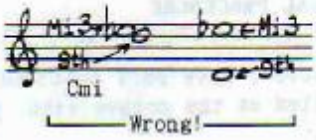
The 9th (and occasionally the 11th) becomes a member of the chord, used *harmonically* rather than *inharmonically*. Just as the four part level of harmony incorporates the 7th (and occasionally the 6th) into the chord, so does the five part level incorporate the 9th.

Some melody tones (e.g., Minor 3rds) do not allow the use of a five part chord, and some chords (e.g., Diminished chords) do not allow a fifth part. Consequently, occasional modification of the harmony and/or the melody is sometimes necessary.

A. Voicings

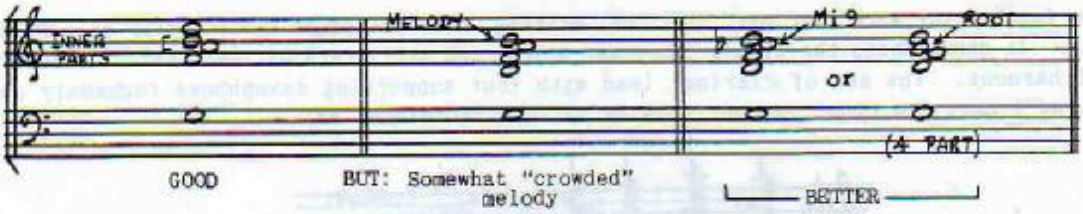
1. Whenever a MAJOR 9th is available in the scale to which the chord belongs, it will be successful. On *dominant structures*, a Major or a Minor 9th is possible. Avoid a Minor 9th on chords other than dominant structures.

2. Avoid placing a *harmonic 9th* below a MINOR 3rd in the melody, as:

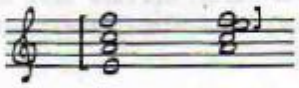


The word *harmonic* as used here refers to the use of a note as a supporting harmony tone. A 9th can, of course, appear below a minor 3rd when it is used as a "melodic inharmonic". To illustrate:

A Major 9th below even a Major 3rd *in the melody* may "crowd" it, and result in some loss of melodic clarity, as:



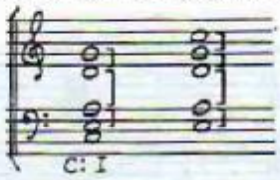
3. The Major 7th placed UNDER the root produces a high level of tension, as:



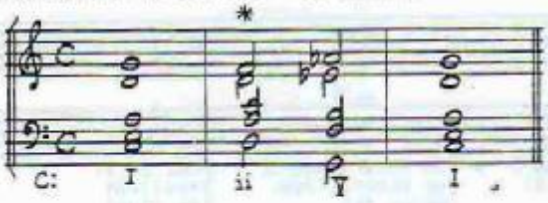
It should be used only in the treble range, and then only if the high tension is acceptable in the context.

4. OPEN voicings are favored, with as much clarity (low partial numbers) as possible. Necessarily, there is considerable tension and density when five different notes are played simultaneously. It is wise to look for the arrangement which produces the *least* tension and the *least* density. (See the heading "Five Parts Within An Octave" page 110, for a modification of this suggestion.)

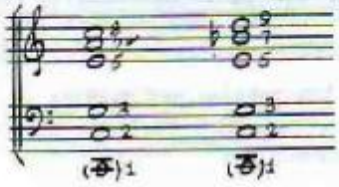
5. Voicings which favor the interval of the 4th between the parts are effective and well balanced:



6. Do not force a 9th into a structure which resists it! If a clear 9th voicing is not available, and a change of melody or chord is not feasible, use a four part structure. The movement from a five part level of harmony to a four part level is NOT too much of a loss of density, and will not sound out of context. To illustrate:



7. Remember the Harmonic Overtone Series! A structure which reflects the overtone series will always contain the most clarity and blend. In the overtone series, the *fundamental triad tones are at the bottom with the "upper functions" at the top.* Further, the wider intervals are at the bottom, the closer ones at the top. Consequently, the triad (particularly the open triad) placed at the bottom will provide a solid foundation and the most effective sonority. To illustrate:



8. As always, *music in motion* takes liberties with the chord structures. The vertical construction of the chord is important in a slow moving passage, sustained chords, etc. When the chord is transitional, unaccented, and/or of short duration, its vertical importance is at a minimum and may be subordinated to the movement of the parts.

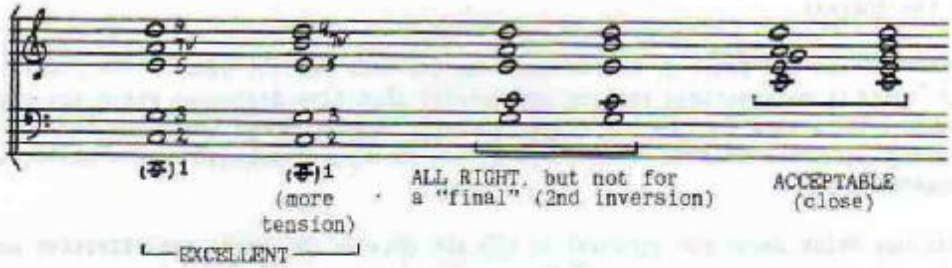
9. The melody notes which are best suited to the voicings are 9ths, 5ths, and roots, in that order. The 3rds, 7ths, and 6ths in the melody present difficulties which, in some cases, are insurmountable.

10. Some Examples

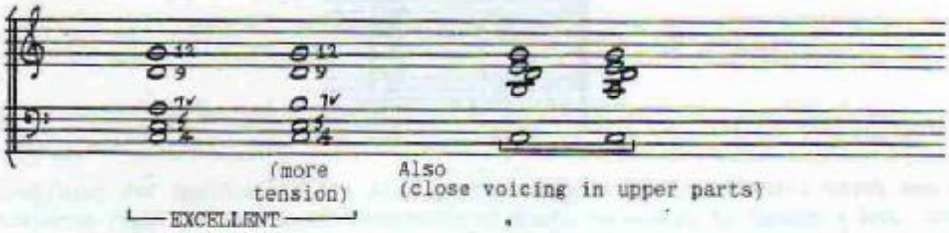
Examine the following examples carefully, and take note of the comments. These are representative voicings and no attempt is made to include all possibilities.*

MAJOR CHORDS (as I, IV in Major, etc.)

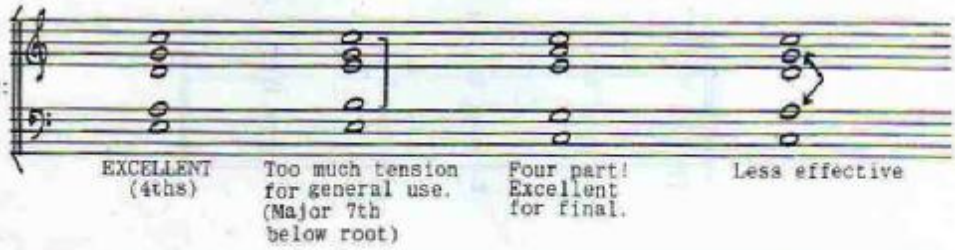
9th in melody:



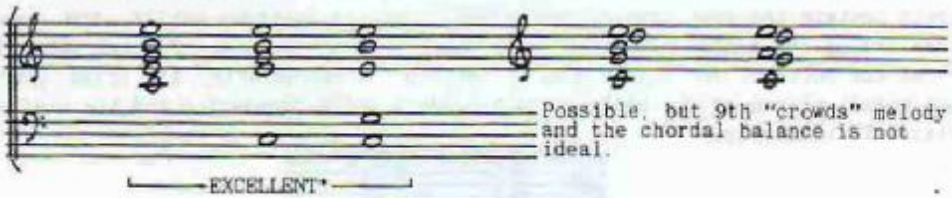
5th in melody:



Root in melody:

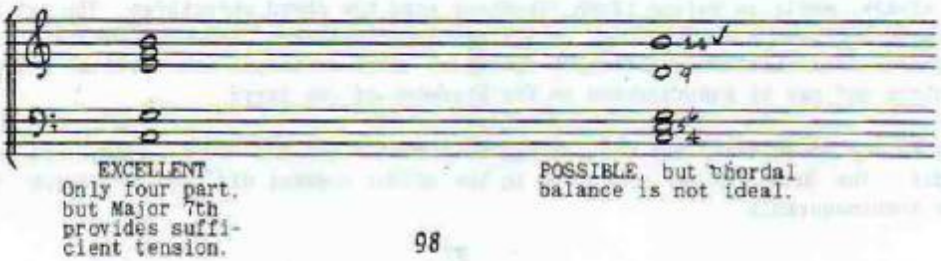


3rd in melody:

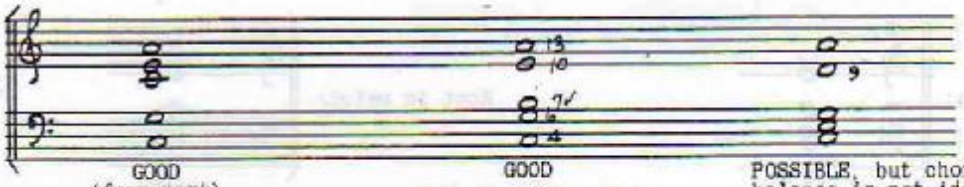


*Although at only a four part level, the tension and density of the Major 7th allows this chord to function very well in a five part environment. Further, note the doubled 3rd. This seems quite acceptable when the Major 7th is present.

7th in melody:



6th in melody:



GOOD (four part)

GOOD With the Major 7th used below the 6th, the "added 6th" actually becomes a "13th".

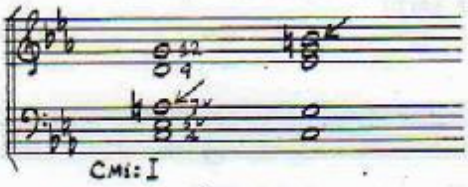
POSSIBLE, but chordal balance is not ideal.

TONIC MINOR CHORD

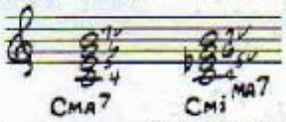
The Tonic Minor Chord has the same general construction as Major tonic chords, with the following modifications and warnings:

a. Avoid use of a *Harmonic 9th* below a Minor 3rd in the melody.

b. The Major 6th and Major 7th additions require, of course, *accidentals*:

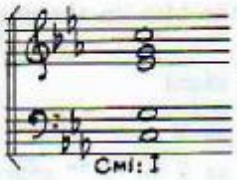


c. The tension of a Major 7th is greater in a *minor* chord, since the chord already contains an acoustical distortion (the Minor 3rd is an *altered* 5th partial), as:



More Tension

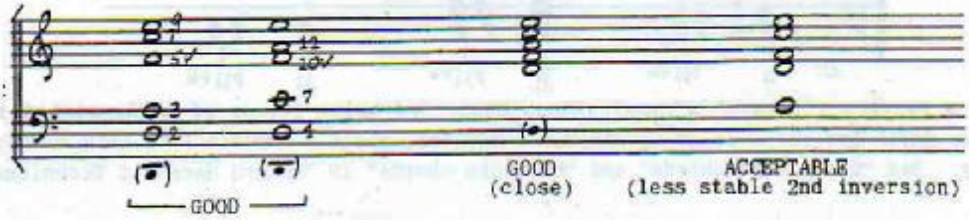
d. Because of the Minor 3rd, a minor triad has more density than a major triad. Sometimes (for instance, as a final) the Minor I chord can be effective as a triad only, such as:



Rich, warm, solid

MINOR 7TH CHORDS (as ii, vi in major, IV in minor, etc.)

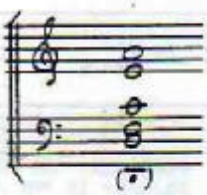
9th in melody:



GOOD (close)

ACCEPTABLE (less stable 2nd inversion)

5th in melody:



GOOD

Root in melody:

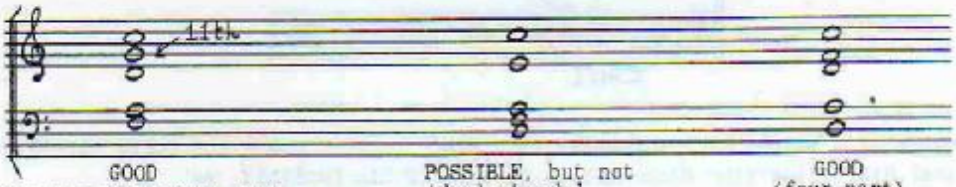
GOOD

3rd in melody:
(9th chord not practical)

GOOD
(four part)

GOOD
(close four part)

7th in melody:



GOOD
The use of perfect 11th here creates a structure in which "4ths" are prominent.

POSSIBLE, but not ideal chordal balance.

GOOD
(four part)

The student will have noticed that the majority of Minor 7th chords are "ii" chords. Thus, if a voicing of "ii" in *C* turns out to be more like "IV" in *C*, no great harm is done since they both usually perform the *subdominant function*.

Worthy of note: The "supertonic 11th" chord, with the 11th in the melody, as:

Dominant as 11th of ii chord

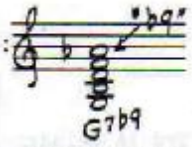
This chord can sometimes be more properly understood as a "$V^{sus.4}$" chord, but its use as a true 11th chord leading to V or to $\flat ii^{+6}$ is not infrequent. Treatment:

*The use of a Perfect 11th with a simultaneous Minor 3rd below it, or of an Augmented 11th with a simultaneous Major 3rd below it is acceptable. However, avoid a Perfect 11th with a Major 3rd simultaneously. See "Seven part chords" and "Eleventh chords" in "Modern Harmonic Technique".

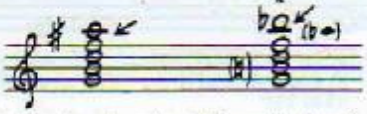
DOMINANT STRUCTURE CHORDS

Dominant structure chords enjoy more freedom and flexibility. It has been noted that the 9th is extensively used on these chords even in four part writing. Dominant 9ths are readily assimilated even into society band environments (where the use of a harmonic 9th on a I chord could cost the arranger his job). The greater freedom available with a dominant structure chord is because of its basic acoustical purity and because it is heard as a strong "leading" chord rather than a settled vertical structure.

The dominant structure is the only chord which successfully allows a Minor 9th, as:

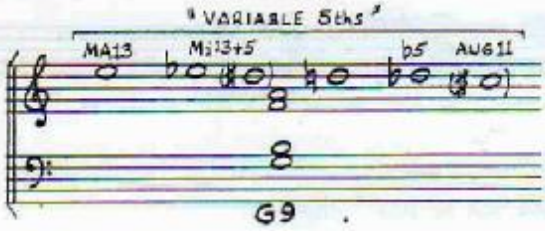


Occasionally an "augmented 9th" (or, depending on its usage, "flat 10" which is derived as an appoggiatura over the flat 9) may be used:

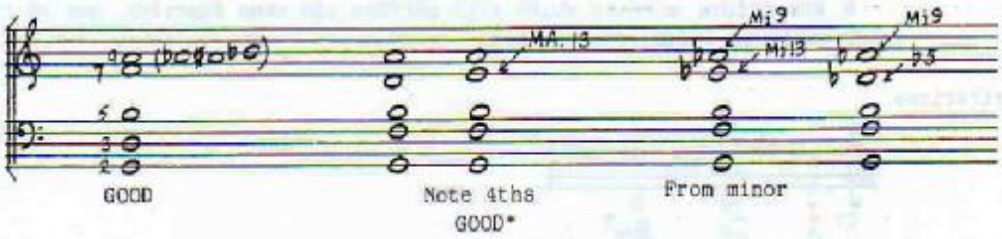


*This is sometimes called the "b10" chord, the "Blues" chord, or the "Gershwin 9th".

The Dominant chord permits, with due repect to key, a certain flexibility of the 5th. In fact, depending on the key and the voice leading, there are four "variable 5ths" to draw on:

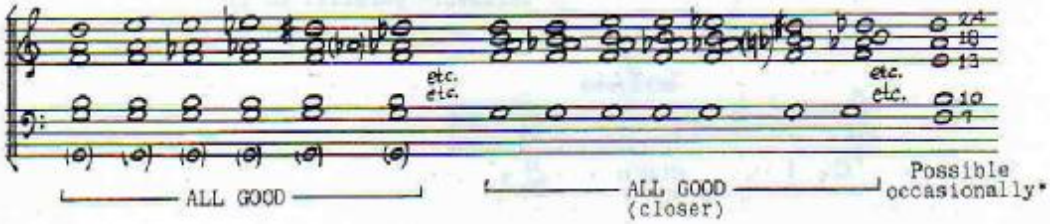


9th in melody:



*This will become "muddy" if much lower than this (acoustical root below A27½ V.P.S.).

5th in melody:



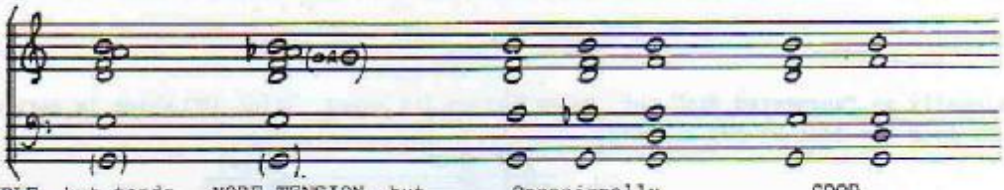
*No root, but a balanced voicing of 4ths.

Root in melody:

GOOD, but will become "muddy" if much lower than this.

GOOD—Root position, four part harmony

3rd in melody:



POSSIBLE, but tends to "crowd" the melody.

MORE TENSION, but better melodic clarity.

Occasionally possible.

GOOD (four part)

7th in melody:

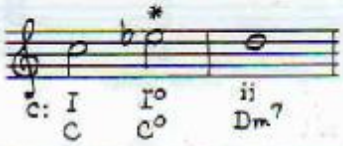
(four part)

DIMINISHED CHORDS (Diminished 7th or Mi7$^{\flat 5}$ chords)

Best solution: a. Determine the *function* the diminished chord is performing.

b. Substitute a chord which will perform the same function, but which is more adaptable to a five part voicing.

Illustrations:

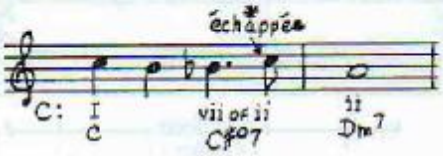


Function: Leading chromatic chord to ii

Possible alternatives: a. V$^{\flat 5}$ of ii

b. $\flat$ii^{+5} of ii

c. Chromatic parallel to ii



Function: Tonicization of ii

Possible alternatives: a. V of ii

b. $\flat$ii^{+6} of ii

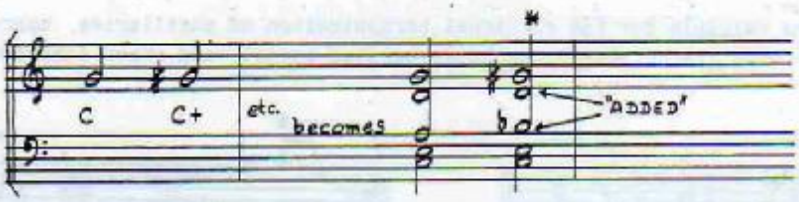
Function: "Subdominant"
Possible alternatives: *a.* V of V
b. ♭ii^{+6} of V
c. Omit ii altogether

Another solution: Add the *acoustical root* to the diminished chord, as:

This solution doesn't always work because the melody note of the resulting chord may still resist a good 9th voicing, but one of the suggested solutions should provide an acceptable answer.

AUGMENTED CHORDS

Augmented chords derive an added note or notes from the Whole Tone Scale. That is, any adjacent whole tone will add density while retaining the quality and the neutrality of the augmented chord. To illustrate:

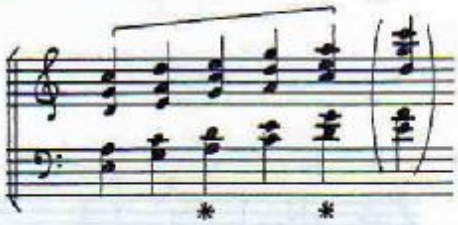


11. Irregular Structures in Arpeggios

Just as a triad may be arpeggiated:

and a four part chord may be arpeggiated:

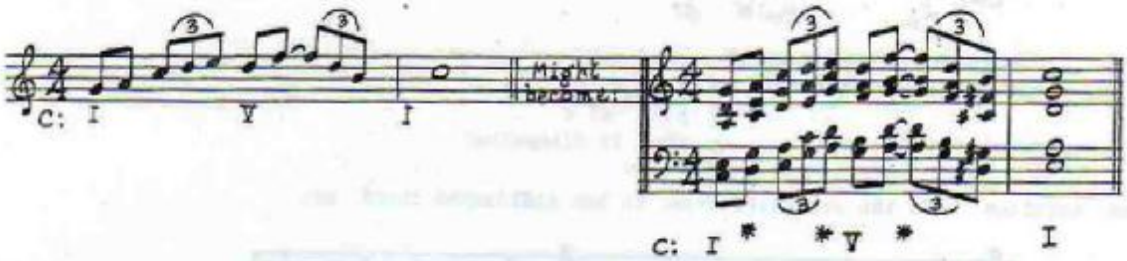
so may a five part chord be treated in arpeggio fashion:



Each part moves up or down the same number of *chordal intervals* as the melody. To illustrate:

Basic chord:

In a sectional arpeggio involving a five part chord, some unorthodox *vertical* arrangements may occur. They will be acceptable, however, as long as they are brief, and as long as they are heard only as part of the arpeggio and not as *vertical* chords. To illustrate:

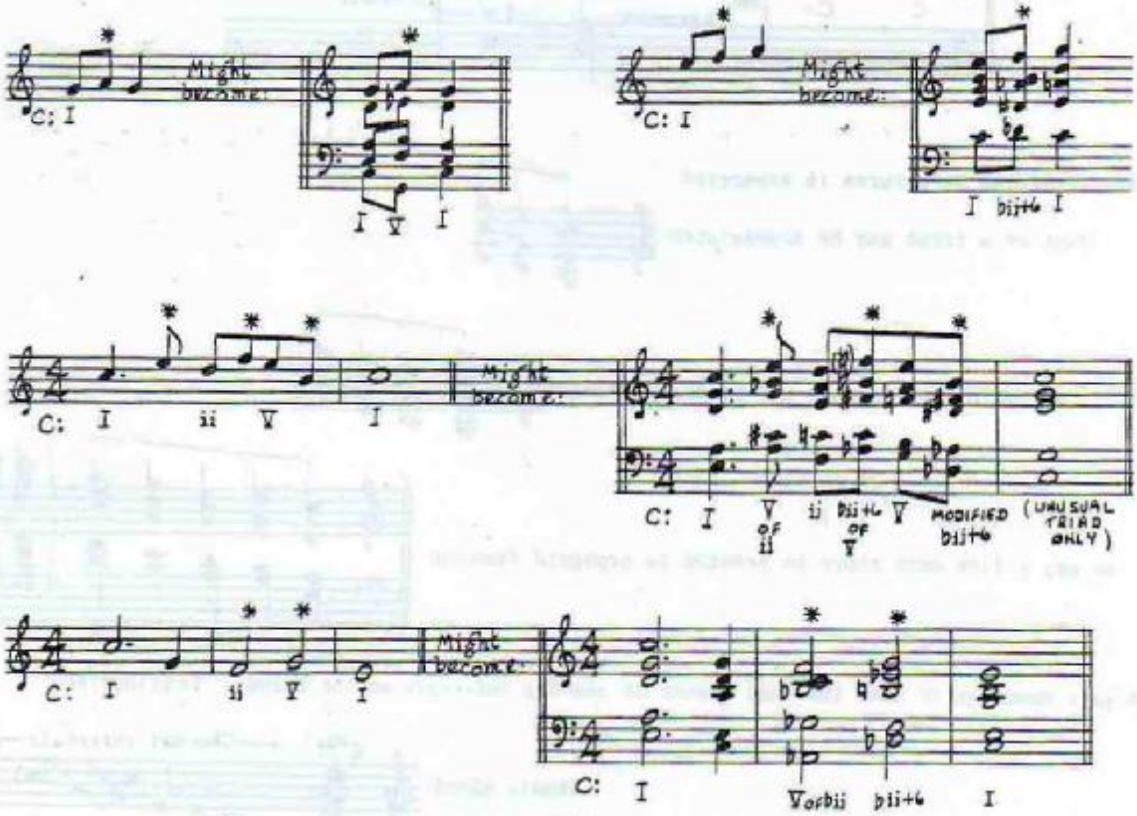


12. Modification of Harmony

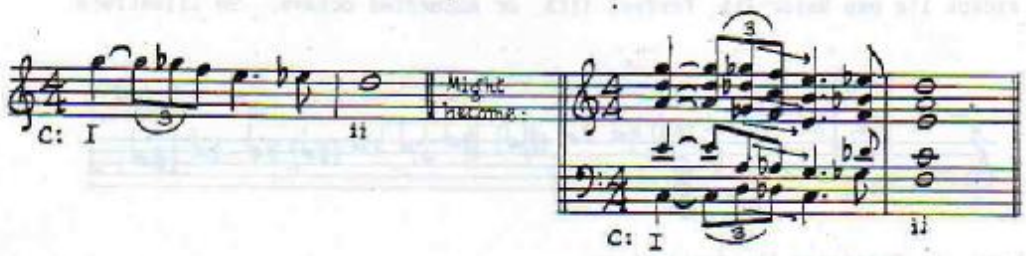
Under item "Diminished Chords", a way of procuring a more satisfactory chord for five part voicing was illustrated. This same process can be applied to other situations where the melody note resists a good 9th chord, or where the original harmony is in some way unsuited to five part voicings. The *substitute* chords will most often take the form of:

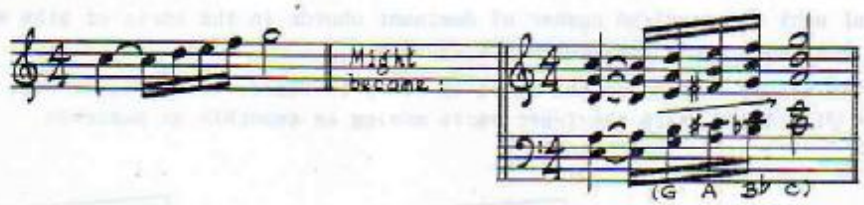
a. "V" chords leading to the destination chord.
b. "♭ii^{+6}" chords leading to the destination chord. (Tonicization)
c. Chromatic chords leading to the destination chord.

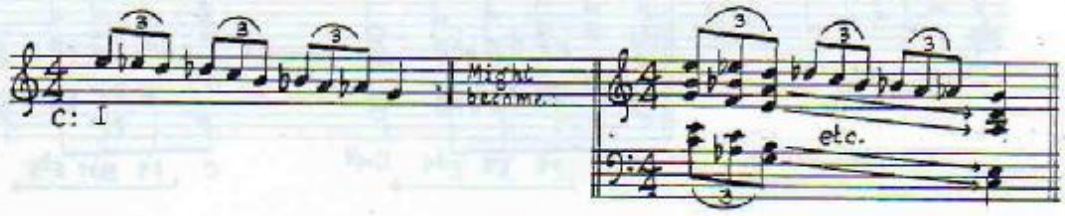
Such procedures are valuable for the sectional harmonization of auxiliaries, unprepared auxiliaries, passing tones (particularly chromatic passing tones), and other inharmonics. To illustrate:



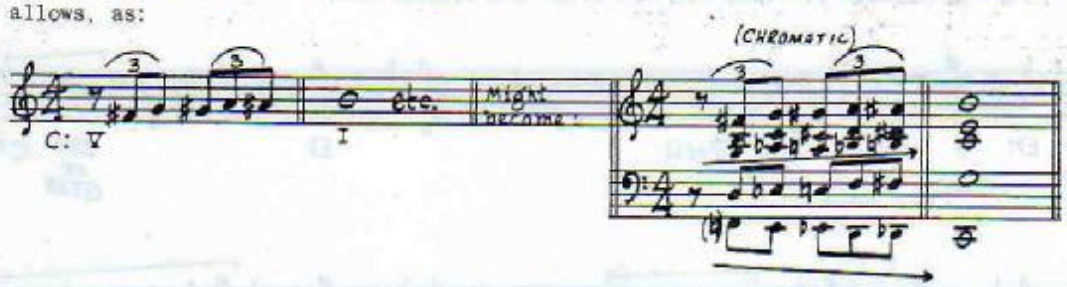
Parallel harmony is available, but diatonic parallel harmony with more than four parts may often become too tense. Consequently, parallel harmony in more than four parts is generally more successful when it is *exact* rather than *diatonic*. To illustrate:

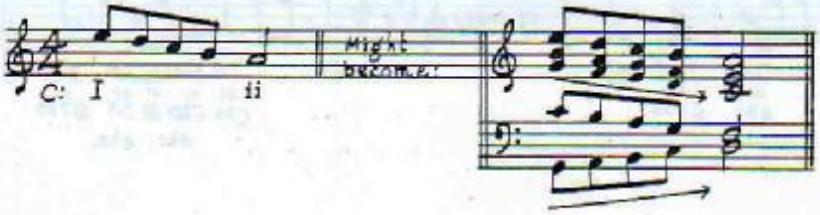


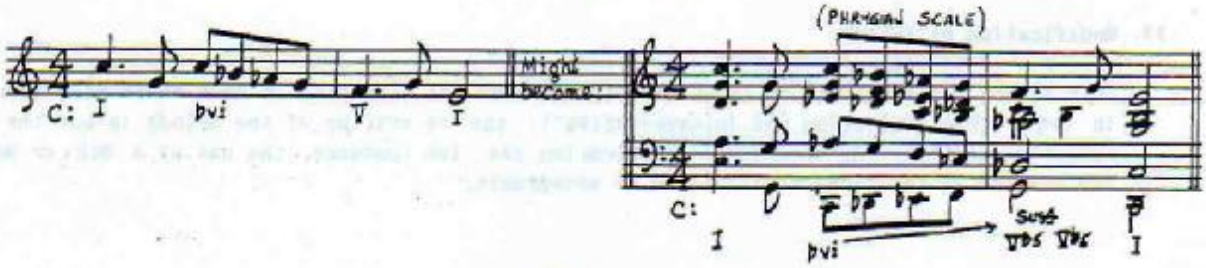




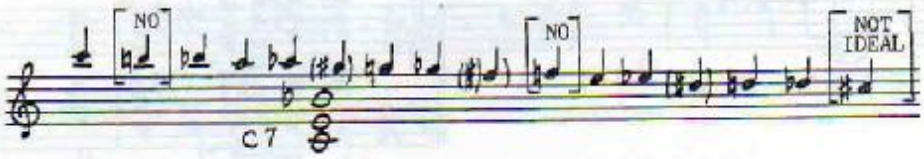
The "opposed scales" idea (See "Modern Harmonic Technique") can be valuable when the context allows, as:







The Cycle of dominant or augmented 6th chords offers a handy solution to many problems, because there are so many melody notes which will adapt to any dominant structure chord. In fact any dominant structure chord will support every note of the chromatic scale as a melody tone, except its own Major 7th, Perfect 11th, or Augmented octave. To illustrate:

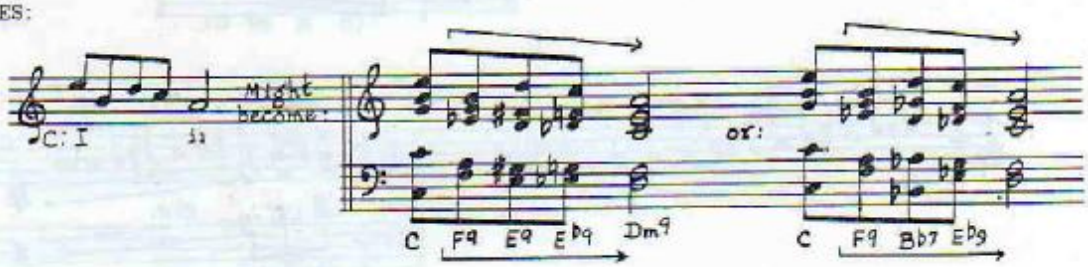


Procedure: a. Determine the destination.

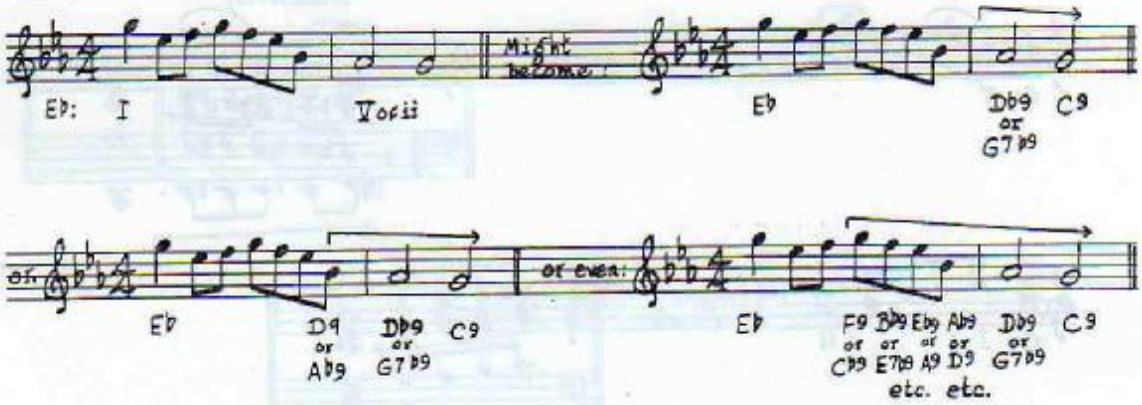
b. Count back the required number of dominant chords in the cycle of 5ths and/or the half tone cycle (augmented 6th chords).

c. *If* the melody note suits the chord in every instance, harmonize in *root position 9th chords*, with the inner parts moving as smoothly as possible.

EXAMPLES:



Note: Occasional vertical irregularities, where the melody doubles a 3rd or 7th, etc., will be acceptable provided they are brief and transitional.

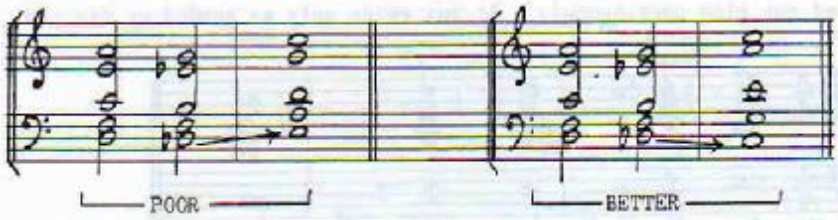


13. Modification of Melody

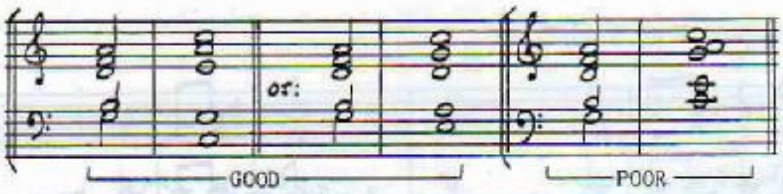
This is not a solution to be taken lightly. Unless the situation is such where variation is in order (See "Variation and Interpretation"), the re-writing of the melody is not the arranger's function. An occasional modification (as, for instance, the use of a 9th or Major 7th instead of the final tonic) could be acceptable.

B. The Horizontal Considerations

The student of harmony knows that in the traditional "part writing" style, a conflict between the interests of logical voice leading and the interests of vertical sonority is usually settled in favor of the voice leading. However, in "sectional" writing, particularly when it has the density of a five part level of harmony, *the importance of the vertical structures outweighs the importance of voice leading in the inner parts.* Part movement should be given consideration, of course, if only for ease of playing, but whenever it is necessary to sacrifice voice leading for vertical construction it is customary to do so. The logic of the BOTTOM part, particularly when it is performing a *bass* function, should be considered. To illustrate:



If there is a choice between contrary or similar motion in the outside parts, choose contrary, as:



However, as the examples above surely indicate, the logic of the INNER parts is not a major concern in this kind of "note for note" sectional writing. The reason is that they are not heard as individual horizontal parts!

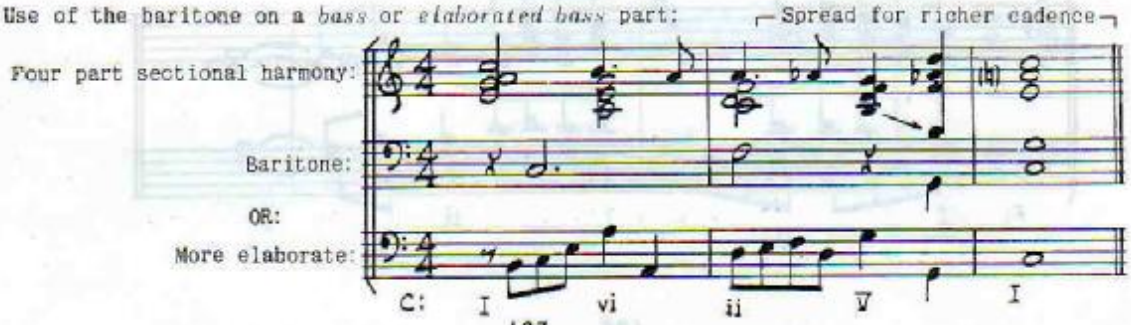
C. The Independent Baritone Part

When a baritone is available in the saxophone section, it can be given a large degree of independence. The tone quality of the baritone is such that it blends excellently with the section, and yet has enough weight to move independently with authority.

Assuming competent performance, the use of an independent baritone part (occasionally or consistently) is one of the most satisfactory saxophone techniques.

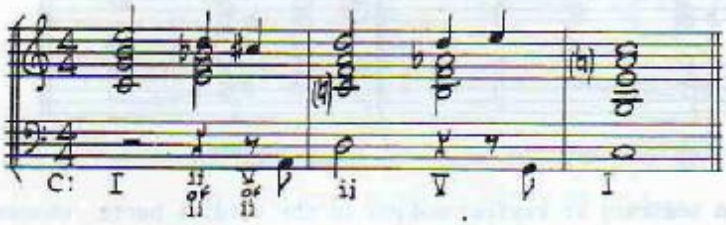
Procedures: (listed separately for investigation purposes, but are combinable)

1. Use of the baritone on a *bass* or *elaborated bass* part:



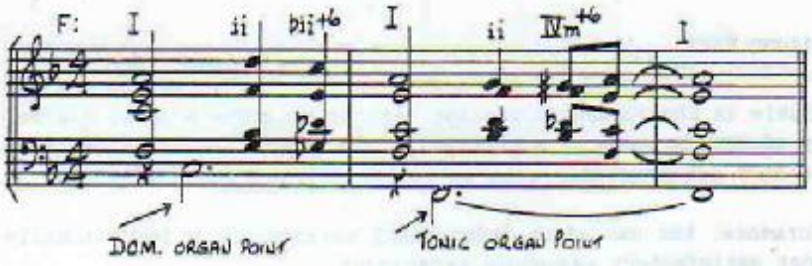
If the baritone is moving in shorter note values, it could occasionally move up into the upper parts, as:

The baritone need not play continuously. It may enter only as needed or desired:

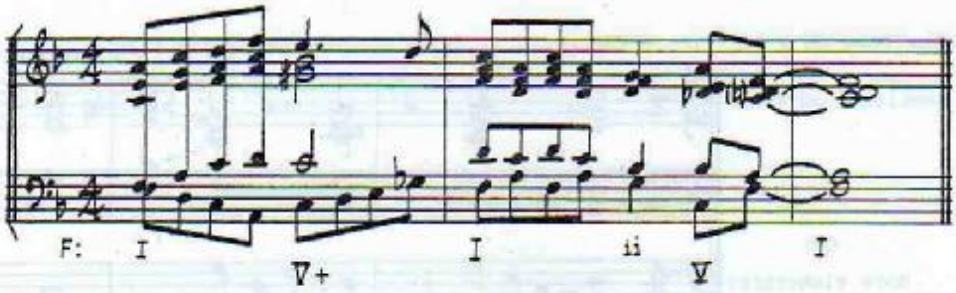


2. The baritone may perform solo "fills", as:

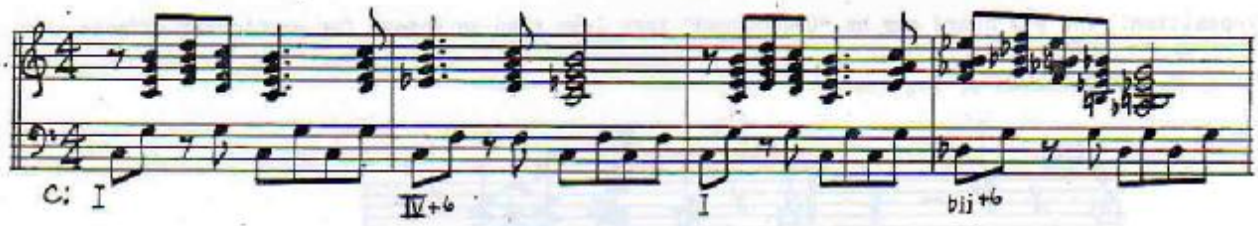
3. Brief or prolonged organ points are available, and very effective:



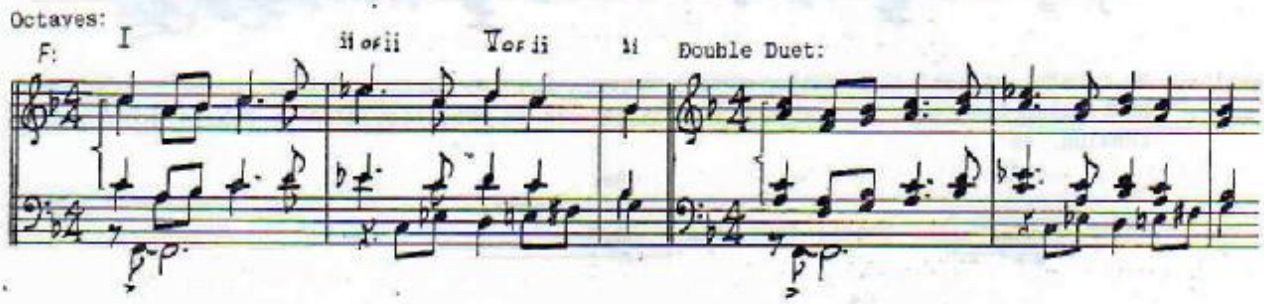
4. The independence may simply take the form of contrary motion through the chords, as:

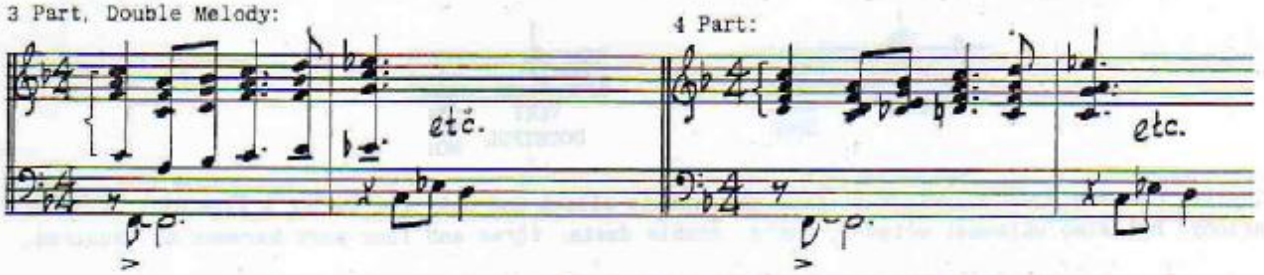


5. The use of an "ostinato" bass part is possible when the passage suggests or warrants it, as:



Independent baritone bits, such as illustrated above, may occur during a passage which is basically at a five part level, or one in which the baritone is primarily doubling the melody. The independence of the baritone may be the basic technique of the whole passage, and the independent baritone part may function against any type of technique in the upper parts, as:





Independence of the bottom part can only be successful when the bottom instrument has the flexibility of a baritone saxophone. Other situations where the technique would be practical are a bass clarinet below clarinets or a bassoon below accompanying reeds.

On the other hand, a tenor saxophone used independently below a section of saxophones is not very successful, since it lacks enough weight to be authoritative. A trombone below a brass section is not flexible enough, except for sustained organ points or *bass* figures that do not move too quickly.

D. Five Parts Within An Octave

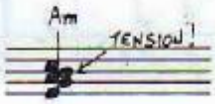
Proposition: The 9th chord may be "telescoped" into less than an octave for particular effects, as:

1. Emphatic chords or figures:

2. A compact, light, driving passage:

Caution: Be careful of half tone relationships between any two parts, except if calculated for particular tension. Occasionally an 11th can be substituted for a 9th to avoid undue tension, as:

This: 

rather than this: 

Because of partial numbers, acoustical roots, and other overtone series considerations, these tight voicings are more satisfactory in the treble range, as:

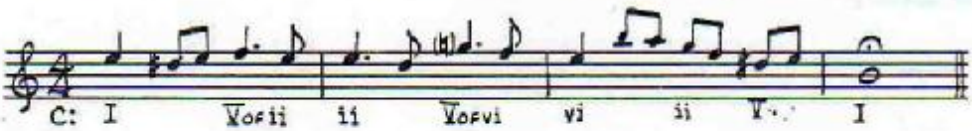
Finally, remember that a section of five instruments allows not only the use of a five part level of harmony, but also unisons, octaves, duets, double duets, three and four part harmony as required.

ASSIGNMENT 6

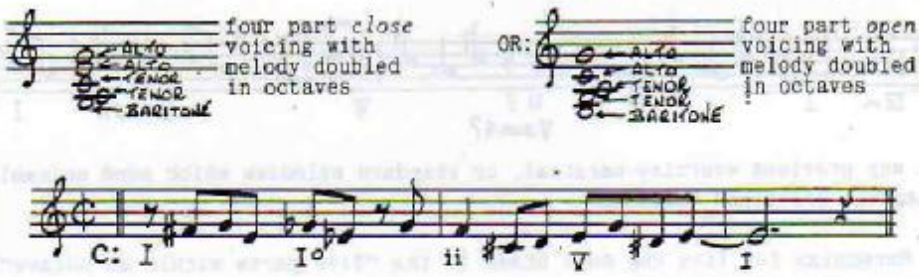
1. Lead is given. Harmonize for clarinet lead over four saxes, with doubled melody at the octave, as:

melody doubled in octaves

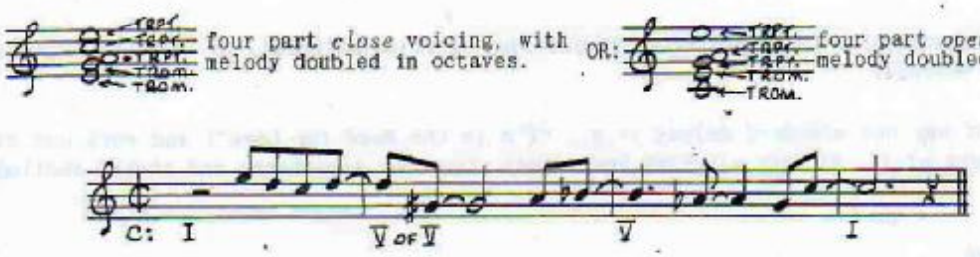
Use string bass and chord symbols also.



2. Lead is given. Harmonize for five saxes with doubled melody at the octave, as:

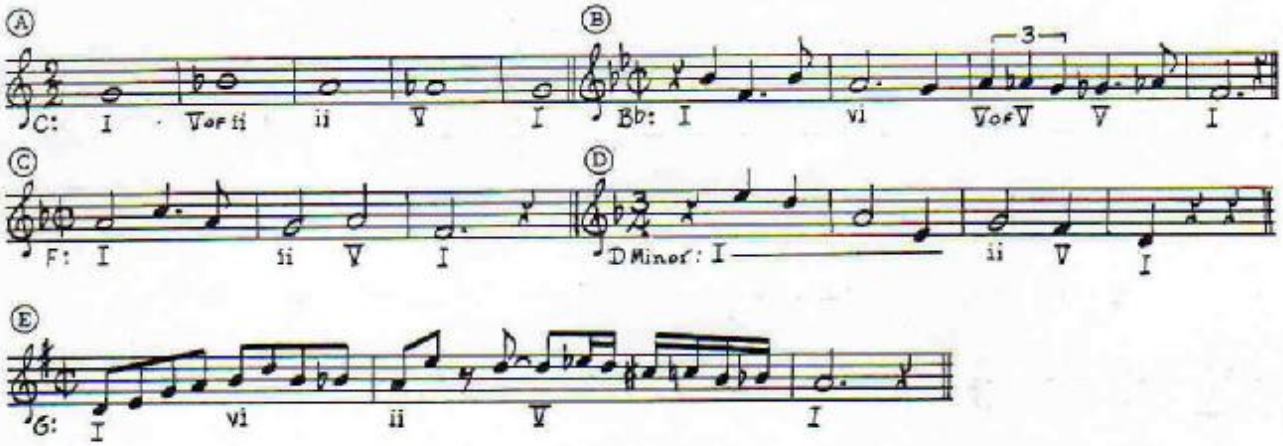


3. Lead is given. Harmonize for five brass (3 trumpets, 2 trombones) with doubled melody at the octave, as:



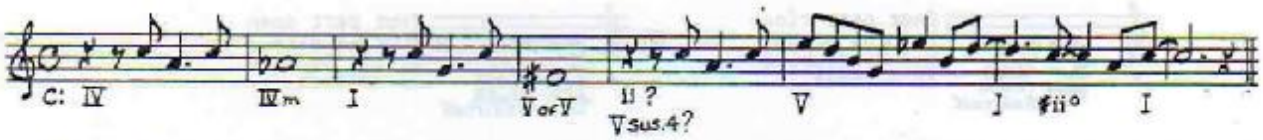
Also: Harmonize any previous exercise material, and eight bars or so of a few standard melodies, in the "five part, doubled melody" style. Include string bass and chord symbols.

4. Leads are given. Harmonize each for five saxophones at a *general* five part level of harmony (i.e., use 9th chords, etc., wherever practical and effective, in a fairly *open* style). Include string bass and chord symbols.



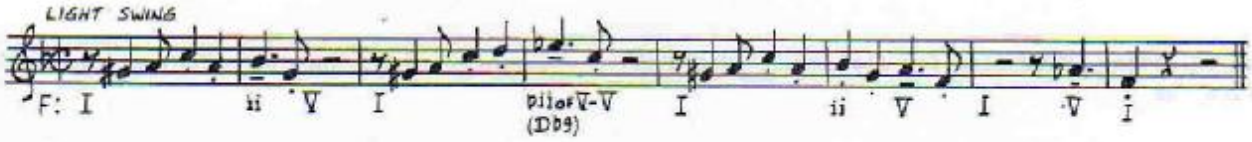
Also: Harmonize any previous exercise material which seems suitable, and eight bars or so of any standard melodies which seem suitable, in a general "five part harmony" style.

5. Lead is given. Complete for five saxophones utilizing an independent (or mainly so) baritone part. Include string bass and chord symbols.



Also: Harmonize any previous exercise material, or standard melodies which seem suitable, with an "independent baritone" technique.

6. Lead is given. Harmonize for five cup mute brass in the "five parts within an octave" style. Include string bass and chord symbols.



Also: Try this harmonization technique with any previous exercise material, or standard melodies which seem suitable.

7. Take eight bars of any one standard melody (e.g., "I'm in the Mood for Love") and work out six different treatments of it, without altering the melody, for five saxophones and rhythm section.

SEE SAMPLE SOLUTIONS

PART THREE

VARIATION AND INTERPRETATION

Introductory

The term "arranging" implies a certain amount of personal variation and interpretation. The arranger starts with the melody line and the basic harmonies intended by the composer; what happens from there on is more or less up to him. Arranging, therefore, contains elements of composition. It is not in the scope of this text (or perhaps any text) to teach "how to compose", but a few clues relating to the compositional aspects of arranging can be examined.

The problems of background writing, form, introductions, etc., will be investigated at a later point, as will the problems of full orchestra scoring. This area of the text concerns itself with *arranging* for one "front line" section.

The type of variation and interpretation that can be applied to a melody depends, to a great degree, upon the following considerations:

1. *The instrumental combination.* The characteristics of the instruments must be considered. For instance, a florid and "busy" variation which might be successful with reeds could be disastrous with brass.
2. *The style, if any, of the orchestra.* "Stylization" is sometimes found among individual orchestras, and even where no specific "style" exists there are broad areas of fashion. For instance, an arrangement for a society band will be much more restricted than one for stage or ballroom use. A commercial arranger should be acquainted with the different mannerisms and characteristics of the various areas in which he may be called upon to work.
3. *The personal taste of the arranger.*

The wisdom of using any variation at all will depend on the point in the work where the variation is to be used. Without making a law, it can be safely said that arranging is similar to the "Air and Variations" idea, where variation is more likely to occur after the basic theme has been heard at least once.

Chapter 9

THE DEVICES OF VARIATION

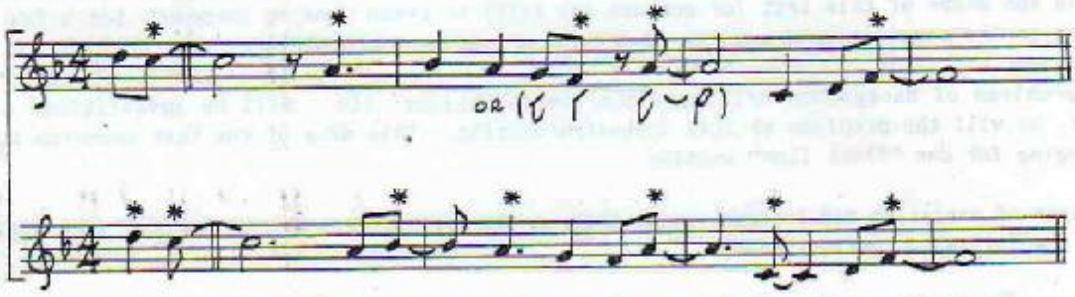
I. RHYTHMIC VARIATION

A. Syncopation (Displacement of the natural rhythm so that the accents fall on weak beats or fractions of beats.)

Many melodies of a jazz, or jazz influenced nature contain syncopation in their original forms. When an arrangement is to be of a rhythmic character, it is usually desirable to inject a rhythmic quality into a melody which originally contains little or no syncopation. This can be done through a judicious application of *rhythmic anticipations*. By way of illustration, note how the following melody takes a more rhythmic feeling through the use of rhythmic anticipations:

Original:

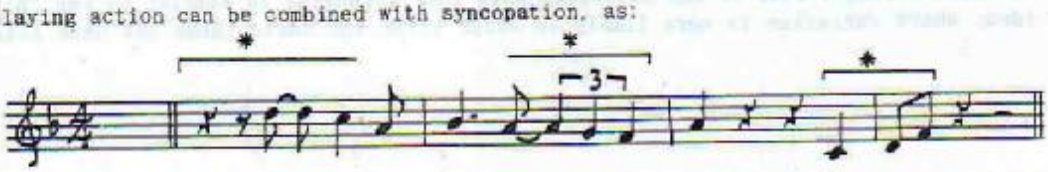
Applied Syncopation:



B. Rhythmic Variation

Displacement of beats with methods other than syncopation can be used, as:

and, delaying action can be combined with syncopation, as:



Displacement of rhythm through *anticipating* or *delaying* actions does not change the "shape" of the melodic line. The only restrictions on the use of such rhythmic alteration are those placed by the boundaries of taste and environment. It should be remarked that syncopation is subject to a variety of interpretations in performance. In fact, most *jazz* phrasing treats "$\frac{4}{4}$" more in the manner of "$\frac{12}{8}$". For instance, a passage such as the following:

will be played more or less as:

There has been a tendency in some areas recently to adopt a notation which is more consistent with jazz phrasing. The "$\frac{4}{4}$" time is usually retained, but "triplet" figuration is employed, as:

There is merit in this when the performers are concert musicians who may not "feel" the idiom, since an accurate reading of this more involved notation will produce something a little closer to the desired style. However, in the normal course of writing, the brass, reed and rhythm players will play idiomatically without the complex notation.

Rock playing uses a more *legitimate* interpretation of rhythmic figures. There is an underlying feeling of *even eighth notes* and all notes are played just about exactly as they are written.

II. SOME IDIOMATIC RHYTHMIC FIGURES

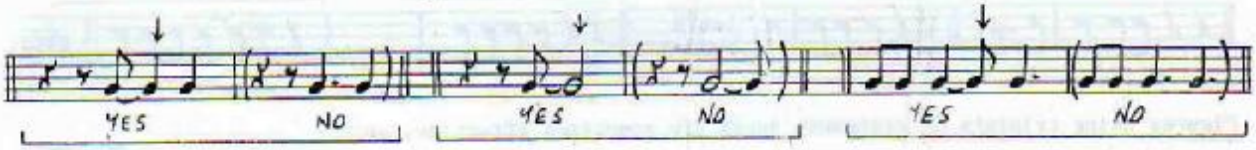
The following are some of the rhythmic figures used in jazz, jazz influenced, and rock music. The student should become familiar with them, and should be able to sing or play them in both jazz and rock interpretations. He should also listen for them in recorded music.

NOTE:

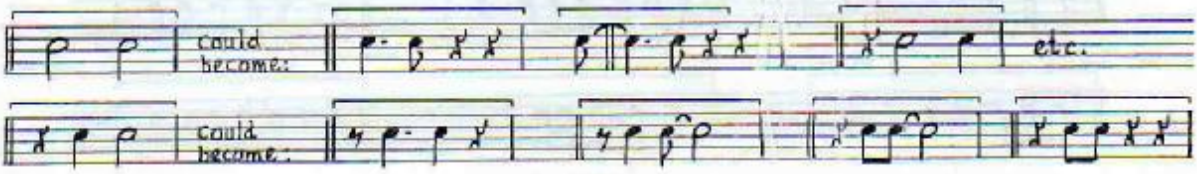
1. All eighth notes which are clearly an anticipation of the next beat will be harmonized with the chord *from the next beat*, as:

rhythmic anticipation of the next beat. If harmonized, the harmony will be the chord *from the next beat!*

2. The syncopation is written so that the important third beat of the bar is visible, as:



TWO NOTE FIGURES:



could become: etc.

could become: etc.

THREE NOTE FIGURES:

could become:

could become: etc.

could become:

could become: etc.

could become: etc.

FOUR NOTE FIGURES:

could become:

ox could become:

could become: etc.

could become: etc.

ox could become: etc.

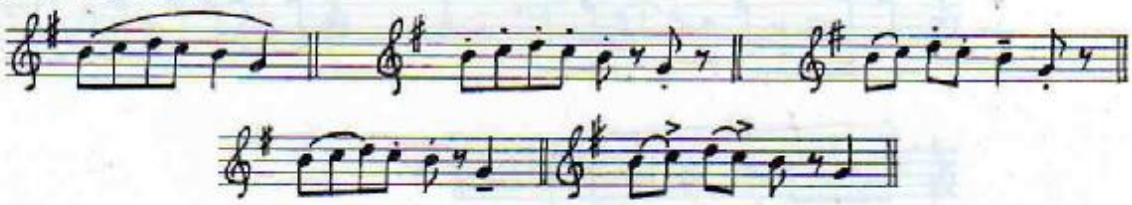
Figures using triplets or sixteenth notes are sometimes effective, as:

III. VARIED ARTICULATION

The articulation of a melody is a factor of its character. Re-articulation of a melodic phrase through accents, slurs, rests, etc., provides a variation device. To illustrate:

Original:

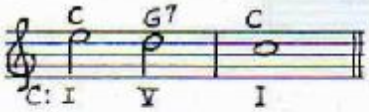
Varied articulations:



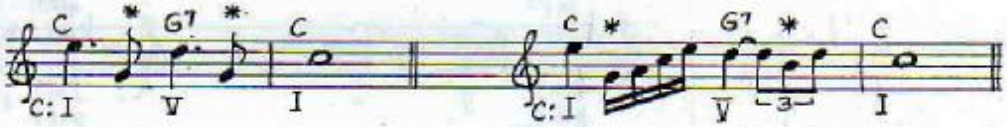
IV. MELODIC DECORATION

Means: a. Addition of subsidiary chordal tones.

Original:

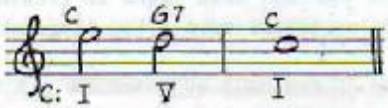


With subsidiary chordal tones:

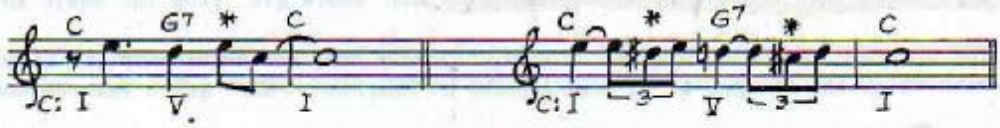


b. Addition of inharmonics (non-chordal tones).

Original:



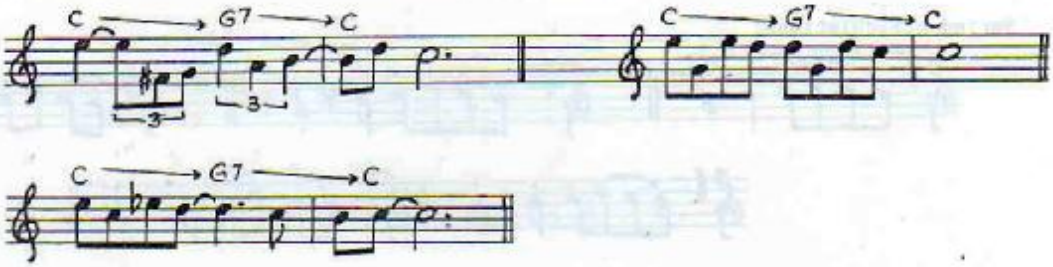
With addition of inharmonics:



c. A combination of inharmonics and subsidiary chordal tones.

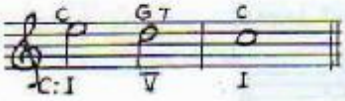
Original:

Decorated:

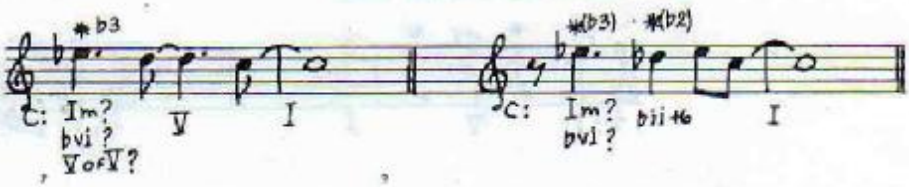


d. Modal alternations can occasionally be effective, as:

Original:



Modal variants:



Just how far these variation techniques can be carried again depends on the instruments involved, the style intended, the point in the arrangement at which the variation is being used, and the dictates of taste. In all of the above examples, care has been taken to retain the essential identifying points of the basic melodic phrase. This is necessary more often than not.

Beware of over-decoration! Usually the use of rhythmic adjustments (rhythmic anticipations, etc.) will produce a better result than the use of extensive melodic embellishment. This is particularly true for brass, but even when writing a variation for saxophones (which ARE capable of fast and florid movement) be primarily concerned with the *rhythmic* result of your interpretation. Use no more notes than are essential to your idea and, above all, keep the music moving ahead!

The presence of syncopation and idiomatic rhythms does not change any of the melodic considerations with which the student of harmony should be familiar. Here are a few reminders:

a. Activated weakness (i.e., action at weak beats and weak bars) is, in any idiom, still the most reliable way of providing vital "forward motion".

b. To avoid monotony in your variation, beware of:

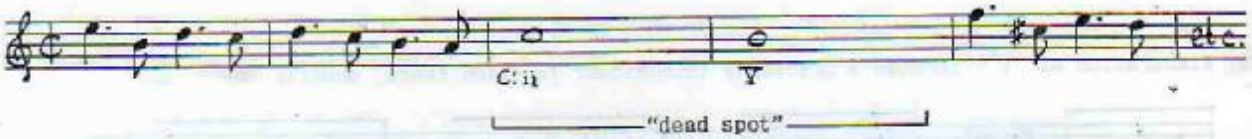
Repeated high points
Repeated low points
Repeated turning points
Overuse of any one rhythmic pattern.

c. Provide for one climax (high point). If, for instance, you are writing a sixteen bar variation the climax is most likely to be effective towards the middle or end of the second eight bars.

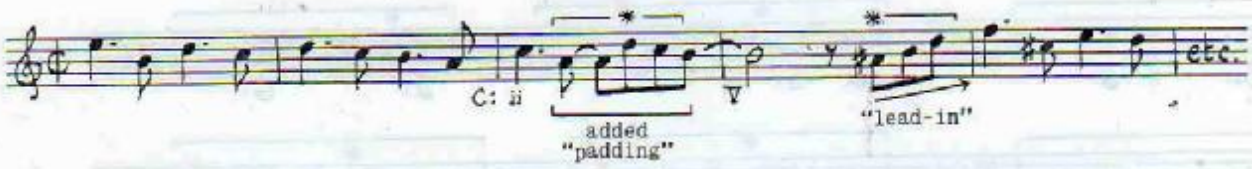
d. Do not overuse your short note values. For an example, if eighth notes are to be the shortest note values, do not use too many of them. Particularly, *avoid using too many of them too soon*, because if you stop using them the music will die and if you continue to use them the music will babble. Therefore, start relaxed, easy, and not too high, so that you have something to build from and to.

V. MELODIC RHYTHM

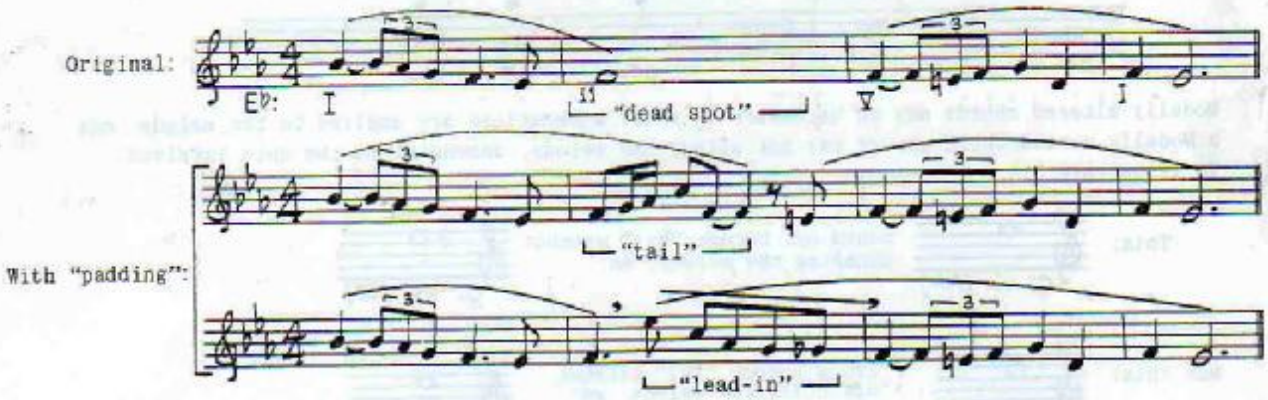
In the usual commercial or jazz arrangement, the basic rhythm is provided by a section of performers engaged for this purpose. Nevertheless, it may often be necessary or desirable to achieve a better balance in the purely *melodic rhythm* to avoid "dead spots". These dead spots will occur when a melody employs occasional sustained notes in a passage which is primarily in shorter note values, as:



"Holes" such as this may be filled with another section of the orchestra (as brass figures against saxophone melody, or vice versa) or by devices such as the independent baritone part. They may also be filled, to taste, with activity in the same section through the application of subsidiary chordal tones and/or inharmonics. Here is a sample solution to the above problem:



Very often long notes of this type are found at the end of a phrase or motif. The "fill-in" can take the form of a "lead-in" (anacrusis) to the next phrase or it can be a "tail" added to the previous phrase. To illustrate:

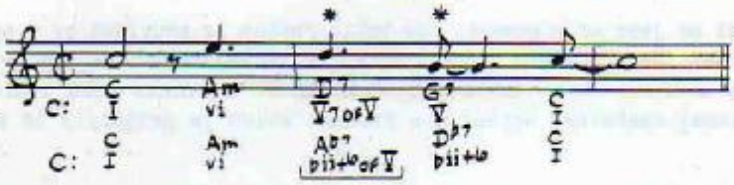


VI. HARMONIC VARIATION

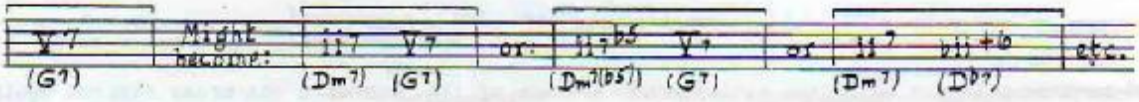
A melody may be re-harmonized, either partially or throughout a complete passage, as a means of variation. The chords chosen must, of course, support the melody acceptably and form a logical progression. The guiding principles are harmonic knowledge and taste (which necessarily implies the use of the ear). To change a chord from the original merely for the sake of change is usually pointless; changes should be made only if they serve a clear, harmonic, orchestration or emotional aim.

Harmonic variation and elaboration will most likely involve the devices with which the student should be familiar, as:

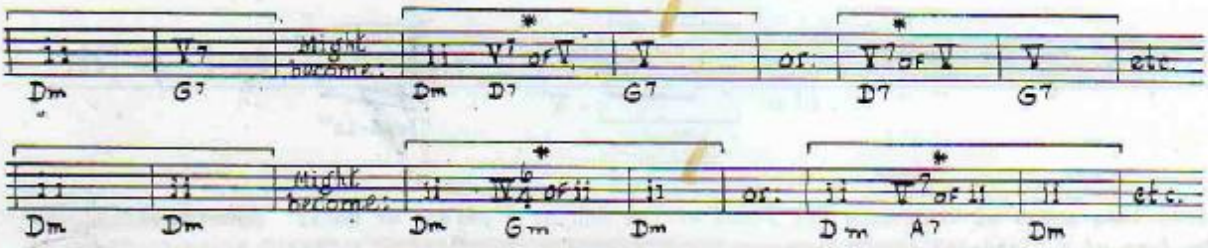
a. Use of the augmented 6th chords, particularly "ii^{+6}", instead of "V" chords.
To illustrate:



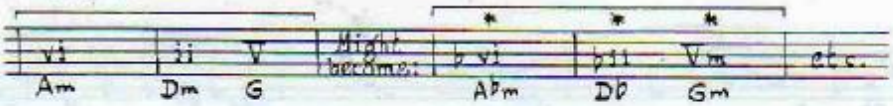
b. Elaboration of "V^7" through a preceding *subdominant function* chord, usually "ii^7", as:



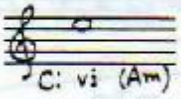
c. Use of added *tonicization*, either in a "leading" or "internal elaboration" sense, as:

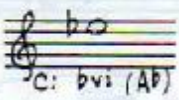


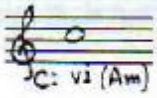
d. Modal variants, as:

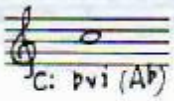


Modally altered chords may be necessary if Modal alterations are applied to the melody, but a Modally varied chord may or may not affect the melody, depending on the note involved.
To illustrate:

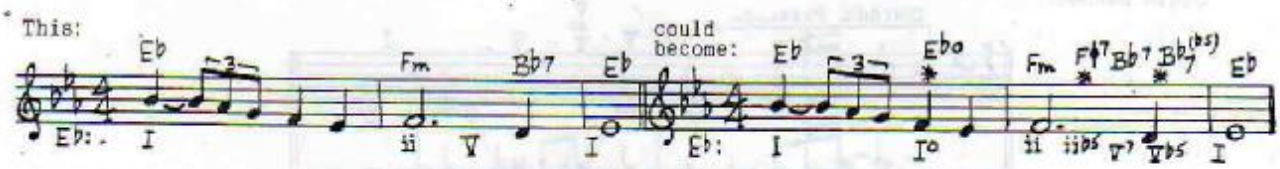
This: 

could *not* become "♭vi" without changing the melody, as: 

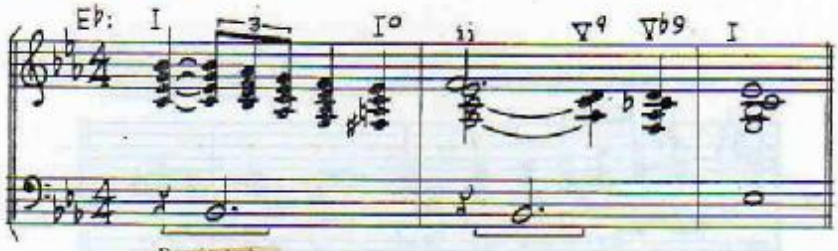
but this: 

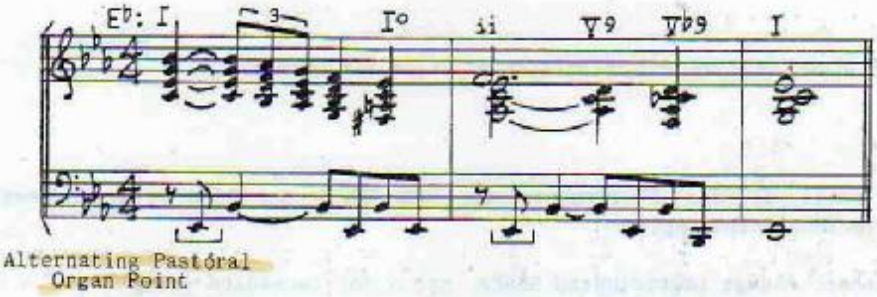
could become "♭vi" without affecting the melody, as: 

e. Use of added chromatic passing chords, etc. To illustrate:

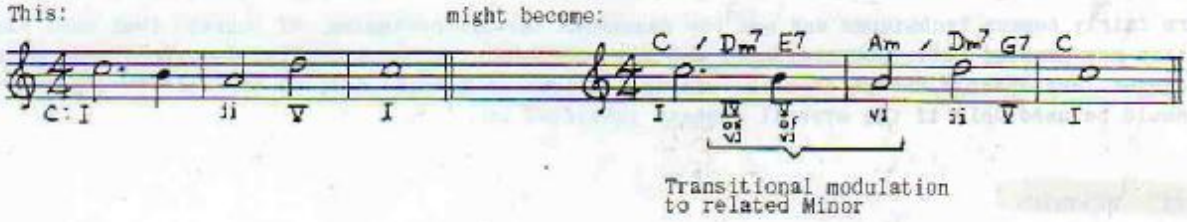


f. Application of Organ Points, as:

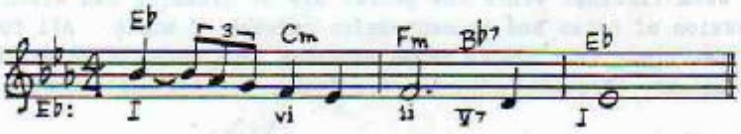




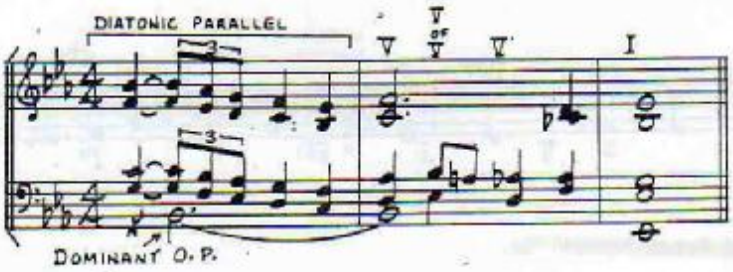
g. Transitional modulations (generally to closely related keys) if the melody suggests or allows it, as:



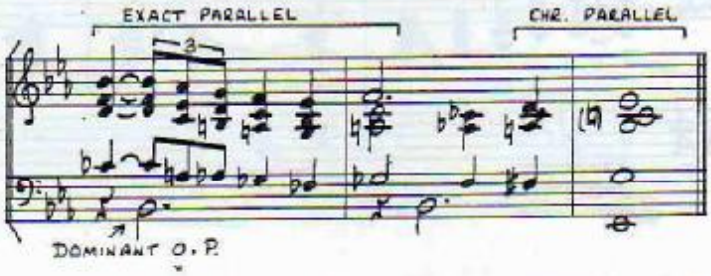
h. Parallel Harmony techniques. For instance, this:



could become:



OR:



i. Any and all other devices and techniques of organized harmony.

Addendum

All devices of variation, melodic and harmonic, are combinable; but discretion and restraint must be exercised. Variations which employ:

Rhythmic change (anticipated beats, etc.) *for increased swing,*
Articulation adjustments,
Added "padding" to avoid dead spots,
Melodic decoration for mobility,
Occasional "functional" harmonic substitutions (e.g., "♭II^{+5}" for "V", etc.)

are fairly common techniques and not too dangerous (always presuming, of course, that such variations are handled well, not overdone, and are acceptable in the established style of the music). However, any drastic change from the original melody or harmony will be immediately apparent and should be used only if the overall context justifies it.

VII. DYNAMICS

The student who is not acquainted with the various dynamic markings, and the indications for accents, slurs, shakes, drop-off, etc., should take steps to meet this need. Do not hesitate to indicate any and all dynamics as seem fitting, since the proper use of dynamics can often mean the difference between a mere succession of notes and an expressive passage of music. All too often, the amateur or semi-professional performer will ignore these markings, but there is no excuse for their omission by the arranger or composer. Provided they are necessary, it is usually better to use too many than too few markings.

ASSIGNMENT 7

1. Take eight bars or so of three or four standard melodies which contain little or no syncopation in their original forms and rewrite each a few times in more rhythmic forms, through the application of syncopation. Exploit, in particular, the "rhythmic anticipation". Do not make any substantial changes in the actual melodic shape.

2. Work out half a dozen variations of the following phrase, utilizing judicious melodic decoration as well as rhythmic modification and articulation adjustment. Indicate chord symbols, particularly if any variation requires modification of the given progression.

3. Take:

   a. Sixteen bars of any standard tune which is adaptable to rhythmic treatment (e.g., "The Lady is a Tramp") and write a rhythmic version of it for trumpet, alto and tenor saxes, trombone, baritone, and rhythm section. Consider it to be the opening chorus of a jazz arrangement.

   b. Sixteen bars of any standard tune which is adaptable to rhythmic treatment (e.g., "I May be Wrong") or of a jazz "head", and write a rhythmic version of it for five brass (3 trumpets, 2 trombones) and rhythm section. Consider it to be the first chorus of a stage band arrangement.

   c. Sixteen bars of a "ballad" melody (e.g., "I Cover the Waterfront") and write a variation of it for five saxophones and rhythm section, suitable for the second chorus of a stage band arrangement.

   d. Sixteen bars of a "ballad" melody (e.g., "I'm in the Mood for Love") and write a modified version of it for four saxophones (2 altos, 2 tenors) and rhythm section. Consider it to be the first chorus of a stage band arrangement.

   e. Sixteen bars of any standard tune which is adaptable to rhythmic treatment (e.g., "Sometimes I'm Happy") and write a rhythmic version of it for three trombones plus string bass and drums. Consider it to be the second chorus of a commercial jazz arrangement.

PART FOUR

BACKGROUNDS

INTRODUCTORY

Before examining how the various sections of the orchestra are combined into a unified whole, the general principles of background writing will be investigated. Background writing is not only the procedure of providing accompaniment to a vocal line, or other soloist, but it is also an important technique in the combining of the sections.

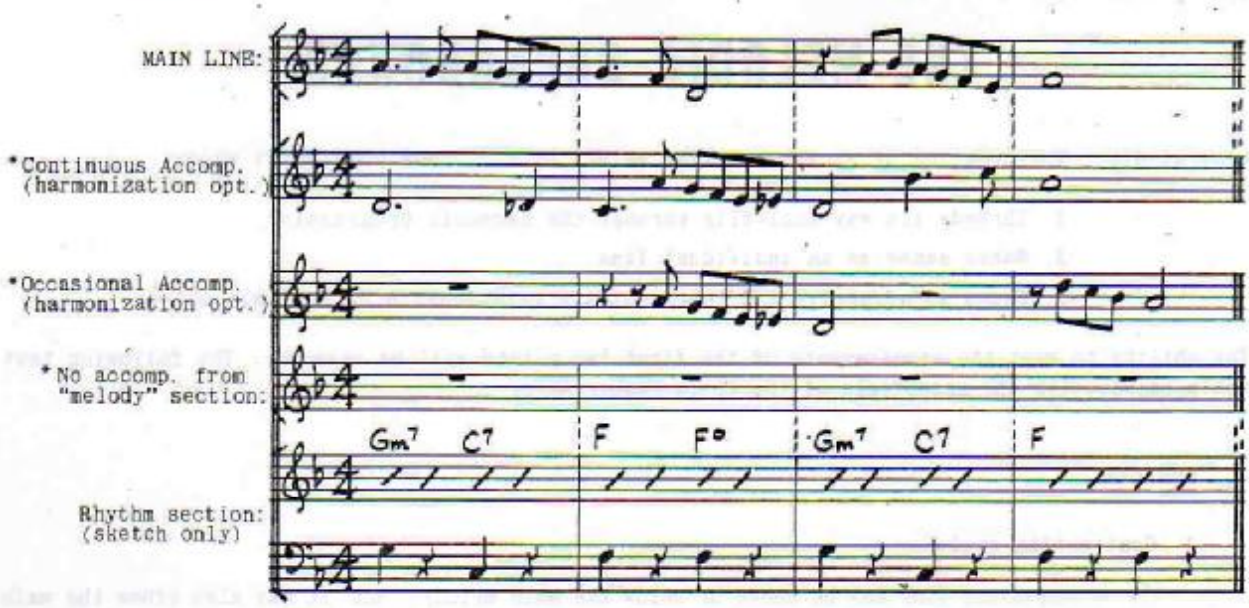
Backgrounds, accompaniments, and "settings" in general are the very essence of arranging. Detailed instructions are not possible because this area of writing is so largely dependent upon factors of instrumentation, tempo, style, functions, context, and personal musical taste and inventiveness. Therefore, the following text will be confined mainly to generalities and to technical considerations.

Point 1.

A vocalist, or other soloist, often performs with no other accompaniment than that provided by the rhythm section. Since virtually all instrumental combinations in the fields with which this text is concerned will contain some sort of rhythm section, it follows that a background need not involve any of the "melody" sections at all. It can be simply left to the rhythm section.

Furthermore, even when a background *is* written for one of the melody sections, it need not be continuous. The use of "rests", short or prolonged, is entirely in order since the rhythm section will be providing a more or less continuous accompaniment.

To illustrate:



*Each type is available.

The rhythm section players will elaborate and embellish the sketch according to their taste and abilities.

Point 2.

Backgrounds fall into one of the following *general* categories:

Melodic: In which the background has individual melodic stature.

Harmonic: In which the background is primarily concerned with harmonic support, through sustained chords, etc.

Rhythmic: In which the background is primarily concerned with aiding and contributing to the rhythmic quality of the arrangement.

These three categories overlap. For instance, a *melodic* or *harmonic* background may have a rhythmic quality, and vice versa, or a *harmonic* or *rhythmic* background may have some melodic significance. Even an eight bar background may have characteristics of all three types.

Chapter 10

THE MELODIC BACKGROUND

General Aim: The creation of an accompanying melody (i.e., "countermelody") which:

1. Threads its way logically through the harmonic progression.
2. Makes sense as an individual line.
3. Shows an effective and complementary relationship to the main melody.

The ability to meet the requirements of the first two points will be assumed. The following text deals mainly with the essentials of the third requirement.

A. CONTRAST

1. Contrasting register

The accompanying line may be above or below the main melody, and it may also cross the main melody when it is melodically logical to do so. However, if the main melody is in a low register (as a male vocal, trombone solo, tenor saxophone solo, etc.), the accompanying line will likely be situated *above* it. If the main melody is in a higher register (as a female vocal, trumpet solo, clarinet solo, etc.), the accompanying line will likely be *below* it.

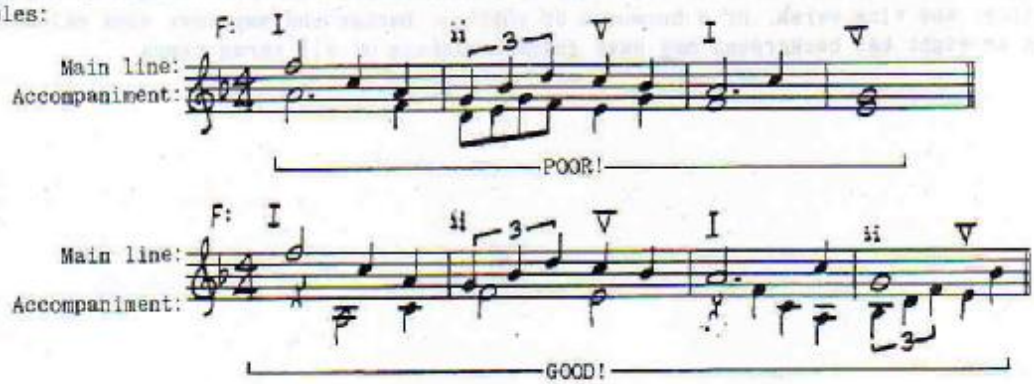
2. Contrasting tone color

As a general rule (only general!), a male vocal will be accompanied best with lighter tone colors, while a female vocal will contrast well with deeper accompanying shades. In an instrumental situation, it is usually inadvisable to accompany a clarinet with clarinets, a trumpet with trumpets, etc. Rather, instruments of a different family, or of different weight and color in the same family, will provide the more desirable contrast in color.

3. Contrasting activity

It is almost always desirable to have a contrast in shape and activity between the main and accompanying lines. The devices of contrast are:

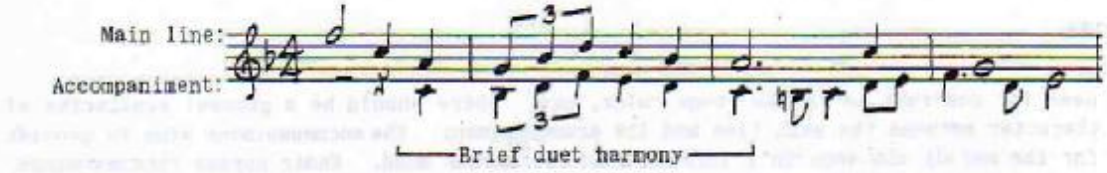
a. *Oblique Motion* means, simply, that when the main line is "busy", the accompanying line should be passive; and when the main line comes to a point of rest, or a sustained area, more activity is desirable in the accompaniment. For illustration, compare the following examples:



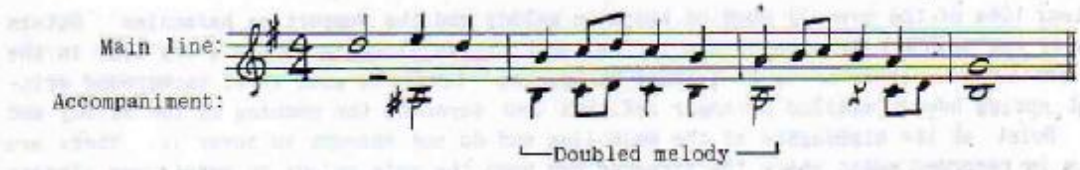
b. *Contrary Motion:* It is impossible, and undesirable, to have *every* movement in contrary motion. However, as a general principle, particularly at points where the main melody is taking a pronounced upward or downward leap or arpeggio, contrary motion in the accompanying line is preferable.

c. *Contrasting Rhythm:* The countermelody should *not* move in the same note values as the main line, unless briefly. To illustrate:

There may be occasions, however, where a "duet" harmony effect is desired, as:



or where a passage of "doubled melody" is desired for emphasis, as:



These are exceptions to the rule. In most situations, it is wise to avoid too much rhythmic similarity between the lines.

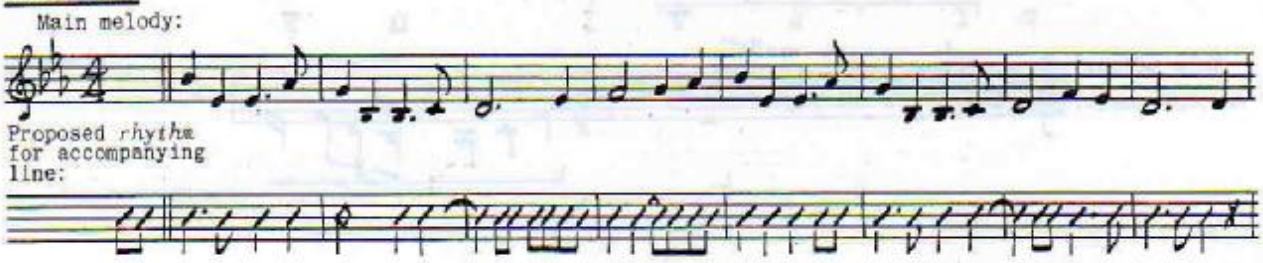
d. *Conflicting Entry:* Start the countermelody after or before the main line rather than simultaneously with it.

One of the most effective and reliable ways to write a countermelody is to isolate and plot its "rhythm" first. The procedure:

FIRST STEP: Calculate a rhythm for the countermelody which will contrast with, and balance with, the rhythm of the main melody.

SECOND STEP: Find notes which will yield a logical line, agree with the harmony, and show a good relationship to the main melody. To illustrate:

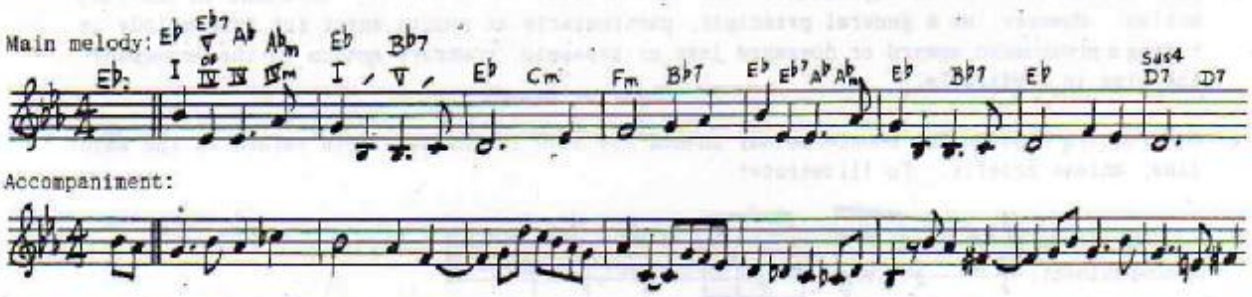
FIRST STEP:



SECOND STEP:

Main melody:

Accompaniment:



If some modification of the original proposed rhythm is necessary in working out the actual accompanying melody, no harm is done. The use of a rhythmic approach, however, has the advantage of isolating the vitally important rhythmic relationship of the two lines.

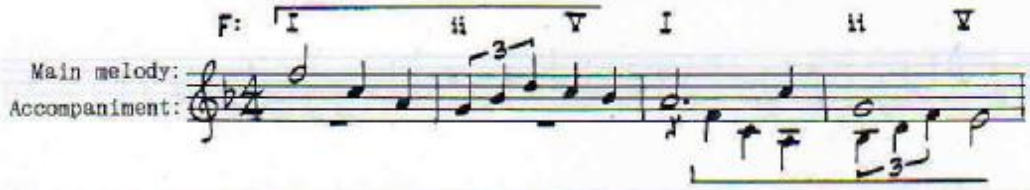
B. SIMILARITY.

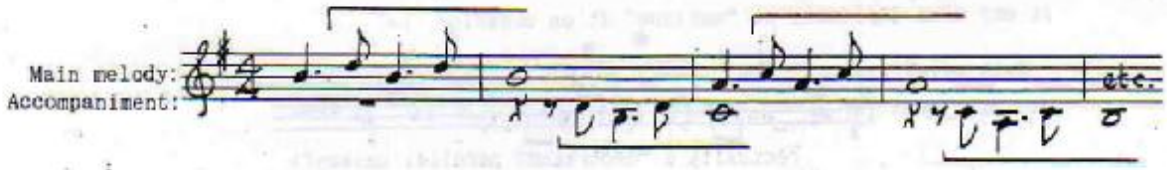
Despite the need for contrast in rhythm, tone color, etc., there should be a general similarity of quality and character between the main line and its accompaniment. The accompaniment aims to provide a "setting" for the melody and shouldn't introduce an extraneous mood. Under normal circumstances, for instance, it wouldn't be in the interests of musical logic to accompany a light and playful line with a somber and soulful background. The following points are pertinent:

1. Get a clear idea of the overall mood of the main melody and its supporting harmonies. Obtain an idea of the overall meaning of the lyrics, and the development of the story line in the lyrics, particularly if it is to be a vocal background. Listen to good vocal background writing and notice how a skilled arranger reflects and supports the meaning of the melody and words. Point up the highlights of the main line and do not attempt to cover it. There *are* examples in recorded music where the arranger has used the main melody as merely one element in a complex tapestry, but these are specialized and exceptional. Under most circumstances, it is far better to underwrite the accompaniment than to overwrite it!

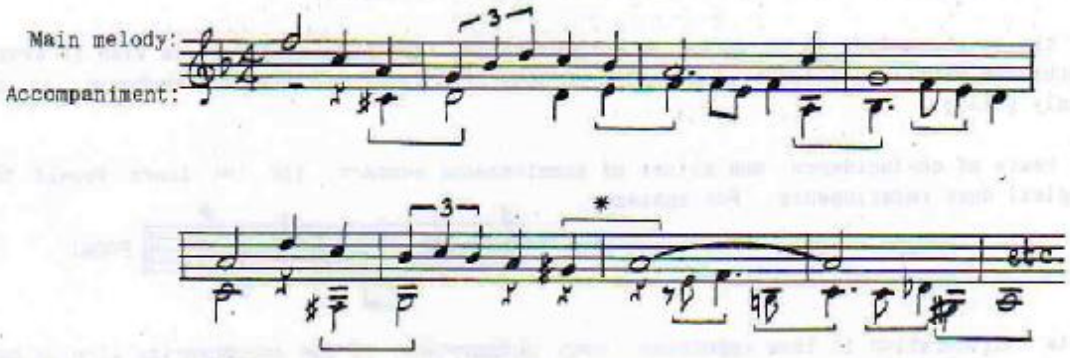
2. The note values in the main line should be the common criterion for the note values in the accompaniment. If the general overall rhythmic texture of a line is quarter notes and half notes, the overall texture of the accompanying line should be in the same vein. No doubt sixteenth notes could be used in an "anacrusis" sense, or for special effect against a melody that doesn't contain any, but a consistent use of sixteenths in such a situation would not be wise.

3. The devices of *imitation* and, to some extent, *inversion*, *retrograde*, etc., can be used effectively in devising background lines. When used tastefully, these devices can contribute much to the cohesion between the two lines and to the overall similarity of character. The imitative phrases may be occasional, as:





A distinctive bit of the main line may serve as the germ of the accompanying line, as:

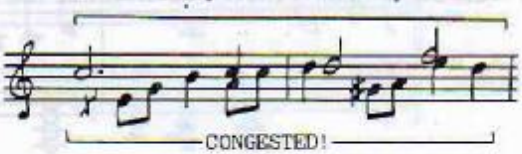


(The half tone movement at the cadence of the main line is used as the basis of the background line.)

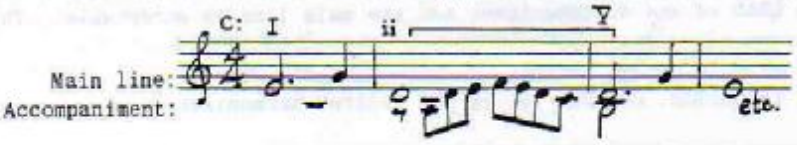
Examples of the application of imitative techniques such as the above could fill a whole book. The general procedure should be apparent however, and further exploration may be left to the imagination of the student. *One caution:* Avoid making the background line merely a series of echoes of the phrases in the main line. Such a practice might ensure unity, but it will also ensure dullness and monotony.

C. THE INTERVAL RELATIONSHIP

1. Avoid "congestion"! The countermelody should not try to take over the territory occupied by the main line, as:

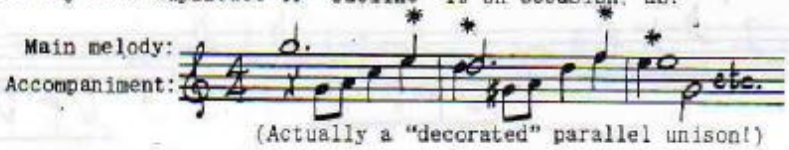


Nevertheless, the countermelody may pass through the main line, as:



and occasionally strike a unison with it, as:

It may also duplicate or "outline" it on occasion, as:



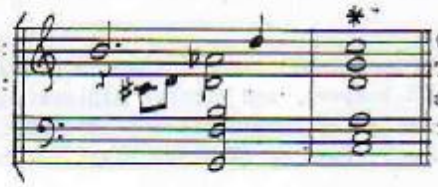
(Actually a "decorated" parallel unison!)

However, the "clarity" of the two lines should be a constant consideration. They should complement each other; do not have them engage in a battle.

2. If the countermelody is in unison or octaves rather than harmonized, it is wise to avoid the forbidden parallels (except if parallel unisons or octaves are used for emphasis, as previously noted).

3. At beats of co-incidence, and points of simultaneous contact, the two lines should form a logical duet relationship. For instance:

This consideration is less important, even unimportant, if the accompanying line is harmonized, as:



GOOD!
The relationship between the melody and the accompanying line is much less obvious than it is in the above example.

4. The interval relationship between the main line and the LEAD of the accompaniment is the concern! When the countermelody is harmonized in a sectional manner, the relationship between the main line and one of the HARMONY parts of the accompaniment is not usually a consideration. To illustrate:

The main line and the accompanying harmony parts in the above example *are* congested, but the relationship between the LEAD of the accompaniment and the main line is acceptable. This is what matters!

5. The countermelody may be in unison, octaves, or in any desired harmonization.

ASSIGNMENT 8

1. Take eight bars or so of ten or twelve standard "ballad" melodies and write an accompanying "countermelody" to each. Think of the lead as either a vocal or instrumental solo, and the countermelody as light unison instruments. Include string bass part and chord symbols.

   In some cases, if not in all, plot the rhythm of the countermelody against the rhythm of the lead line first.

Chapter 11

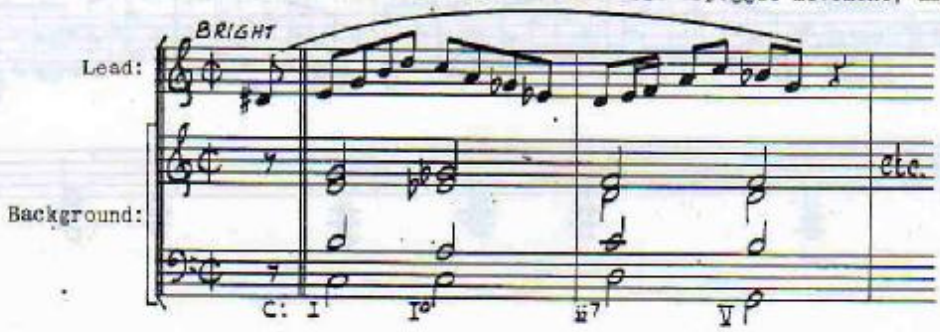
THE HARMONIC BACKGROUND

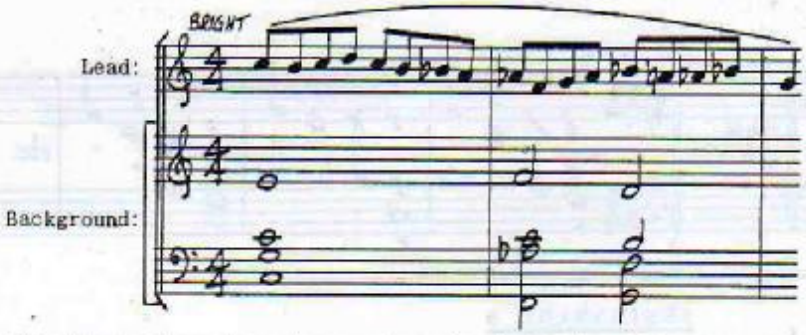
If a background is performing primarily a *harmonic* function, it will consist mainly of sustained chords. The chords will be most effective in open voicing. The chords should be joined to one another with a concern for logical voice leading, especially in the outside parts.

The harmonic background is valuable in the following situations:

1. As backing for an improvised solo where, since the melody which will be played is an unknown factor, no calculation of line against line can be made.

2. Behind a fast moving line, or one that used considerable arpeggio movement, as:



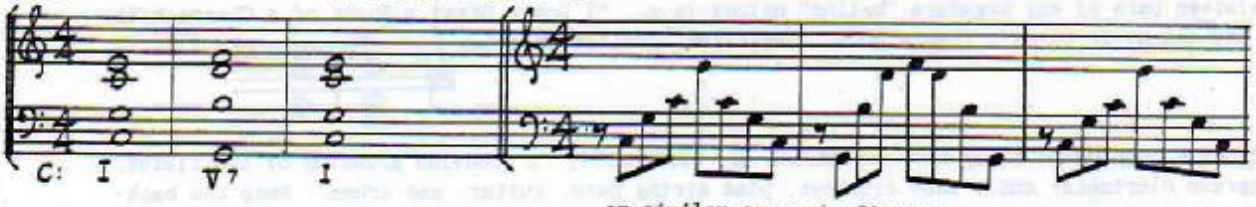


3. Behind a piano solo, where too ornate a background could hamper the pianist.

4. Where, as is occasionally the case, the harmonic progression accompanying a melody is a characteristic factor.

A harmonic background may break into a melodic phrase occasionally. In fact, this may often be necessary in order to avoid a "dead spot". The harmonic background may also take the form of melodic "arpeggios" through the chords, as:

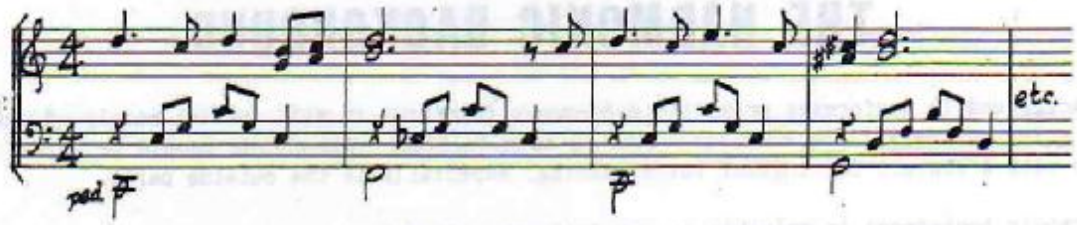
This: can be represented by:



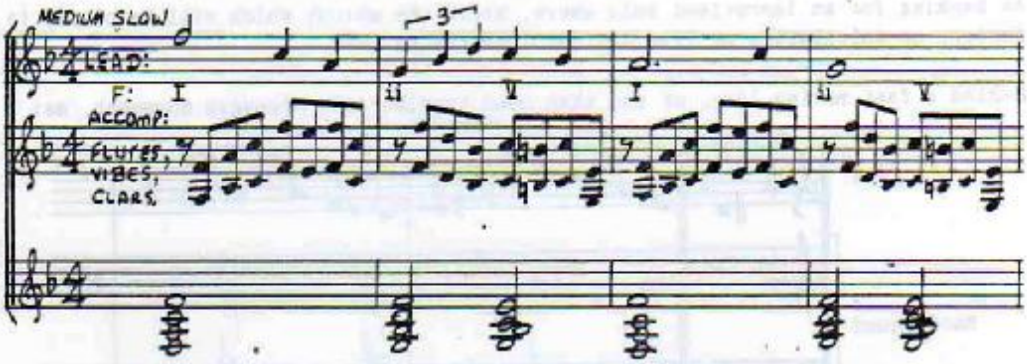
or similar arpeggio figures.

This arpeggio type of background is rather "pianistic" in character and has only a limited value in arranging. However, here are some situations in which the technique may be valuable:

For a piano solo:



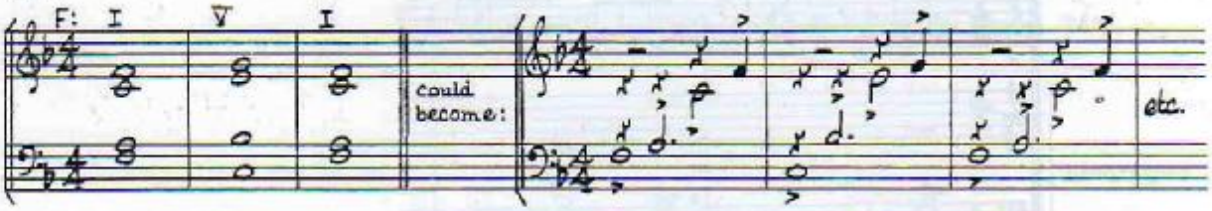
For a light and undulating accompaniment, with light instrumentation:



Accompaniment based on:

For a harmonic "pyramid" effect, as:

This:



ASSIGNMENT 9

1. Harmonize two or three of the countermelodies from Exercise 1. Assignment Eight, for either three four, or five part sections, plus rhythm. Take care to retain the clarity of the main vocal or solo melody which is being accompanied.

2. Take sixteen bars of any standard waltz melody and write it for muted trumpet solo at microphone with an accompaniment from four clarinets (3 soprano, 1 bass). Include string bass, piano, and drums.

3. Take sixteen bars of any standard "ballad" melody (e.g., "I Don't Stand a Ghost of a Chance with You") and assume it to be a female vocal (suggested vocalist range:).

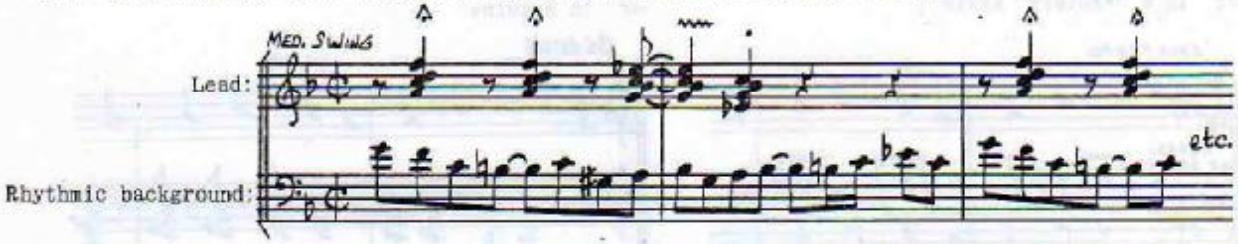
   Provide an accompaniment using five saxophones or, alternately, a woodwind grouping of two flutes, two soprano clarinets, and a bass clarinet, plus string bass, guitar, and drums. Keep the background relatively sparse, mainly *harmonic*, and not too busy.

Chapter 12

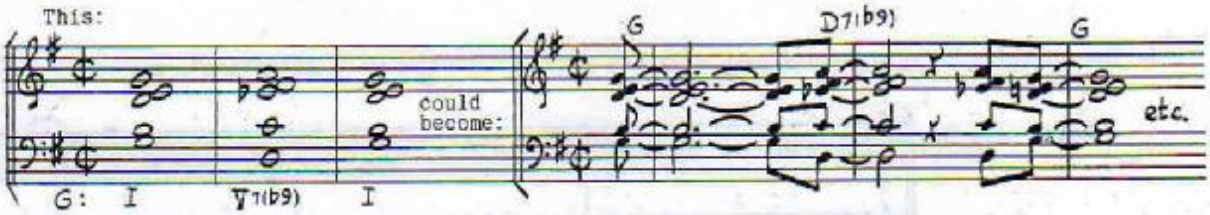
THE RHYTHMIC BACKGROUND

When it is desirable for the background to perform a primarily *rhythmic* function, it will consist principally of either rhythmic "figures" (which may or may not have some degree of melodic value) or of some specialized rhythm, as a "beguine", etc. Some of the situations in which a rhythmic background is valuable are noted below:

1. As accompaniment to a swinging line, to reinforce the rhythmic drive:

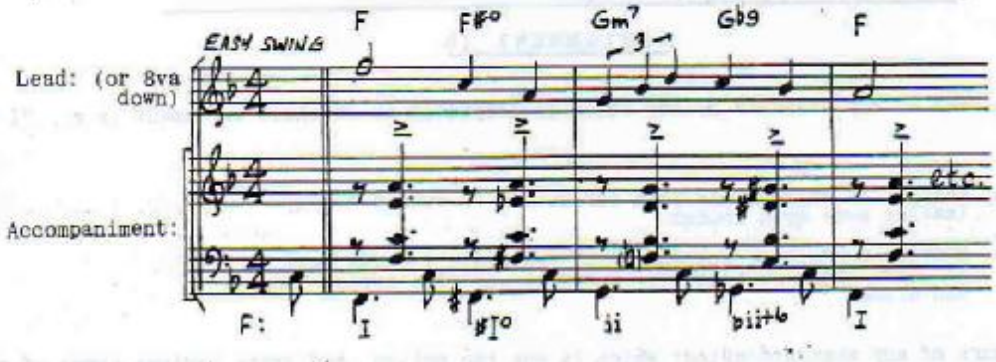


The accompaniment to a jazz line can often be a more rhythmic version of a sustained "harmonic" background. The simple sustained chords are given rhythmic impetus through the applications of rhythmic anticipations, etc. For instance:

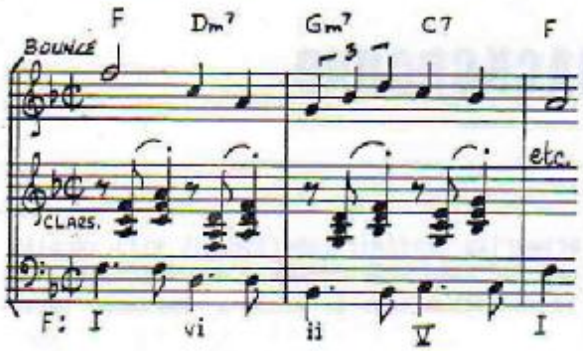


2. As accompaniment to improvised jazz solo, where it again may be a more rhythmic version of a "harmonic" background.

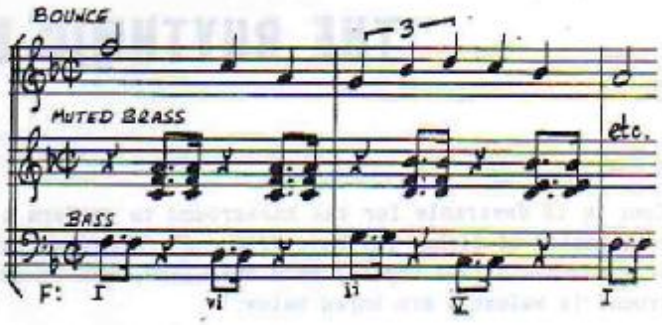
3. For a re-iterated ("ostinato") rhythmic figure or pattern, as:



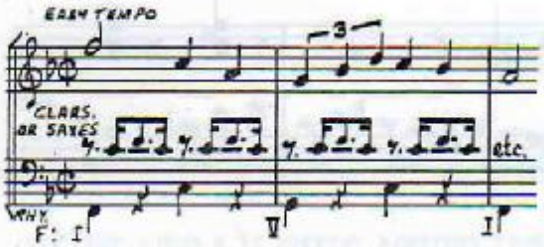
or, in a society band style:



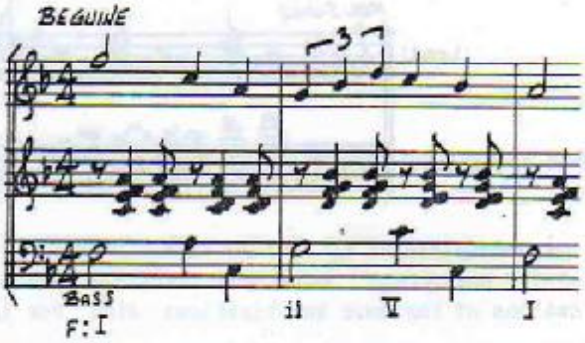
OR:



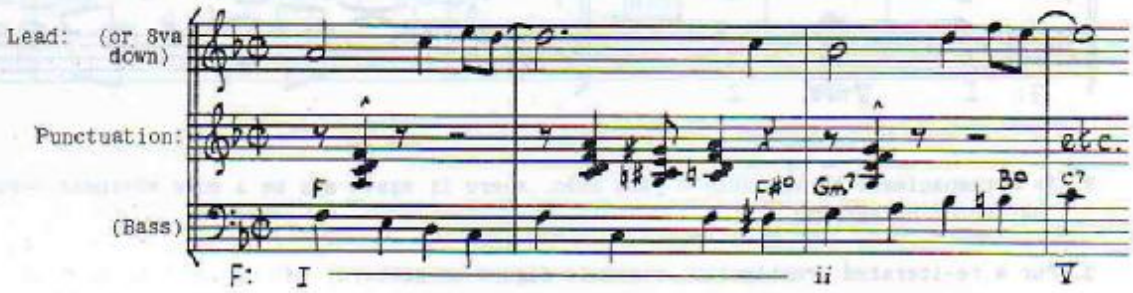
or, in a "Western" style:



or, in Beguine:



4. The rhythmic background may take only the form of occasional "punctuation", as:



ASSIGNMENT 10

1. Take sixteen bars of any standard melody which is adaptable to rhythmic treatment (e.g., "I Never Knew") and:

   a. Rewrite it in *rhythmic* form for unison or octave saxes, leaving some open spaces.

   b. Provide a *rhythmic* accompaniment (rhythmic figures, etc.) for five brass (3 trumpets, 2 trombones) plus string bass and drums.

2. Take eight bars of any standard melody which is not too active, and write various types of rhythmic and harmonic backgrounds to it, using the examples in the text for reference models.

PART FIVE

ORCHESTRATION

INTRODUCTORY

Orchestration requires a proper regard for instrumentation, acoustical voicing, and voice leading. Certain standards are established with respect to these, and the standards can be illustrated and learned. Imaginative orchestration will often show modifications of these standards, so it must not be assumed that the following investigation even begins to cover all possibilities. Nevertheless, even the most imaginative orchestration can be nothing more than a re-interpretation of basic principles, and it is important that the student gain an understanding of these. The only deviations which are likely to be successful are those which are conscious.

"Style" is sometimes an important factor in commercial orchestras, and the arranger may occasionally desire, or be required, to reproduce a particular stylistic approach. Although any text on orchestration must necessarily deal with *styles* in a general sense, no attempt will be made herein to give detailed illustrations from specific commercial orchestras.

The student must *listen*, and listen analytically, to as much and as varied musical fare as possible. The written or spoken word can never be a substitute for actual musical sound, and only through intelligent listening to various instrumental combinations and styles can the novice develop the ability to *hear* the sounds which are represented by the marks on the paper.

The following pages will examine various "textures" which are available in the orchestra. These textures will be broken down into elements of melody, harmony, accompaniments, accompanying melodies, etc., and, further, the way these elements are assigned to the various instruments and sections will be examined. In a full arrangement or composition, there will likely be a number of changes in texture and instrumentation, since the use of only one approach would soon become monotonous. However, for the purposes of this area of the text, the examples and exercises will be short and specific; each will be concerned with the illustration of a particular orchestration principle or device. The problem of cohesion over a longer period will be given attention at a later point.

The examples (up until the section on smaller groups) are scored for 4 or 5 saxophones (with standard "doubles"), 5, 6, 7, or 8 brass, and 3 or 4 rhythm. With the exception of the string bass and guitar, which are written an octave above actual sound, all parts are scored in concert exactly where they sound.

In order to save space, many of the examples use a "rhythm sketch" only. The bass part and the chords for the piano and guitar are indicated and it can be assumed, in these instances, that the drums and the rest of the rhythm section will be doing nothing unusual. When the rhythm section, or any part of it, is required to do something over and above keeping time, it will be indicated in the example.

Chapter 13

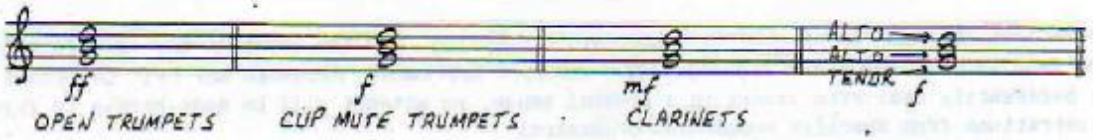
CHORDS

Single chords, removed from any context, are not frequently used. They are to be investigated here for the purpose of establishing some standards of **TONE COLOR**, **SPACING**, **VERTICAL ARRANGEMENT OF INSTRUMENTS**, and **BALANCE**. (Also, certain points in a score *will* have vertical significance; for instance, **final cadence chords, sustained background chords, chords of extended duration, and chords at points of emphasis.**)

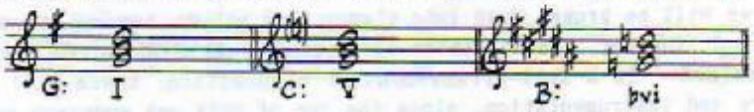
TONE COLOR

Tone Color is mainly a result of the instruments involved. Obviously a chord scored for brass will differ in quality from the same chord scored for saxophones, and if the chord is made up of mixed colors it will differ again. Further, the spacing of the notes in a chord has an effect on its tone color.

Memory is important here! Cultivate the ability to *remember* the sound of each instrument and each section (loud, soft, high, and low). This is not to underestimate the text book rules of instrumentation and voicing but, rather, to point up the necessity for continued listening, analyzing, and remembering. The student who can mentally *"hear"* the sound of, and the difference between, the following simple groupings may be well on his way:



Add the fact that there will be subtle differences in tone color as a result of the position the chord occupies in the scale, as:



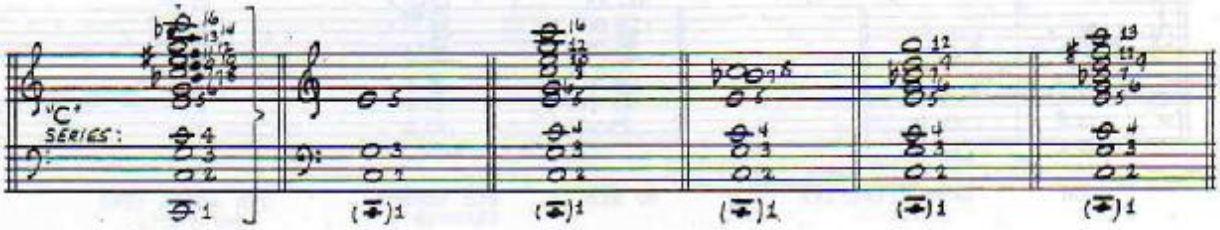
and some indication emerges of the difficulty of:

a. writing about orchestration, and
b. learning it.

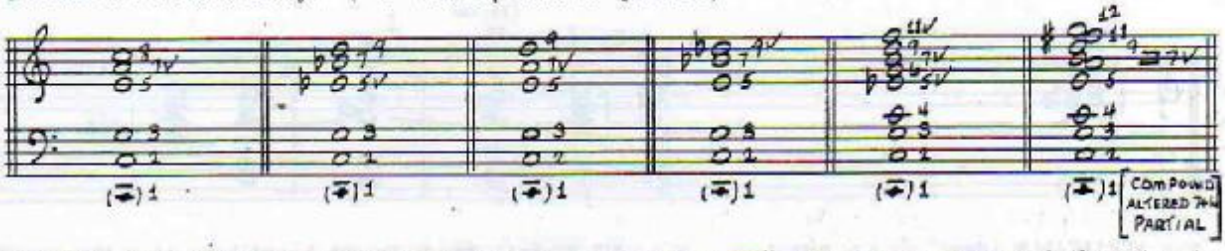
Until the student develops the ability to *"hear"* mentally these, and other simple groupings, his orchestration cannot be entirely successful. He must strive to reach the position where he knows how his score will sound *before* hearing it performed. Even to come within hailing distance of this goal takes unceasing effort and wide experience. The goal is really unattainable because the human factors of careless performance, insufficient rehearsal, insensitive direction, varying tone quality, etc., are often incalculable and always unpredictable. Nevertheless, a good player tries to fit his part into the overall sound, and the better the scoring the more successful will be his efforts.

SPACING

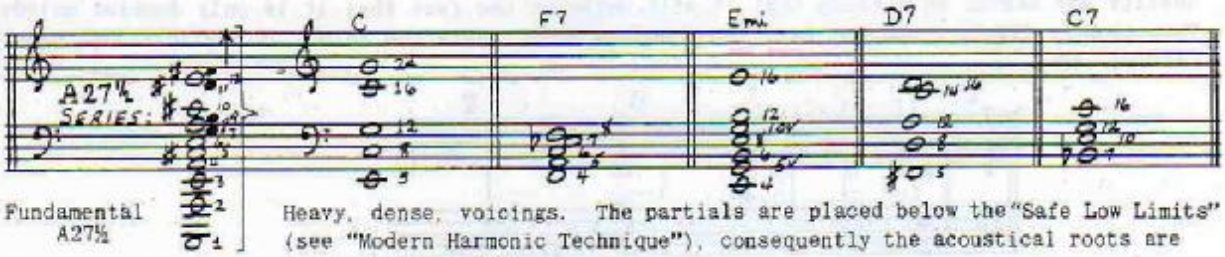
A. The standards for the principles of spacing are derived from the harmonic overtone series. A chord which is spaced so that its notes duplicate the partials of the series will have the greatest clarity. In motion, the voice leading is often more important than the vertical structures and, furthermore, the greatest clarity may not always be desired. It is, however, the only point of departure for investigation purposes. Illustrations of *"clear"* voicings follow:



Voicings of increased tension and density, through use of "altered" partials, but still voiced to produce the most clarity: ("✓" means "altered" partial)



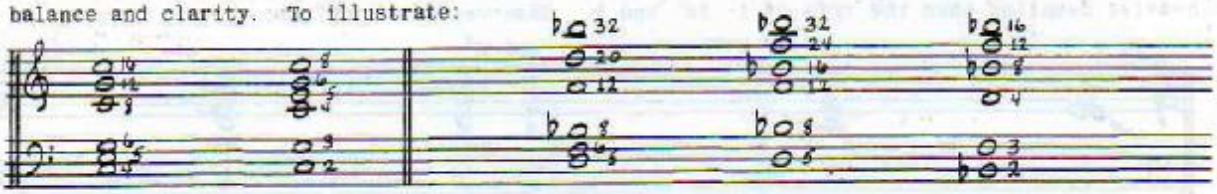
B. Voicings which place the fundamental (1st partial) below A27½ vibrations per second (lowest note on a standard piano keyboard) will tend to be blurred and dense. This is particularly so if the intervals which are written too low are in the "strong" category. (i.e. perfect 5ths, 4ths, major 6ths, 3rds). To illustrate:



Heavy, dense, voicings. The partials are placed below the "Safe Low Limits" (see "Modern Harmonic Technique"), consequently the acoustical roots are lower than the A27½.

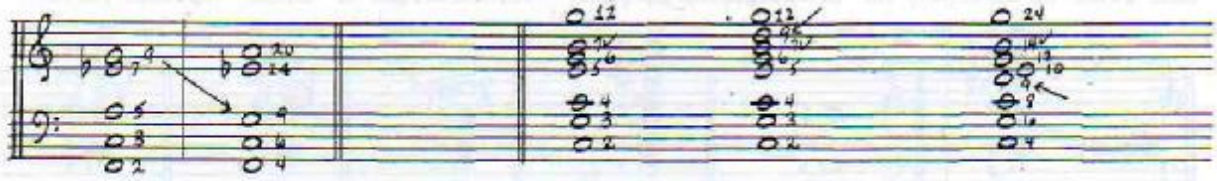
Duration is an important factor in assessing the danger of these "low" groupings. If the "low" voicing is brief and transitional it will likely cause no real trouble. And, of course, the heavy and dense sound which results from an acoustically low voicing may sometimes be musically desirable.

C. Voicings which are open at the top and close at the bottom contradict the overtone series. They tend to produce higher partial numbers, with more missing partials, and can result in a loss of balance and clarity. To illustrate:



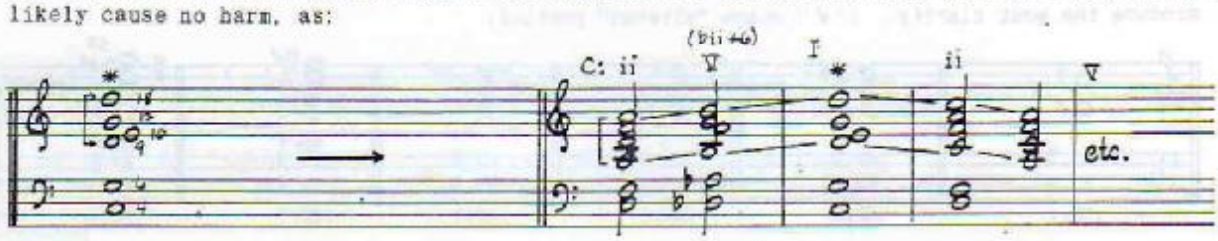
Questionable Improved Poor Somewhat Improved Better

D. The normal order of the overtone series, with respect to the placement of the upper partials, is an important consideration. A chord may be thrown off balance if an "upper function", used HARMONICALLY, is placed too low. The low placement of the upper function will have the effect of moving the acoustical root to a lower octave, and increasing the number of missing partials between the notes above it. As a consequence the lower level of the chord will be thick and heavy, while the upper level will be thin. To illustrate:



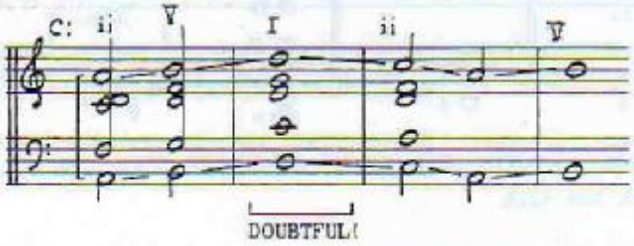
Good | Less Effective | No 9th | 9th added favorably | 9th added less favorably

Upper functions which result from an obvious DOUBLING OF THE MELODY in the lower octave will likely cause no harm, as:

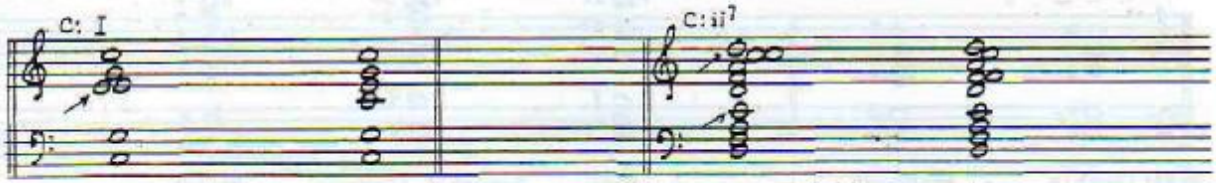


Not VERTICALLY ideal, out of context. BUT: All Right! The D is not heard here as a "harmonic" 9th partial, but only as "horizontal" melody.

Although if upper partials which are a result of melodic doubling are very low, the poor vertical quality may become so obvious that it will outweigh the fact that it is only doubled melody. This is more likely to happen in slow moving passages, where the melody is duplicated in double octaves, as:

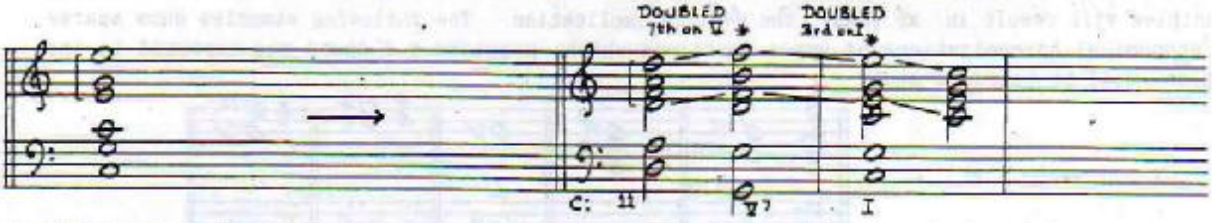


E. The principles relating to satisfactory doubled notes in chords are also derived from the overtone series. A glance at it will show that there are more roots than 5ths, more 5ths than 3rds, more 3rds than 7ths, more 7ths than 9ths, etc. In general then, the higher the partial number, the less amenable it is to doubling. A modification familiar to the student of harmony is the doubling of the "tonal" notes. These are the tonic, subdominant, and dominant, which are structurally more important to the tonality. Consequently, the 3rds of ii, iii, and vi can take a heavier doubling than the 3rds of I, IV, and V. Observe illustrations:



Unnecessary Weight on 3rd | Better | Unnecessary Weight on 7th | Better

An irregular double which results from DOUBLED MELODY will cause no concern, as:



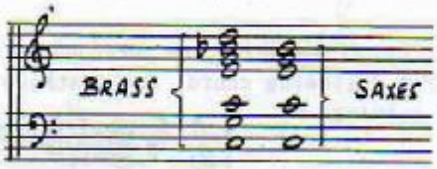
3rd Rather Prominent Vertically BUT: All Right! Heard "Horizontally"

The presence of the major 7th in a chord allows a more free doubling of the 3rd, as:

Tension and energy of the major 7th distracts from the sound of the doubled 3rd.

3rd Prominent

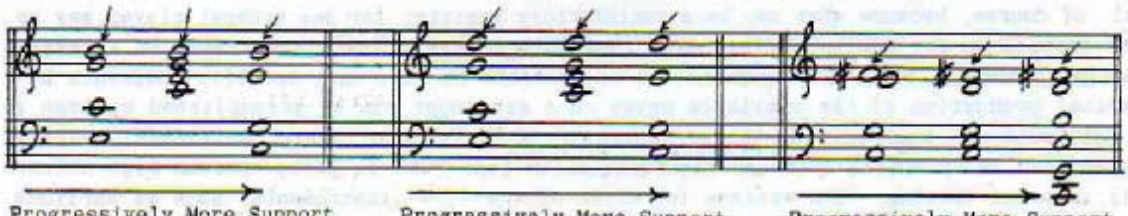
It should be noted that two instruments on a note are not necessarily twice as loud as one, even if they are of similar individual weight. It takes, in fact, upwards of 5 similar instruments at the same dynamic level to be twice as loud as one (example, 5 trumpets at "mf" are approximately twice as loud as 1 trumpet at "mf"). Consequently the normal doublings that occur with a combination of sections in motion will not cause any particular concern, as:



The doublings here are of no consequence.

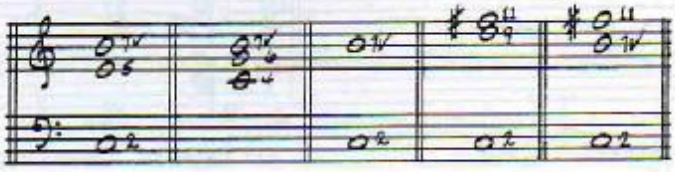
F. **Inversions:** The 2nd inversion ("$^6_4$ chord") is generally restricted to the same uses that it receives in traditional harmony, i.e. **Appoggiatura, Pedal, Passing, Auxiliary, Idiomatic** V^6_4 **and the Arpeggiated** $^6_4$**'s.** (See "Modern Harmonic Technique".) Other than these, chords in full orchestration tend to be in root position most often. 1st and 3rd inversions are usually transitional in usage, and less frequently used than they can be in part writing. This again is a matter of the overtone series, the 5th partial at the bottom (1st inversion) or the 7th partial at the bottom (3rd inversion) cannot be written too low in the orchestral range and, also, may not provide enough support for a large structure above.

G. The support of melodic upper functions is accomplished most effectively with attention to acoustical principles and the use of low partial numbers in the supporting harmony. When adequate support is given, the upper partial will "blend" more evenly into the chord, as:

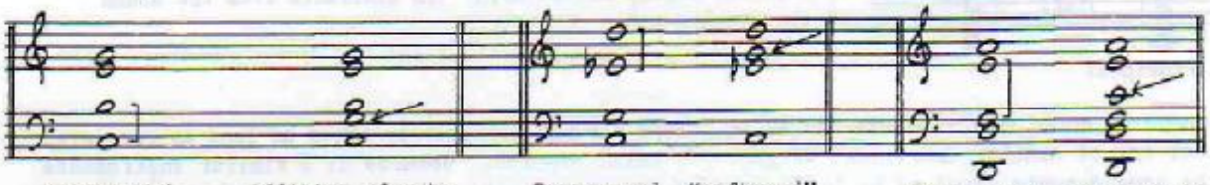


Progressively More Support for the major 7th — Progressively More Support for the 9th — Progressively More Support for the 11th

Even if a chord is restricted to three notes (or even two notes) proper concern for acoustical principles will result in, at least, the desired implication. The following examples show sparse and economical harmonizations of upper functions which, provided a C chord was expected in the context, will be heard as such:



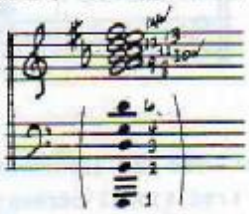
H. If a voicing contains a major 7th interval with no note inside it, it will generate more tension than it will if there is a note between the notes of the major 7th. To illustrate:



Pronounced tension — Addition of note between "softens" the tension. — Pronounced tension — "softened" — Pronounced tension — "softened"

I. Chords which are intended to be percussive or dramatic, or chords which are intended to provide emphasis, may be desirable in less clear voicings. The following chord, for instance, could hardly be regarded as an example of clear acoustical voicing:

but it has been calculated from the overtone series of "G", with altered partials:



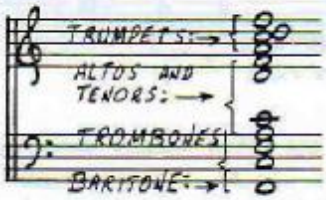
and, if the context allowed, could be quite acceptable *for emphasis*. The overtone series, when used with understanding and skill, provides all degrees of tension and fusion.

VERTICAL ARRANGEMENT OF INSTRUMENTS

Here again we find only standards of procedure rather than immutable laws. Exceptions to the standards are often desirable and often unavoidable; final judgment is in the province of the ear with respect to the context.

The best single piece of advice: **USE THE INSTRUMENTS IN THEIR BEST REGISTERS.** Even this advice is only general, of course, because what may be a satisfactory register for one trumpet player may be difficult or impossible for another. This also applies to other brass players and, to a lesser extent, clarinet players. With the saxophones it is possible to make more specific judgments because the actual production of the available notes on a saxophone can be accomplished by even a beginner. But, with all instruments, the orchestrator is advised to remain, in general, within the range specified as "*practical*" in the instrumentation text, and to avoid extreme high notes, particularly in brass writing. The extreme low notes of the "low" instruments, such as baritone saxophone, trombone, and to some extent, tenor saxophones, are more readily available. The extreme low notes of the clarinets are no problem, as long as power isn't desired. Also, THE LARGER THE BAND, THE HIGHER THE CHORDS WILL EXTEND.

The standard vertical arrangement of instruments depends, then, on their comfortable ranges, as well as their ability to project. In conforming orchestration we can expect to find the baritone saxophone and the trombones at the bottom of the ensemble, the trumpets or clarinets at the top with the alto and tenor saxophones in the middle. In other words, the "Soprano - Alto - Tenor - Bass" arrangement familiar to the student of harmony remains as the guide to the disposition of the instruments. Here is a chord voiced for the standard stage band instrumentation which places the instruments according to their natures:



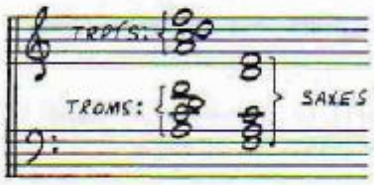
Top level: Trumpets

Middle level: Alto and Tenor saxophones

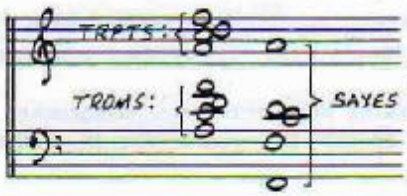
Bottom level: Trombones and Baritone saxophone

This seems an eminently satisfactory disposition of the instruments for a single chord.

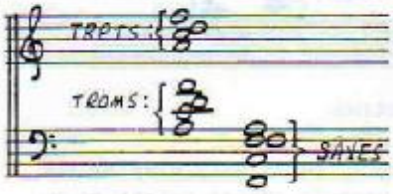
In practice, modifications of this arrangement occur. The trombones are often placed in their top registers, immediately under the trumpets, to form a unified brass "section" (as if there were 8 trumpets, rather than 4 trumpets and 4 trombones). The saxophones may then "overlap" into the brass, "dovetail" into them, or, in some cases, be situated below the brass:



Saxes "overlap" Compact



Saxes "dovetailed", somewhat more unified color.



Saxes below brass. The separation between the brass and saxophone tone quality is somewhat more evident.

In each of the three examples above, the brass sound will dominate. Particularly so if the brass are open.

A careful perusal and consideration of the examples in the following section will be of more value than further direction.

BALANCE

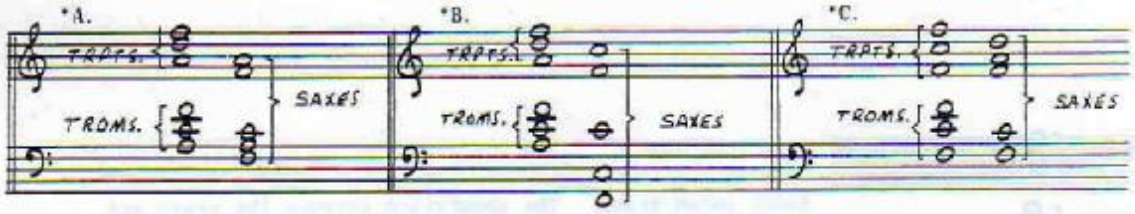
A "balanced" chord is one that forms a flat vertical plane of sound, with no individual sound more prominent. It is doubtful if such a chord is possible instrumentally, but balance and blend are aims for which one should strive to attain. Certainly good chordal balance cannot be achieved simply by placing the same number of instruments on each note, as the following chords, with comments, indicate:

*1. In 1a, the overpowering trumpet sound, and the placing of the altos, tenor, and trombone in good resonant registers will completely submerge the clarinets. In 1b, a rearrangement of the same chord with the same instruments is given. It will be an improvement in balance, since the trumpet is in a less strident range and the clarinets are in a better position to be heard. Note that the trumpet is still on the "melody" note.

*2. In 2a, the light woodwinds at the top will be overpowered by the brass which, although not in a strident range, will have a sonorous and rich sound. Nevertheless, the overall quality will be pleasing, the lighter reeds will be heard as octave overtones of the brass. Example 2b achieves a more balanced consistency of sound with the same chord and instruments by the simple expedient of muting the brass.

*3. Examples 3a and 3b use only "soprano" instruments. Both will sound all right, but 3b, which uses a dovetailed "mixing" of the colors, will produce a more even quality.

In a full ensemble voicing, using open brass and saxophones, *the brass will be the dominant sound.* Consequently THE BRASS CHORD SHOULD BE SATISFACTORY IN ITSELF. To illustrate:



*A. Best! A complete chord appears in both the brass and saxophone section.

*B. Possible. The brass section is complete in itself. The saxophones, while only playing the root and 5th, will be enveloped into the overall sonority. They haven't enough weight to be heard as a "section" when combined with a large brass section.

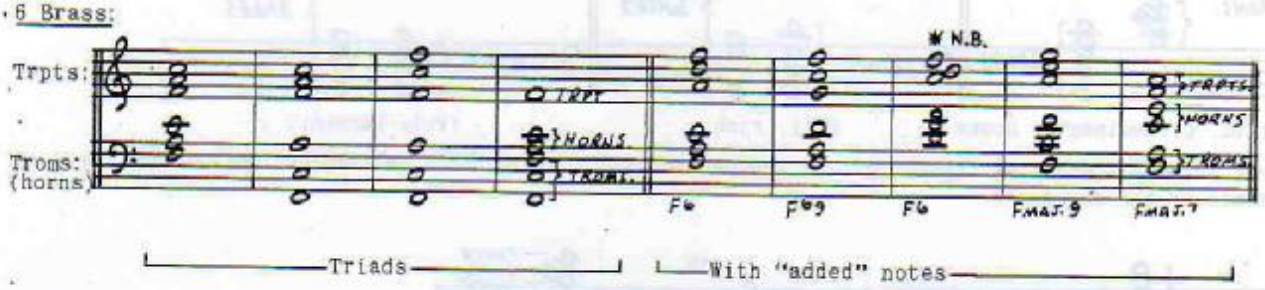
*C. Poor. On paper, all of the notes are there but the incomplete brass "chord" (root and 5th only) will dominate, and the overall sound will be hollow and out of balance.

The following examples, with comments, should be thoroughly examined and every effort must be made, mentally, to hear the actual sound. The piano is of no value here, other than to assess spacing and other voicing factors. *The important thing is the sound of the instruments themselves.* The various degrees of tension should be noted, and it will be obvious that ALL OF THESE CHORDS WILL NOT FIT INTO THE SAME CONTEXT AND STYLE.

Since single sections of 2, 3, 4, and 5 instruments have been investigated earlier, these examples will deal with groupings of more than 5, and with full orchestra. They represent only a small portion of the possibilities and are aimed only at setting a standard.

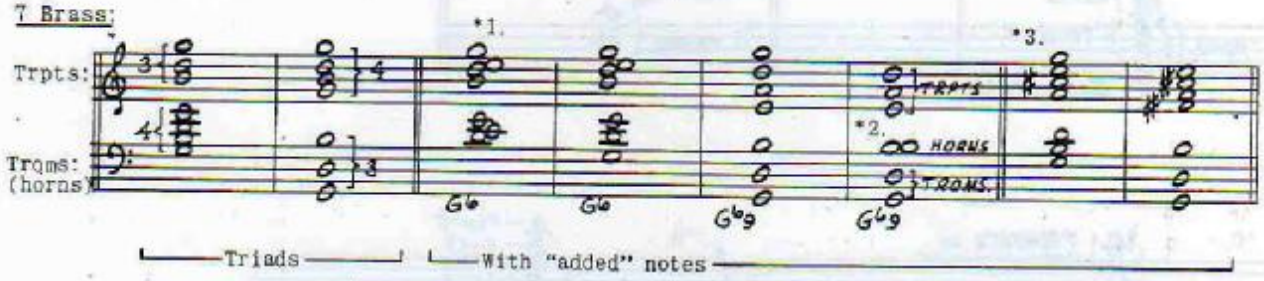
BRASS CHORDS:

6 Brass:



*Note: Not "self-sufficient", would require further support underneath.

7 Brass:

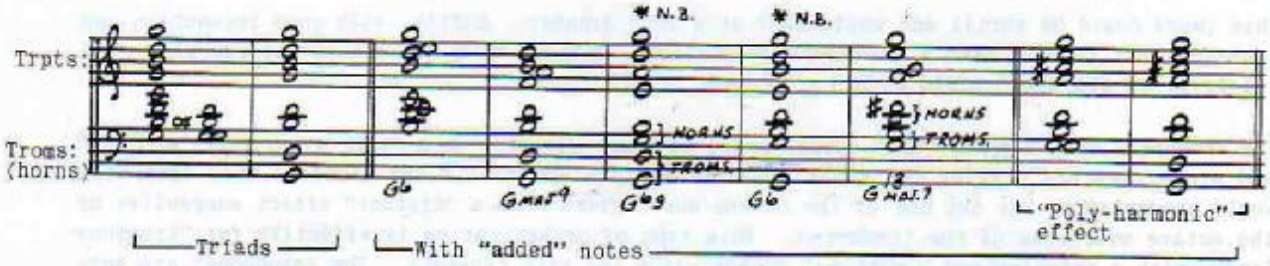


*1. Note: Not "self-sufficient"

*2. Note: The French Horn is not as powerful as the trumpet or trombone. At a loud dynamic the use of two horns on one note of the brass chord is common practice.

*3. Note: Although these are simply 7 part extensions of a G chord (i.e. G: I or D: IV) the trumpets will "split" from the trombones and a distinct "poly-harmonic" flavor will result. The "air-space" between the two sections will aid the effect of "two chords".

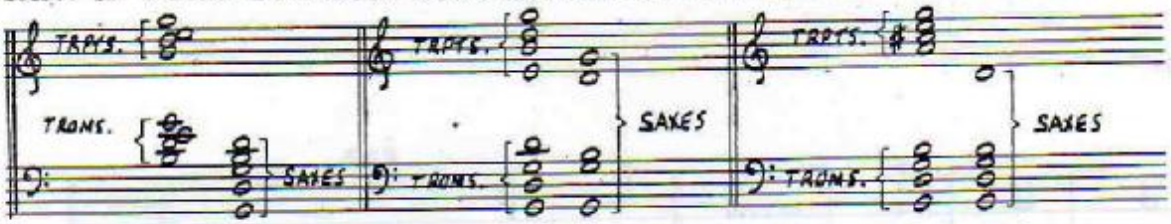
8 Brass:



*Note: When the 1st trumpet gets above the staff, more open voicings "ring" better. When writing for high trumpets its a good idea to keep approximately a 4th between the 1st and 2nd.

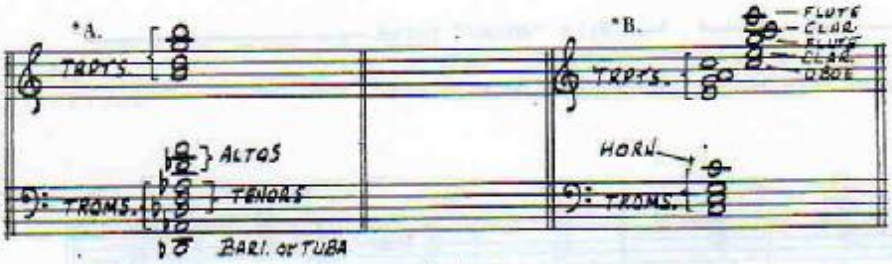
FULL ORCHESTRA CHORDS:

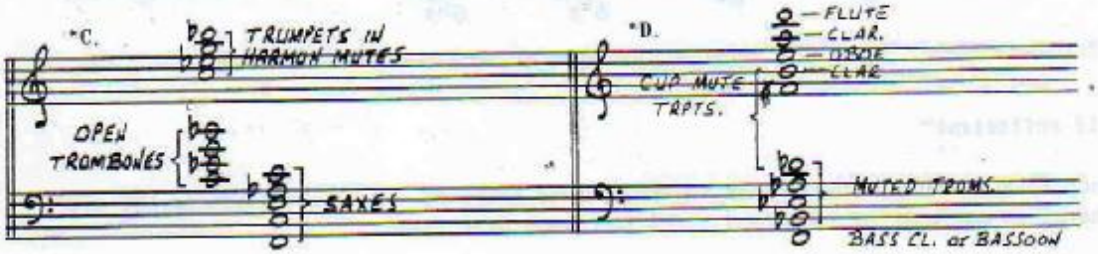
Scored for 8 brass and 5 reeds. (With less brass or reeds, some modifications would be necessary.)



Powerful, predominantly brass Full, rich *Poly-harmonic

*Effect through acoustical "split" of the trumpet section. Again, note "air-space" between the two segments of the chord.





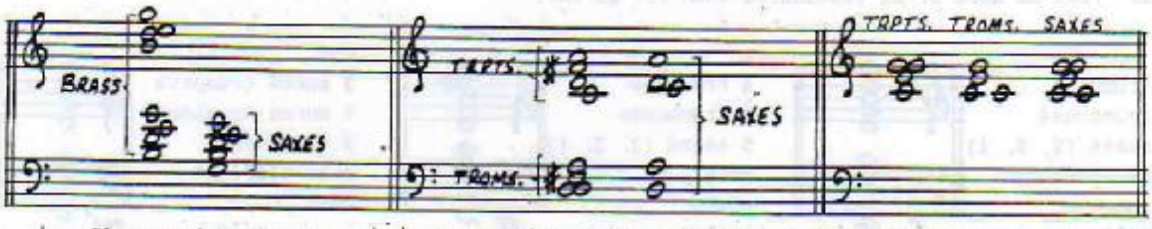
*A. Chord formed from the simultaneous sounding of two triads related by equal division of the octave (G and D♭). The whole will be heard as two layers of sound, an effect which is aided by the space between the 1st alto and 4th trumpet.

*B. This chord could be shrill and unpleasant at a loud dynamic. Softly, with good intonation and tone quality, it will have a "shimmering" quality. Instead of a mixed woodwind grouping, the top level of the chord could be all clarinets or all flutes.

*C. The trombones will dominate this chord, since they are situated in a range which will "project" and since they are playing the upper level of an 11th chord. If the trumpets were open they would predominate, but the use of the harmon mutes gives them a "distant" effect suggestive of the octave overtones of the trombones. This type of orchestration is effective for "trombone lead", with a superimposed "overtone" support from the high trumpets. The saxophones are here providing a solid triadic foundation.

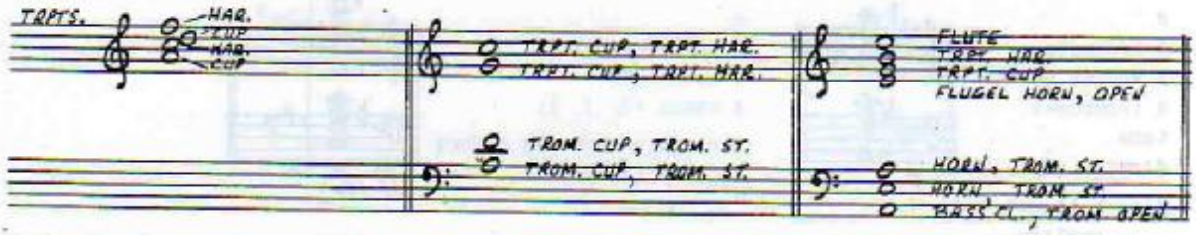
*D. Chord in 4ths, with a soft and "transparent" quality resulting from the soft quality of the muted brass and light woodwinds.

MORE COMPACT VOICINGS:



Clear and Decisive — Surprisingly rich voicing of pure dominant 7th chord — Not "big" in the usual sense of the word, but with a sonorous quality dominated by the troms.

Also: Examine the possibilities provided by combinations of mute types in the brass as, for instance:



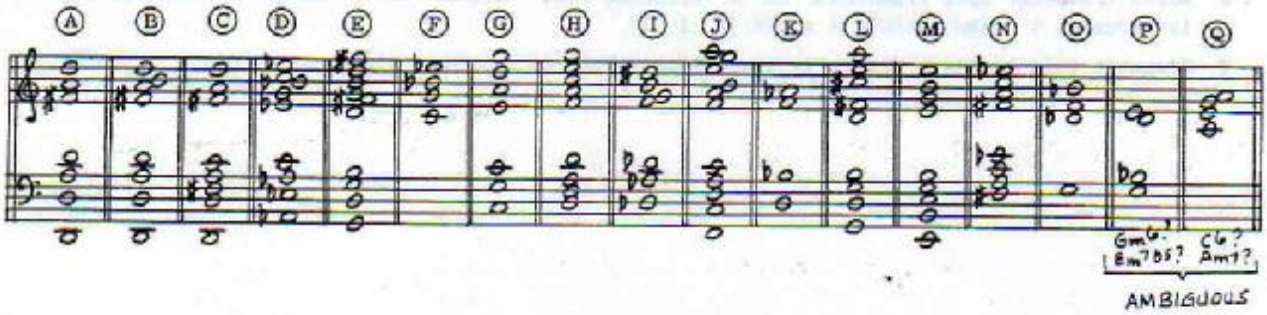
All of the chords in the above section have been considered without any specific time value in mind. But it is assumed that they are held long enough for the balance, spacing, and tone color to register on the ear. In a short, percussive, chord the calculation of blend and balance is less important and *may be subordinated to the placing of the instruments in a range where they can produce a good accent.*

Further, the effectiveness of any chordal grouping is dependent to a large degree on the human factors earlier mentioned. The most cafefully calculated structure can be thrown out of balance by one insensitive performer.

ASSIGNMENT 11

1. Give the partial number for each note of the following chords. Use "/" to indicated "altered" partial, as:

(For further material on the overtone series see "Modern Harmonic Technique".)



2. Orchestrate each of the following chords for the indicated instrumentation and with the indicated aim. (Use no more or no less notes than are given.)

a.
4 trumpets
4 trombones
5 saxes (2, 2, 1)
bass
piano
guitar
drums

Aim: rich, balanced

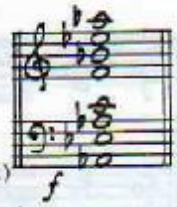
b.
4 trumpets
4 trombones
5 saxes (2, 2, 1)
bass
piano
guitar
drums

Aim: brilliance, predominantly brass

c.
3 muted trumpets
3 muted trombones
3 clarinets
bass clarinet
bass

Aim: light and even balance

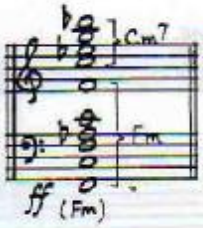
d.
3 trumpets
2 French horns
2 trombones
tuba
4 saxes (2, 1, 1)



Aim: balanced, even quality

e.
4 trumpets
3 trombones
4 saxes (2, 1, 1)

Aim: poly-harmonic effect in two planes



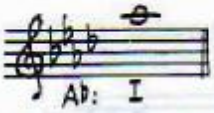
f.
2 flutes
2 clarinets
bass clarinet
French horn
3 muted trumpets

Aim: lightness, primarily woodwind quality

g.
4 trumpets
4 trombones
5 saxes (2, 2, 1)

Aim: poly-harmonic effect in three planes

3. Lead note and chord given. Harmonize (root position) and orchestrate for 4 trumpets, 4 trombones, 5 saxes (2, 2, 1) and bass. Six examples as follows:



a. Rich, even, TRIADIC only.

b. Rich, even, 4 part level. (i.e., with added 6th)

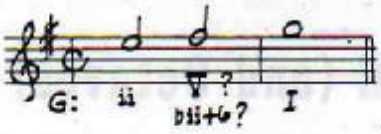
c. Brilliant, predominantly brass, 4 part level.

d. Even, balanced 5 part level. (i.e., include 6th and 9th)

e. Muted trumpets, open trombones, for a "trombone lead" effect. (1st trombone on lead 8va below 1st trumpet.) Also include 4 saxes (2, 1, 1).

f. Dramatic poly-harmonic effect in two planes (trumpets on upper plane).

4. Lead notes and chord given for short cadential passage. Harmonize (likely root positions) and orchestrate as follows:



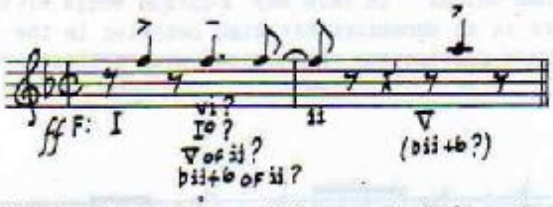
a. For 4 trumpets, 3 trombones, tuba, alto, tenor, and baritone saxophones, string bass. Strive for a rich, broad, balanced sound. Use the ii and I chord triadically only, but use V^7.

b. For 4 trumpets, 4 trombones, 5 saxes (2, 2, 1) at a general (4-5) part level of harmony. Even, balanced.

c. For 4 muted trumpets, 4 open trombones, and baritone saxophone. "Trombone lead" effect (1st trombone on lead 8va below 1st trumpet) with baritone on low roots.

d. For 4 trumpets, 3 trombones OR 3 French horns, and 4 saxes (2, 1, 1) with a dramatic polyharmonic effect. Trumpets on the upper plane.

5. Assume following to be a brass figure behind a saxophone passage. Harmonize and orchestrate as follows:



a. For 3 trumpets and 3 trombones in a solid compact style. General 4 part level of harmony.

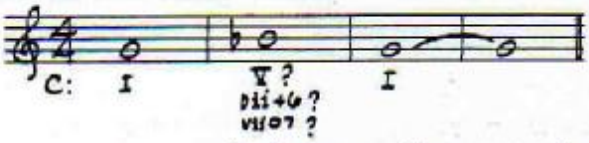
b. For 3 trumpets and 3 trombones, plus baritone saxophone in a solid but more open voicing. General (4-5) part level of harmony.

c. For 4 trumpets and 4 trombones in a solid compact style. General 4 part level of harmony.

d. For 4 trumpets, 3 tenor trombones and 1 bass trombone in a more "extended" style. Use more complex and extended forms of the chords, particularly in the trumpets.

6. Harmonize and orchestrate the following lead for:
2 flutes
2 clarinets
bass clarinet
3 trumpets deep in hat or in bucket
3 French horns

Aim for a light and "transparent" quality with good clarity. Use the 1st trumpet on the lead as given and a flute an octave higher (there may be harmony between the octave doubling of the lead).



(B♭ is appoggiatura over A♭, resolving with elision.)

SEE SAMPLE SOLUTIONS

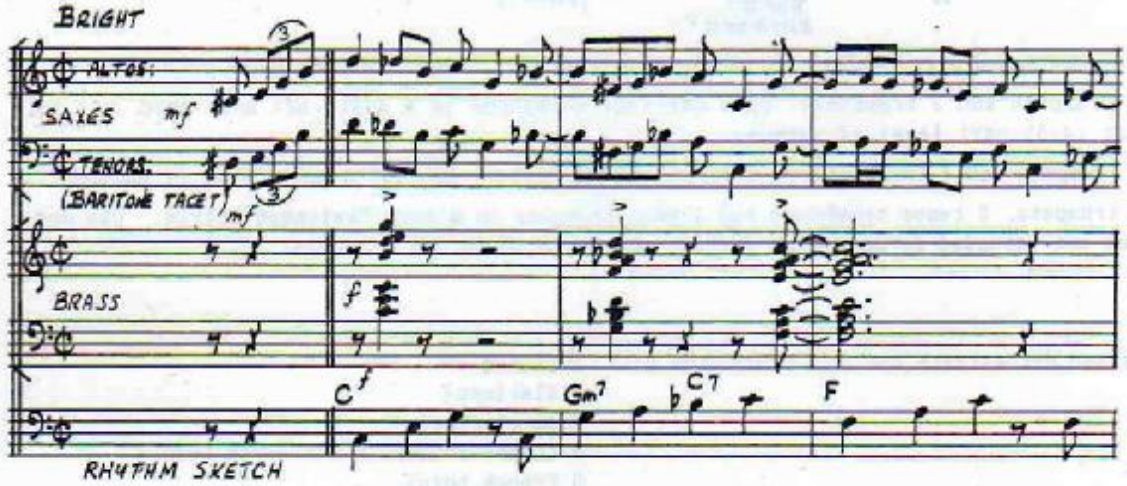
Chapter 14

THE UNISON (and Octaves)

The use of unison, or octave coupling, for the presentation of a line is one of the most valuable orchestration resources. The unison may be written for two instruments (although, when a choice exists, three instruments usually make a better combination because the intonation problem is less), or it may be written for any one section, a group of mixed colors, or for the full orchestra. Here are some suggestions and illustrations:

A. Fast moving and rhythmic lines are particularly suited to unison or octaves. Such lines are often written for unison saxophones, which have the required flexibility, or for small "front lines" such as trumpet and alto, tenor and valve trombone, etc. The following example uses saxophones in octaves, a somewhat *bigger* sound than unison. In this key, a unison would either take the altos below their range or place the tenors in an uncomfortably high position in the first bar. The brass accompaniment consists of rhythmic punctuation, harmonized with a little "edge":

Example 1:



B. A line of a calm and serene nature may be effective in unison, either with one section, as:

Example 2:

Unison trombones or saxes:

or with mixed colors, for more delicate shading, as:

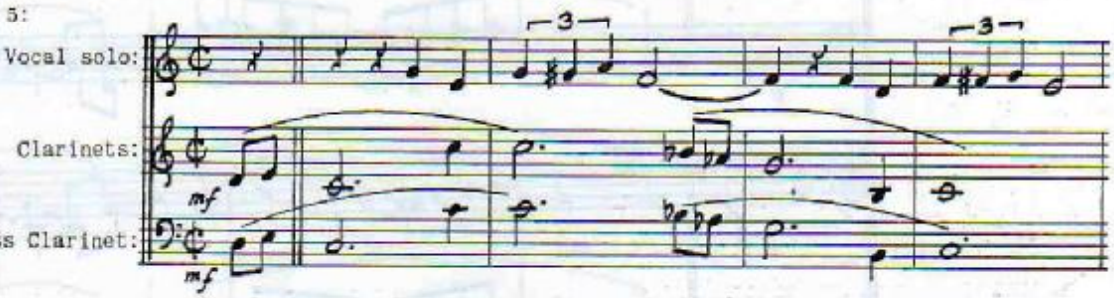
Example 3:

or with more weight and richness, as:

Example 4:

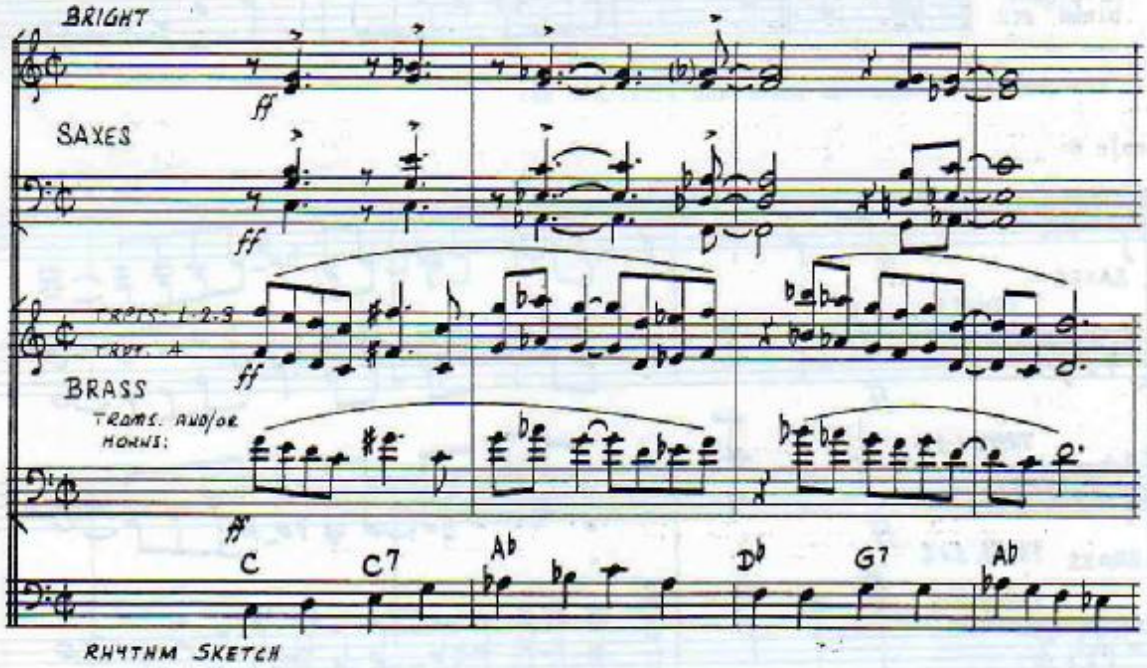
C. Unison or octaves may be applied where "lightness" is required, as in the case of a melody accompanying a vocal:

Example 5:



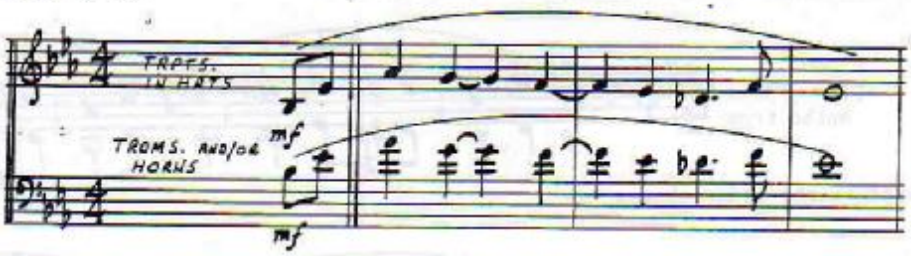
D. Unison brass can be exciting, as:

Example 6:



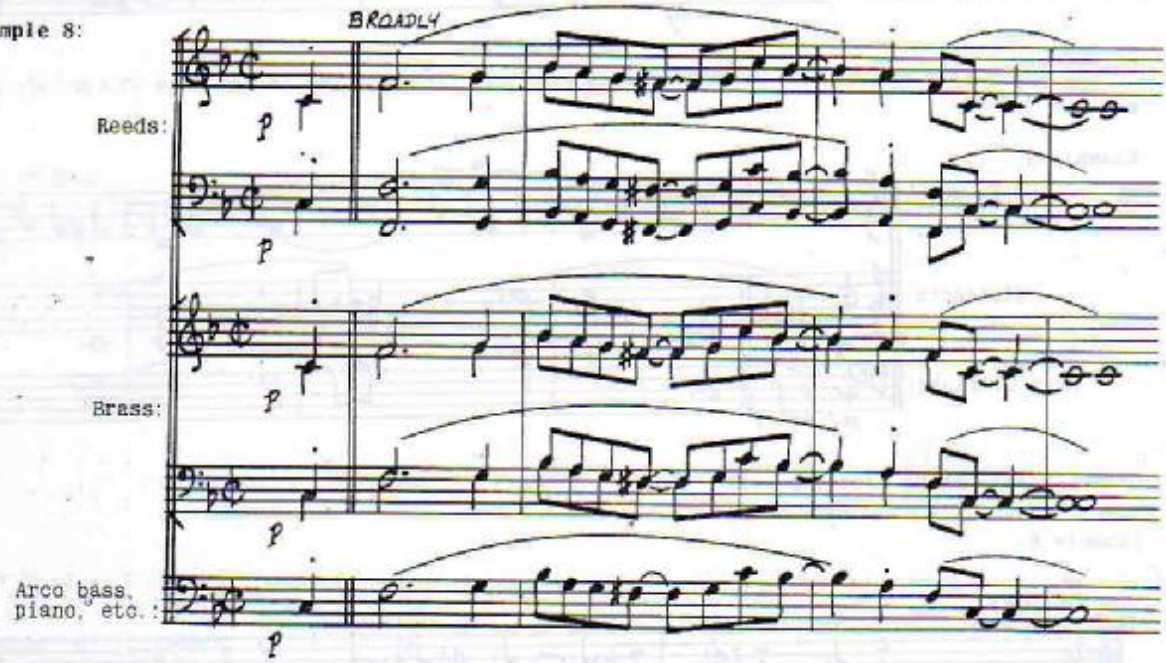
or noble and serene, as:

Example 7:



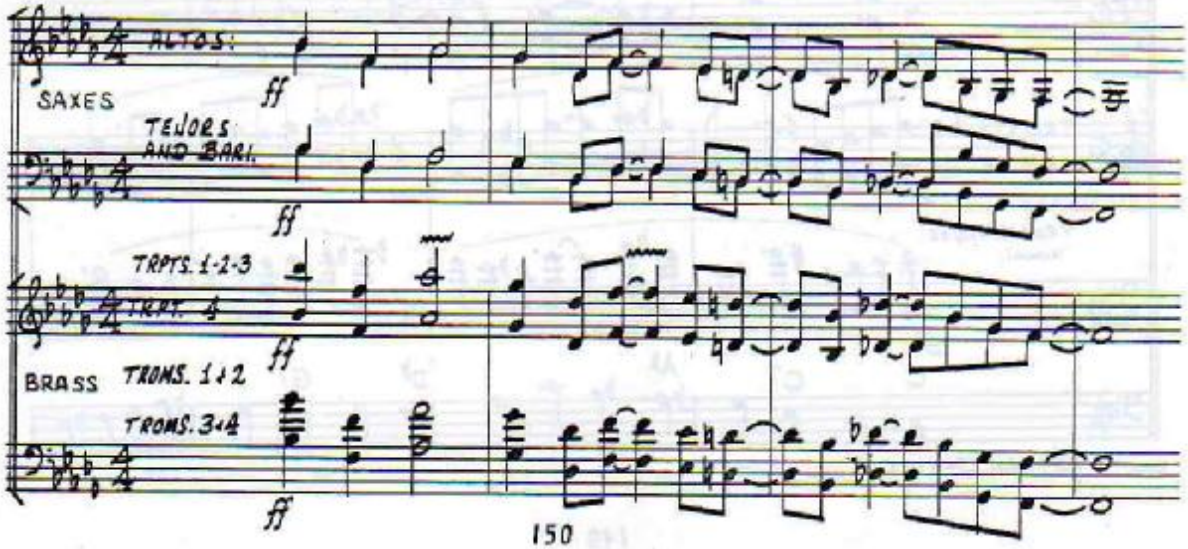
E. The full orchestral unison appears only rarely in arranging. It can be used occasionally with a small band as a means of procuring emphasis, but with a large orchestra it may be overwhelming. Nevertheless, used with discretion and restraint, it can add profundity to the simplest line, as:

Example 8:



or it can generate tremendous power and vitality, as:

Example 9:



Note: 1. "Shakes" in trumpets for increased excitement.

2. Octave adjustments in the fourth trumpet and tenors, because of range limits.

Many further examples of unisons will be found in the following text.

ASSIGNMENT 12

1. Assume an available instrumentation of:

3 trumpets (with standard straight, cup, and harmon mutes)
3 trombones (with standard straight and cup mutes)

Alto I - doubling flute and clarinet
Alto II - doubling flute and clarinet
Tenor I - doubling clarinet
Tenor II - doubling clarinet
Baritone - doubling bass clarinet

Bass
Drums
Piano - doubling vibes
Guitar

Suggest at least twelve different instrumental combinations to render a unison or octave version of a "ballad" melody. Do not use less than three instruments in any one example. Bend every effort to *hear* mentally the sound of each combination.

(The purpose of this exercise is to bring attention to the fact that, while there is nothing wrong with "sectional" unisons (unison trumpets, unison trombones, unison saxes, unison clarinets, etc.) there are a great many subtle, pastel, and brilliant unison sounds available through the use of blended colors.)

2. Score the following line for an orchestra consisting of 4 trumpets, 4 trombones, 5 saxes (2,2,1). (Rhythm tacet) Aim for a smooth and even drop, and *avoid* the "seams" which will occur if you simply stop one section of instruments and start another. Unison only (no octaves).

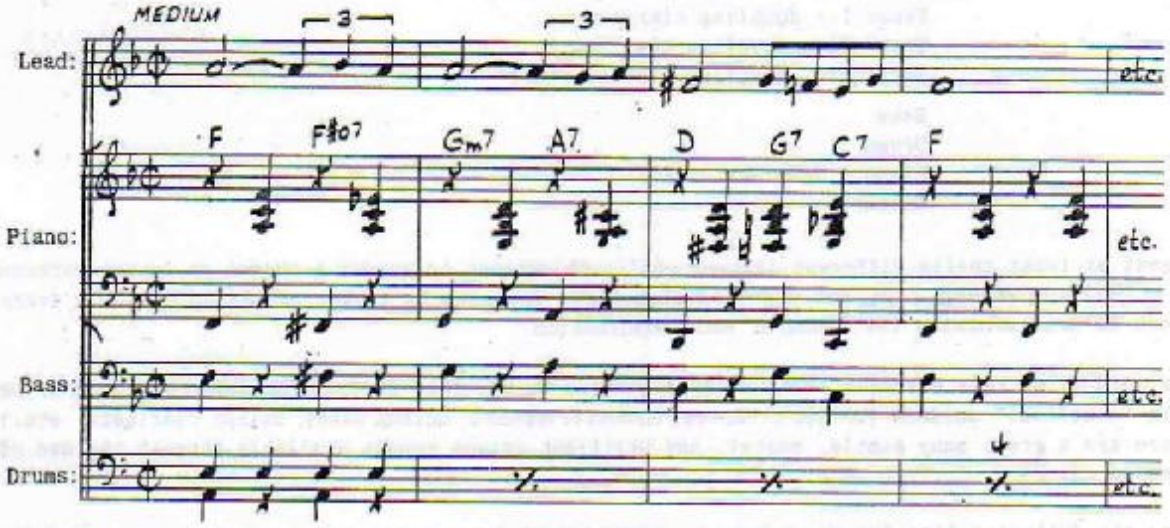
Chapter 15

MELODY

(IN UNISON, SOLO, OR HARMONIZED)
WITH RHYTHM SECTION ACCOMPANIMENT ONLY

Music scored so that it consists of only a *single element* is not at all unusual in commercial writing, at least for brief periods. Since there is, under most circumstances, an accompanying rhythm section, it is perhaps erroneous to regard it as containing *only* a single element. **For the purpose of this investigation the rhythm section, while of vital importance, will be regarded as a constant unifying force rather than a major orchestration element, unless it is used to present a clear primary or secondary idea.** (It should be noted that when a rhythm section contains a pianist, he will often garnish the main elements to his own taste.)

Example 10:



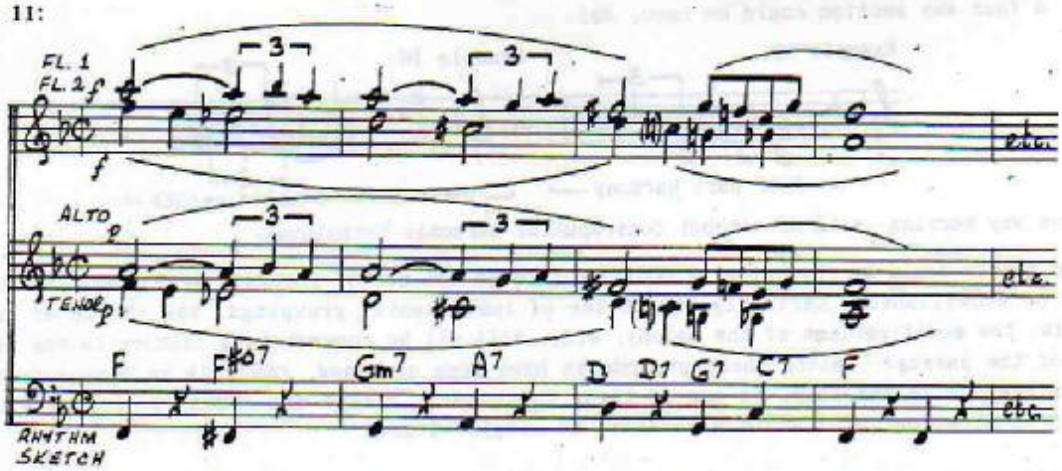
In the above example, the melody could be a vocal solo, a solo on any single instrument, unison or octave reeds or brass, or unison or octaves with mixed instruments. This may be regarded as an example of scoring at its most simple and basic level. The melody is unadorned, or uncluttered, by any other element, while the harmonic progression, pulse, and any incidental accompaniment is assigned to the rhythm section. (The chords are written out for the pianist, but in the overwhelming majority of cases, chord *symbols* would be sufficient.)

Although this example offers little for discussion, be not deceived. Depending on the quality of the melody, the proficiency of the rhythm section, and the tone quality of the soloist or unison grouping, the very simplicity of this type of passage can be appealing. Although it could not be retained for a prolonged period without becoming monotonous, it can provide:

1. A means for clearly establishing the basic theme at the beginning of an arrangement, and since the scoring can not get much simpler than this, it is easy to build from.
2. An effective contrast during or after a more complex area.

It also provides the essential ingredients of commercial dance music: Melody and rhythm.

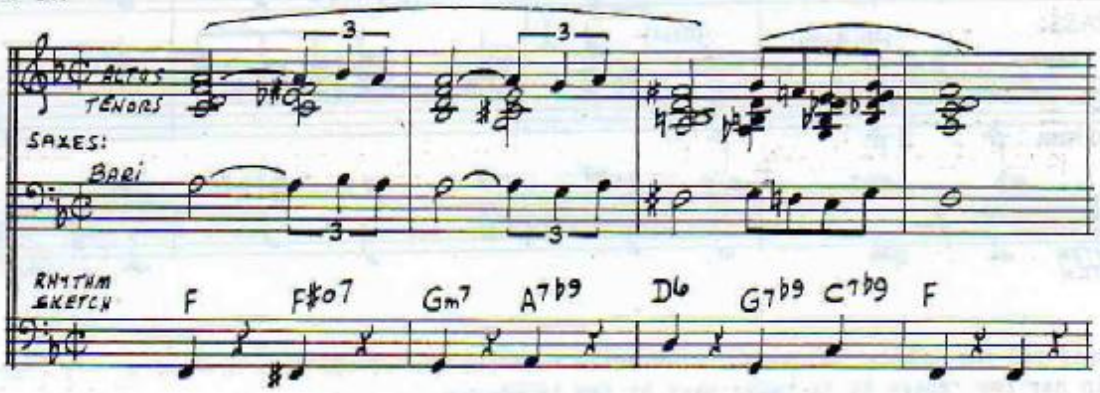
Example 11:



Here the melody is "thickened" a little with duet harmony. The melody with the given harmony is not suited to "note against note" duet harmonization; therefore the second part has some individuality, both melodically and rhythmically. Nevertheless, it does not have enough stature to be regarded as an accompanying melody, but simply provides a light and interesting harmonization.

The example uses a "double duet", with two flutes in the upper octave, alto and tenor saxophones in the lower. (Note different dynamic marking.) A single duet with any one of a variety of combinations could be used instead, or the double duet as it stands could be given a different instrumentation.

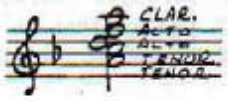
Example 12:



The melody here is harmonized in standard "four part, doubled melody" for five saxes. No significant new element appears, only a "thickening" of the main element. Of interest is the use of the Minor 9th on the A^7 in bar two, and the G^7 in bar three. These give a distinct *appoggiatura* feeling to the roots in the melody.

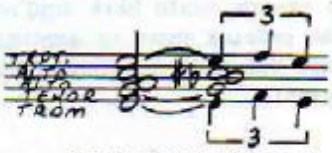
This same harmonization, or one similar, could be used with brass instead of saxes, or taken up an octave with clarinet lead, as:

Example 13:



or performed with mixed instruments, as:

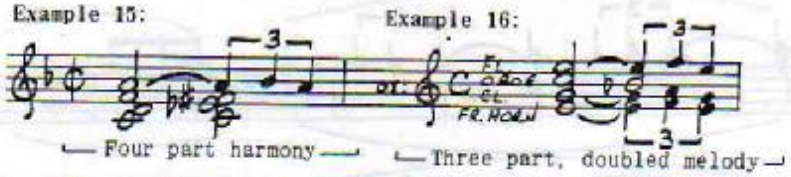
Example 14:



(more favorable key)

Further, a four way section could be used, as:

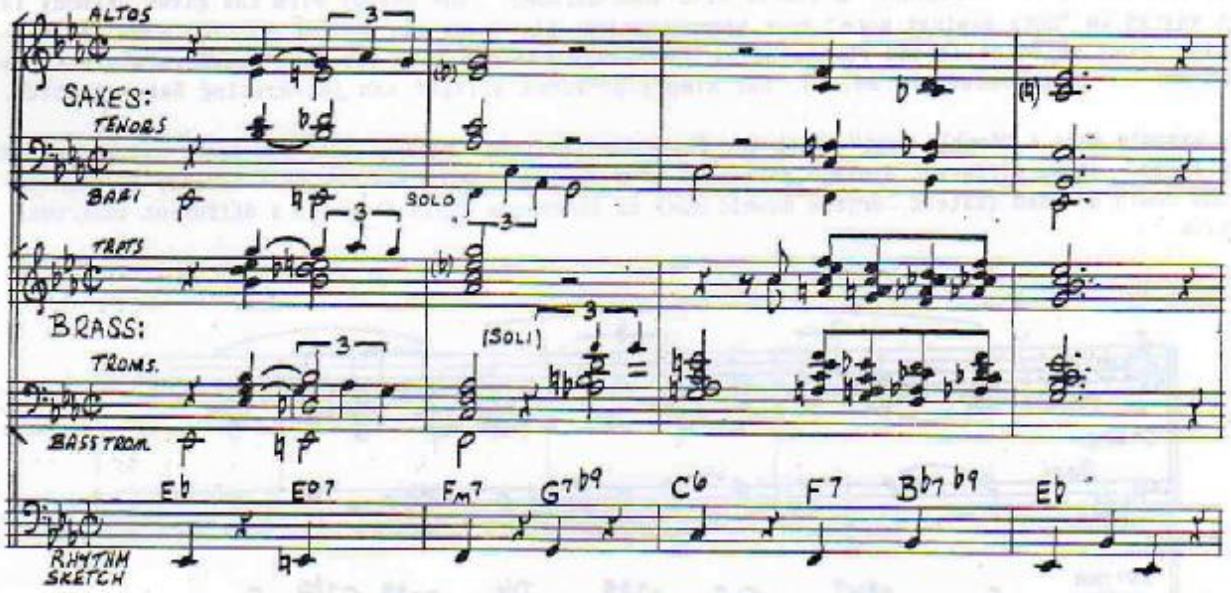
Example 15: Example 16:



or a three way section, with or without contrapuntal harmonic techniques.

Also, the melody could be rhythmically modified through the use of rhythmic anticipations, etc., or it could be embellished. Certainly the choice of instrumental groupings, the choice of harmonic techniques, the modifications of the melody, etc., will all be contributing factors to the artistic quality of the passage. Since these procedures have been examined, there is no necessity to deal with them again. In any case, no one of these things will change the essential analysis of this type of orchestration. The score will still be single element.

Example 17:

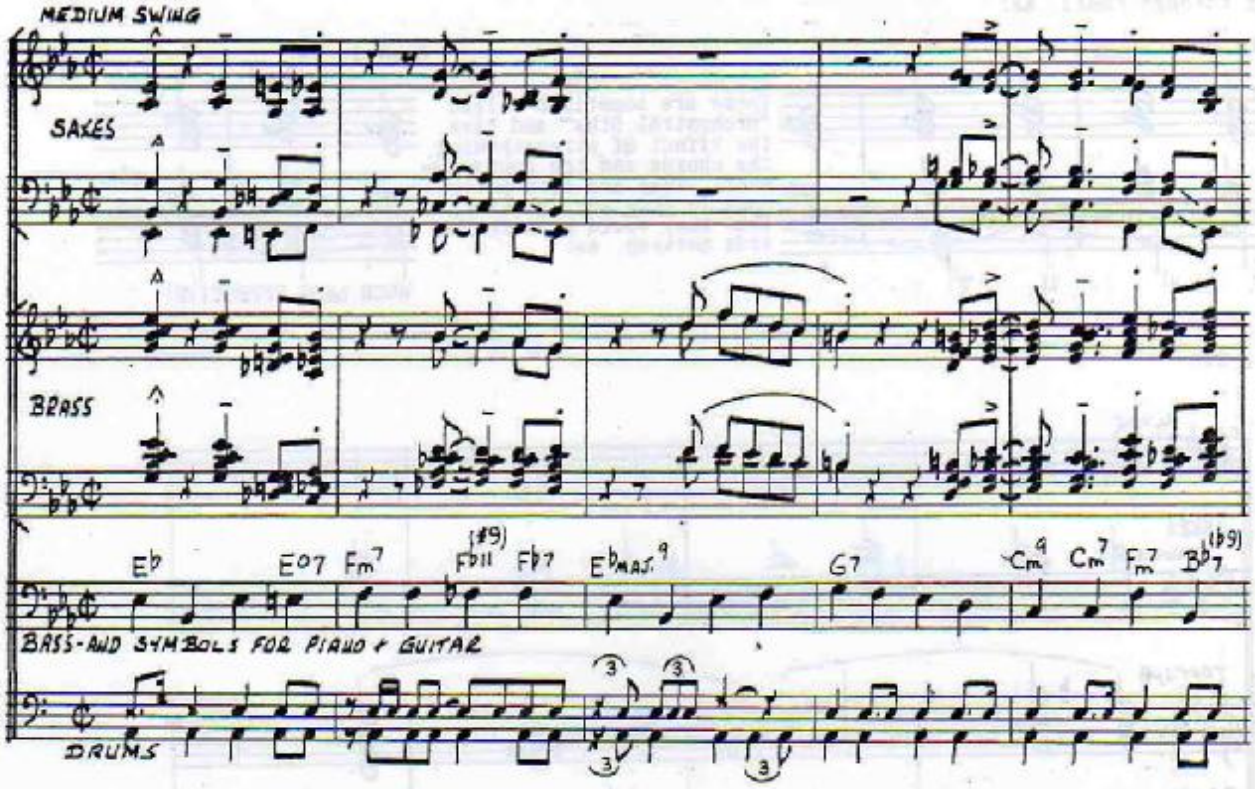


This example has the melody "thickened" powerfully with the use of the full orchestra. It changes octaves in bar two, where it is taken over by the trombones.

The use of the baritone and bass trombone on the opening E♭, or the appearance of a brief independent baritone part to smooth over the second bar, do not really constitute new elements. It is still basically only a harmonization of the melody. An anacrusis has been added in bar three, for the same reason as the baritone figure in bar two: to cover the "seam".

The first bar is powerful. The high trumpets supported by a full chord in which the trombones are solidly placed will give a dynamic result. The eighth notes in bar three are harmonized in four part sectional style in the trumpets, with the trombones doubling an octave lower. This is a common voicing for eight brass, producing a clear doubling of the melody with a heavy wall of harmony. The altos and tenors could have duplicated the trombones at this point, but an "abridged" version, without the passing chord or subsidiary chordal tones, was used instead, mainly to show that it can be done this way. The last chord is a conforming and acoustically sound four part voicing, covering three octaves.

Example 18:



This is another "sectional" harmonization, using the full orchestra, which will produce a unified and decisive sound. The trumpets are in close four part harmony, with the trombones duplicating an octave lower, except in bar two where, to avoid taking the brass too low, the trumpets move into unison. The octave brass in bar three will have an emphatic and dramatic effect. The baritone is performing a bass function while the remainder of the saxophone section is simply filling out the harmony.

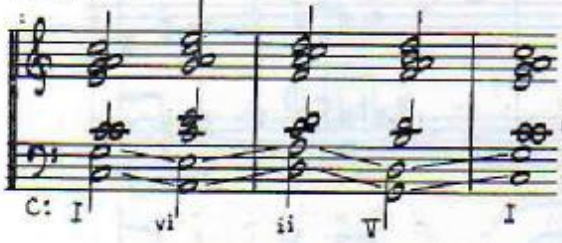
The drums are filling the holes with figures which have been, in this case, written out. However, the part could have been written as:

Example 19:

Even if "fills" were not indicated at all, it is likely that by the second rehearsal the drummer would put something in the spaces!

The parallel 5ths used in the bottom parts in bar two are of the familiar *stylistic* chromatic type. Those used in bar five are also quite common in full orchestra scoring, *when the bottom part is moving through roots*, as:

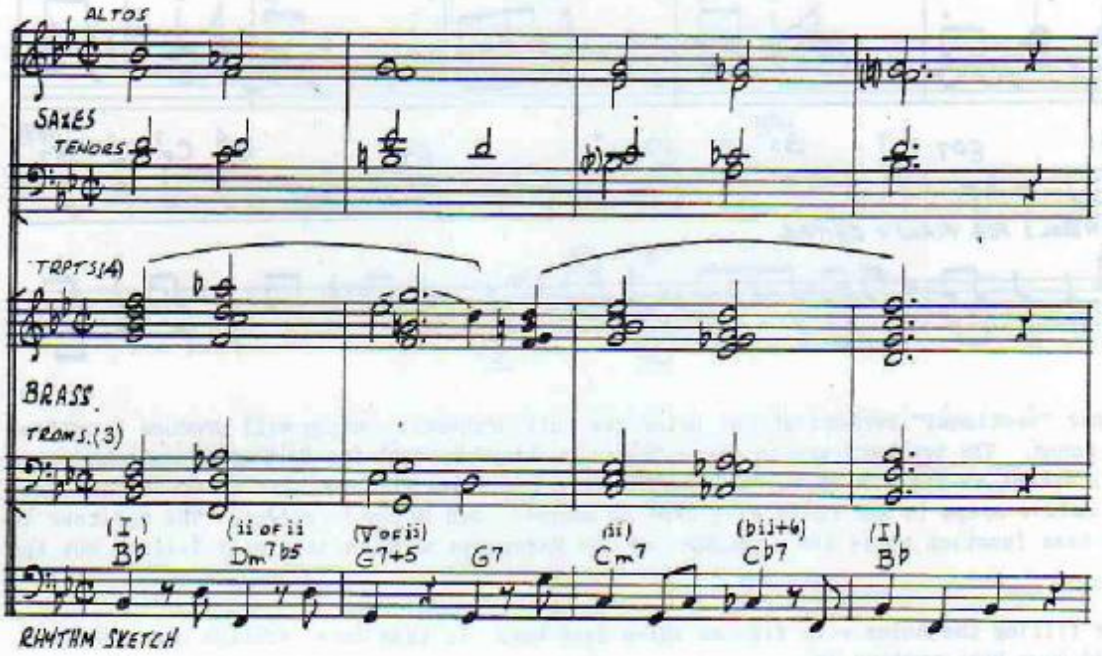
Example 20:



These are sometimes called "orchestral 5ths" and have the effect of strengthening the chords and the root movement. They are much better *open* in this way, however, than they would be with the 3rds between, as:

Example 21:

Example 22:

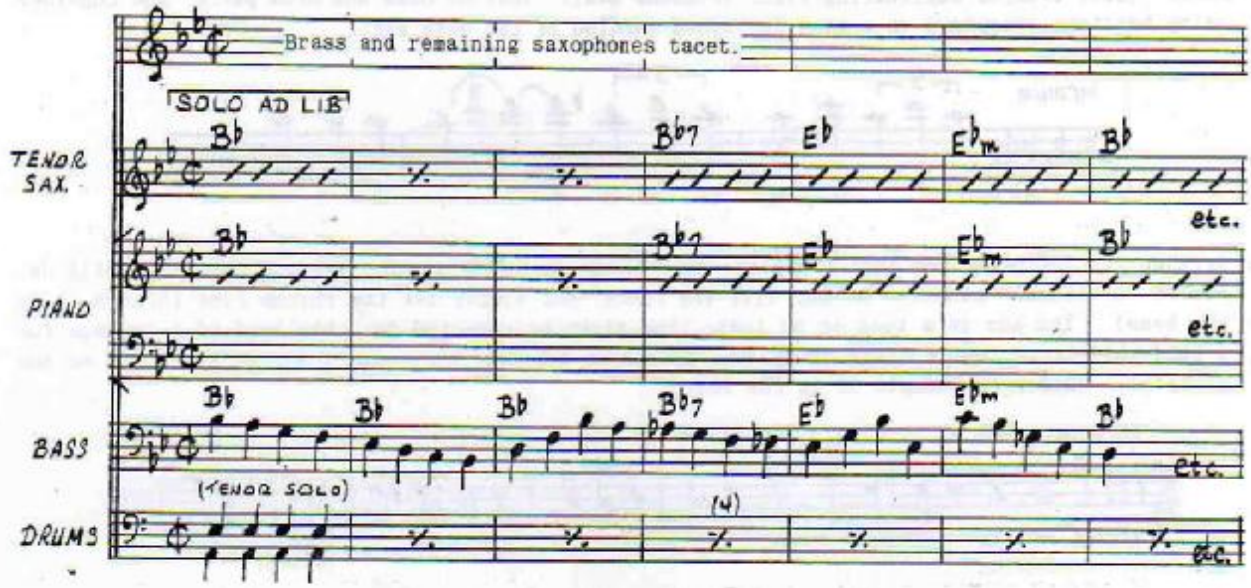


This example is calculated to have a broad, rich, and sustained sound. The first trumpet is in a register which allows a vibrant, singing quality, and the trombones offer firm support. The saxophones "bridge" the gap between the trumpets and the trombones and, while they will not be as powerful as the brass, they are in a good resonant register.

The trombones could have been written higher to join the trumpets, with the saxophones taking the bottom level of the harmony, but since this instrumental combination doesn't contain a baritone saxophone, it was wiser to use the trombones as they are in order to achieve "depth" from the low bass notes.

The string bass uses an occasional modification of the basic "two in the bar" beat. The passage is rhythmically dull, and the heavy "note for note" harmonization could produce a "plodding" effect. The modified bass part will help to move it a little.

Example 23:



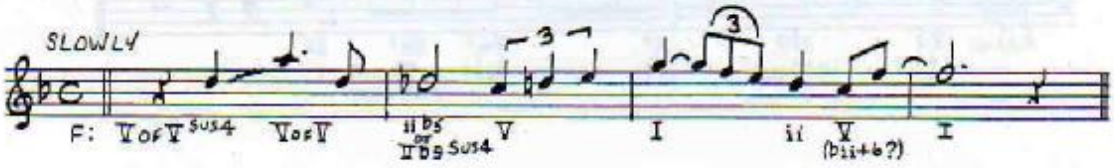
This example shows an improvised jazz solo without any accompaniment other than that provided by the rhythm section. A background could enter, perhaps, in the next sentence or the solo could continue with just the rhythm section. Sometimes it can be very effective to use only part of the rhythm section initially (e.g., just the bass, or just the drums, or only the drums and bass, etc.) and bring in the other member or members at a later point.

Some jazz soloists prefer only rhythm section accompaniment, as in this example, claiming that written backgrounds often get in the way of personal melodic interpretation. With unsympathetic backgrounds, the objection is easy to understand. Ad lib piano solos, particularly, are often better with little or no written background, because the pianist may often change or modify the harmony along with his melodic invention. A background of too demanding a nature could impede his improvisation.

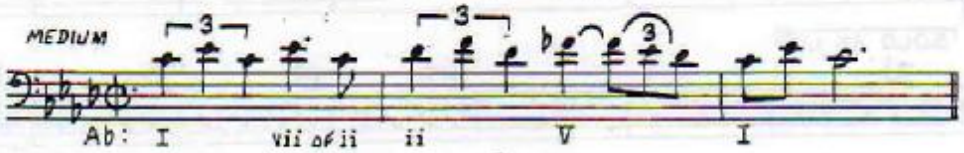
ASSIGNMENT 13

Note: In all of the following exercises, the term "arrange" will be used as a direction to harmonize and orchestrate in the manner and for the instruments indicated.

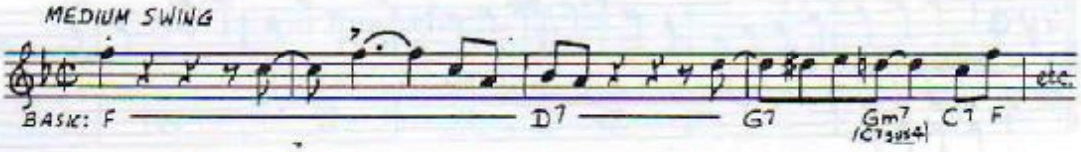
1. Arrange the following for four trumpets, four trombones, five saxes (2,2,1), plus rhythm section, in a "single element" manner. AIM: Rich, full, balanced. (Refer to Example 22 in the text.)



2. Arrange the following for eight brass (4,4) with trombone lead (open) and harmon mute trumpets above (first trumpet duplicating first trombone 8va). Include bass and drum parts, and consider using baritone saxophone on a more sustained version of the bass part.



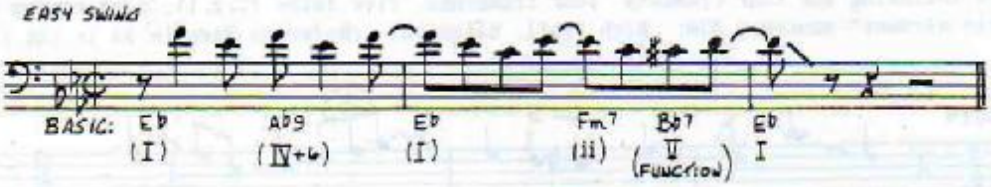
3. Arrange the following for four trumpets, four trombones, five saxes, four rhythm, in a solid decisive "sectional" manner. Do not fill the rests, but simply let the rhythm ride through (4 in bar bass). The key is a tone or so lower than might be expected for this kind of a passage for a band this large, but a clear crisp quality can be achieved here, and a higher key could be too powerful. (Refer to Example 18 in the text.)



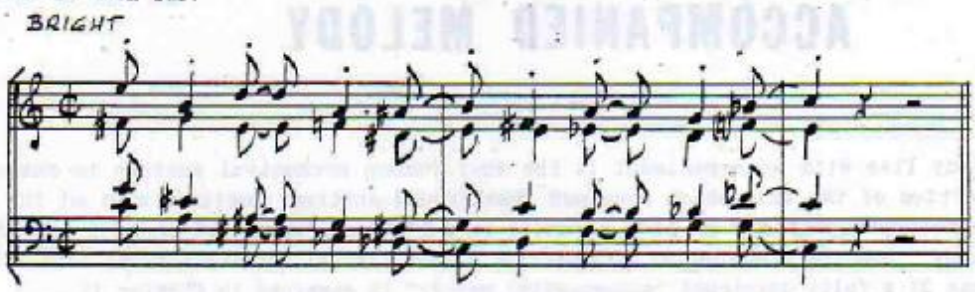
4. Arrange the following for three trumpets, three trombones, four saxes (2,1,1) plus rhythm section. Have the melody change octaves at some point, taken over by the trombones or saxes, or both, while the trumpets rest. Bring trumpets back for closing. (Refer to Example 17 in text.)

5. Arrange the following for four trumpets, two trombones, two french horns, four saxes (2,1,1) plus bass, guitar, drums. Powerful, dramatic, single element orchestration, with brass predominating, perhaps in octaves.

6. Arrange the following for three trombones, two tenors and baritone saxophones, plus rhythm sketch. Single element with saxes fused into the trombone sound.



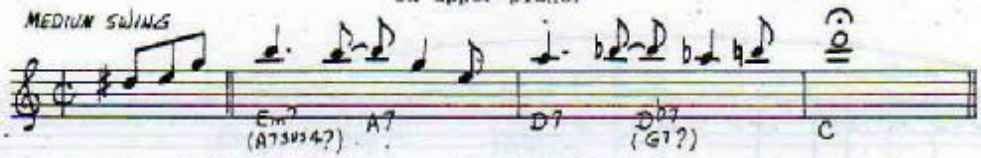
7. Orchestrate the following four part passage for two trumpets and trombone in straight mutes, flute, three clarinets and bass clarinet, bass, guitar and drums. AIM: Lightness and clarity. Suggestions: Use flute on melody 8va up; Use the bass and drums, and possibly the guitar, on only the first beats of each bar.



8. Arrange the following in a heavy single element style, with chords covering the full orchestral range. Instrumentation: 8 brass (4,4), 5 saxes (2,2,1 - with low C available on baritone) and four rhythm. Give two examples:

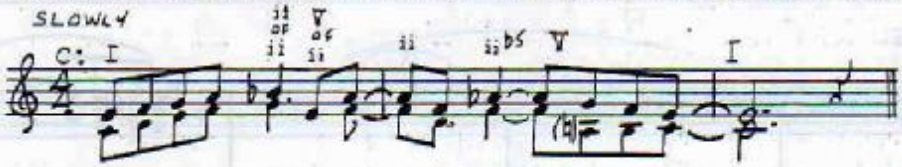
a. General four - five part level of harmony.

b. Poly-harmonic effect in two planes, trumpets on upper plane.

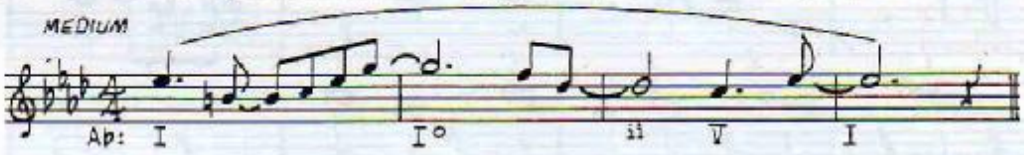


*Pick-up need not be fully harmonized; perhaps just first trumpet, or octave brass.

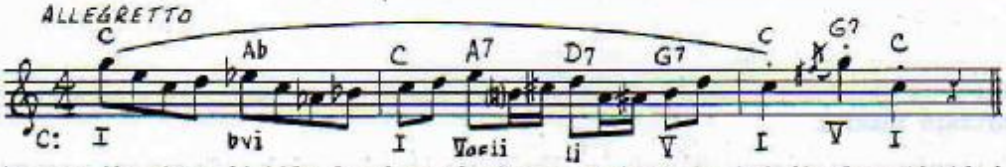
9. Basic duet is given. Orchestrate for three trumpets, one trombone, two French horns, four saxes (2, 2), in "double duet" fashion. Include string bass and rhythm sketch. AIM: Dramatic simplicity.



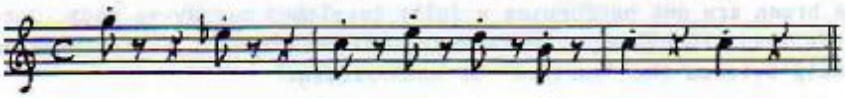
10. Arrange the following for "Clarinet lead" over saxes (Clarinet, 2 altos, 2 tenors) supported or duplicated 8va lower, by four trombones. Single element. Include rhythm sketch.



11.



Arrange the above lightly for four clarinets, perhaps in triadic form (doubled melody 8va), in duet form, or a mixture of unison (or octaves) and harmony. Use a bass clarinet at the bottom on a fundamental bass part. Use five muted brass (3,2) lightly touching the high points of the melody as, for instance:



Write rhythm section parts in similar rhythm to the brass.

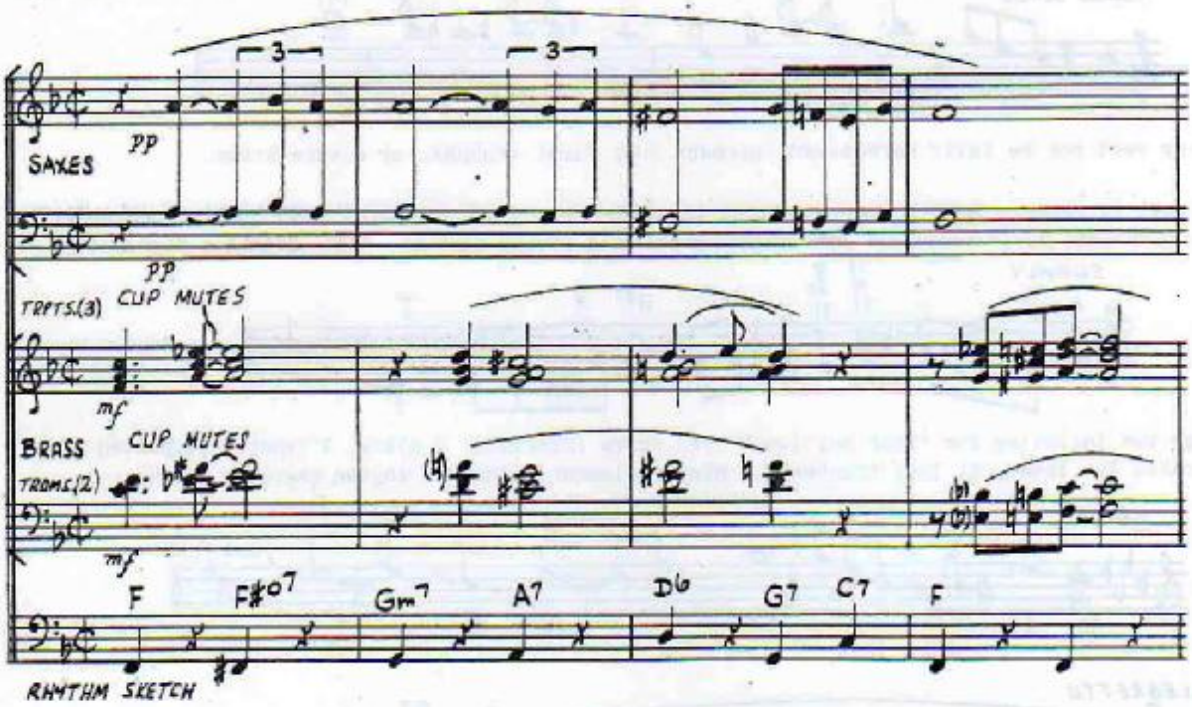
Chapter 16

ACCOMPANIED MELODY

A clear main melody line with accompaniment is the most common orchestral texture in commercial scoring. That section of the text which examined "background writing" outlined most of the basic techniques. The accompaniment may be of a *harmonic* or a *rhythmic* nature, without a significant "accompanying melody", and the examples in this section of the text illustrate various forms of this approach. (The use of a fully developed "accompanying melody" is examined in Chapter 17.)

Note the comments which follow the given examples. The MELODY will be designated as Element A and the ACCOMPANIMENT as Element B. The rhythm section will be indicated in abbreviated form, except in those cases where it is used as a significant factor in the accompaniment.

Example 24:

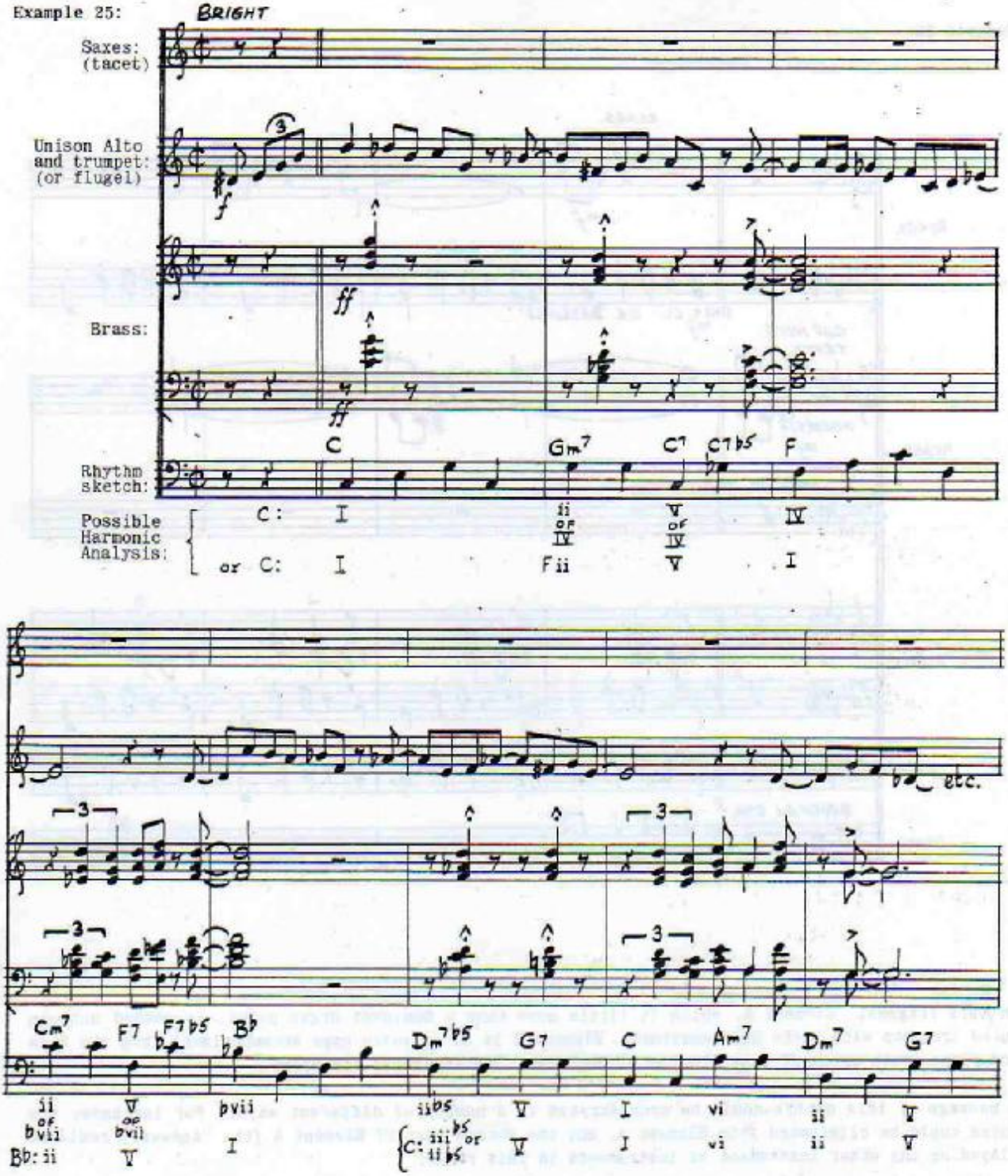


In this example, Element A is presented by reeds in octaves, and Element B is basically a *harmonic* accompaniment, with rhythmic shading.

The use of unison or octaves in one element against harmony in the other is the usual procedure in "2 element" scoring. It provides effective contrast and retains clarity.

While the brass are not performing a fully developed melody as such, note that the relationship between the lead trumpet and the reed line is effective. Always keep an eye and an ear on the relationship between the "surface" of each element!

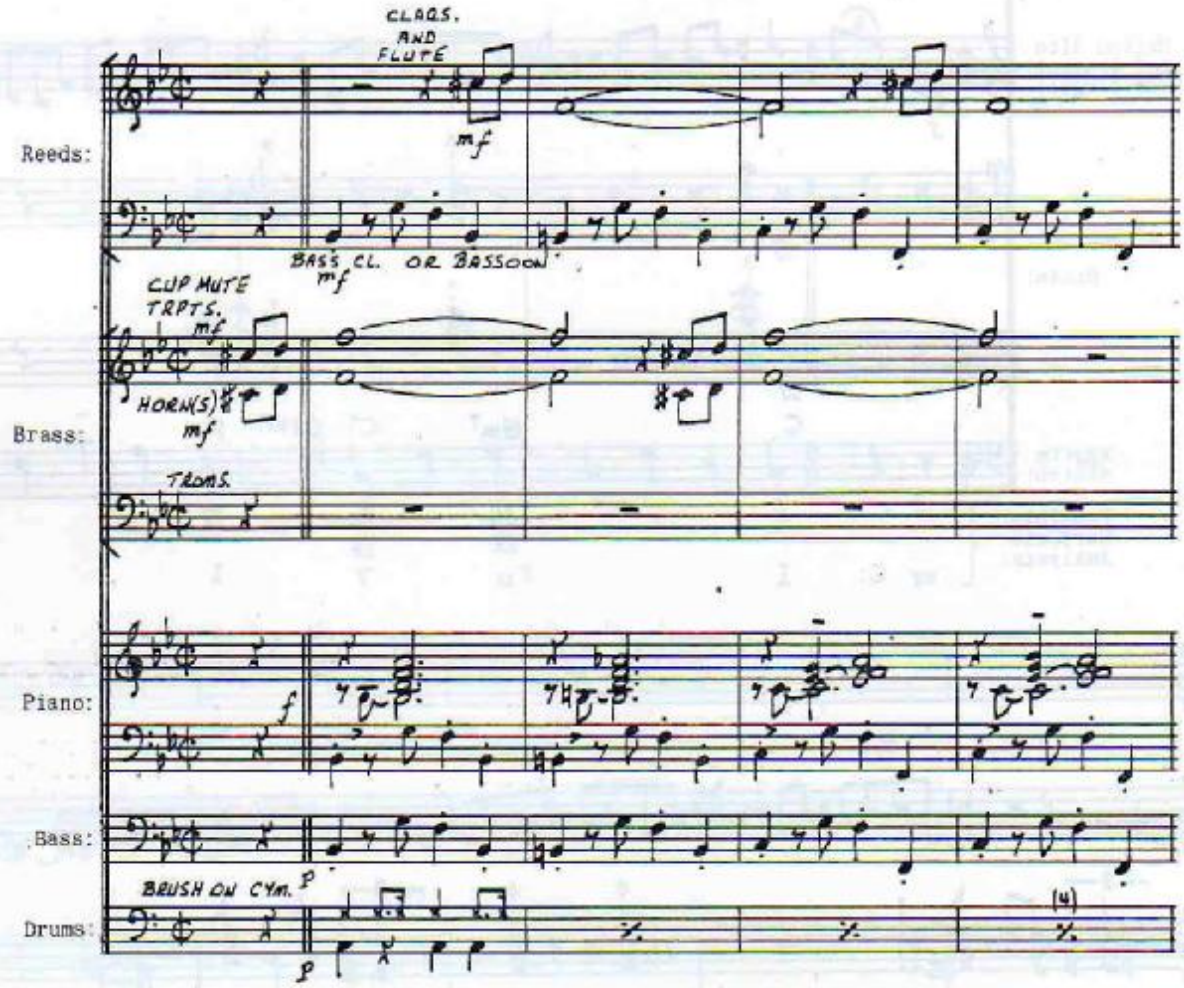
Example 25:



Element A is a mobile line given to unison alto and trumpet (or flugel horn). Element B consists of rhythmic "punctuation" in the brass. The punctuation is in a syncopated style to provide rhythmic drive, and is rhythmically situated so that it will not cover or conflict with the lead line.

The brass chords are generally at a five part level of harmony and have fairly high tension. This will aid their percussive effect. Open brass are used here but, if less volume is desired, straight mutes could be all right.

Example 26:



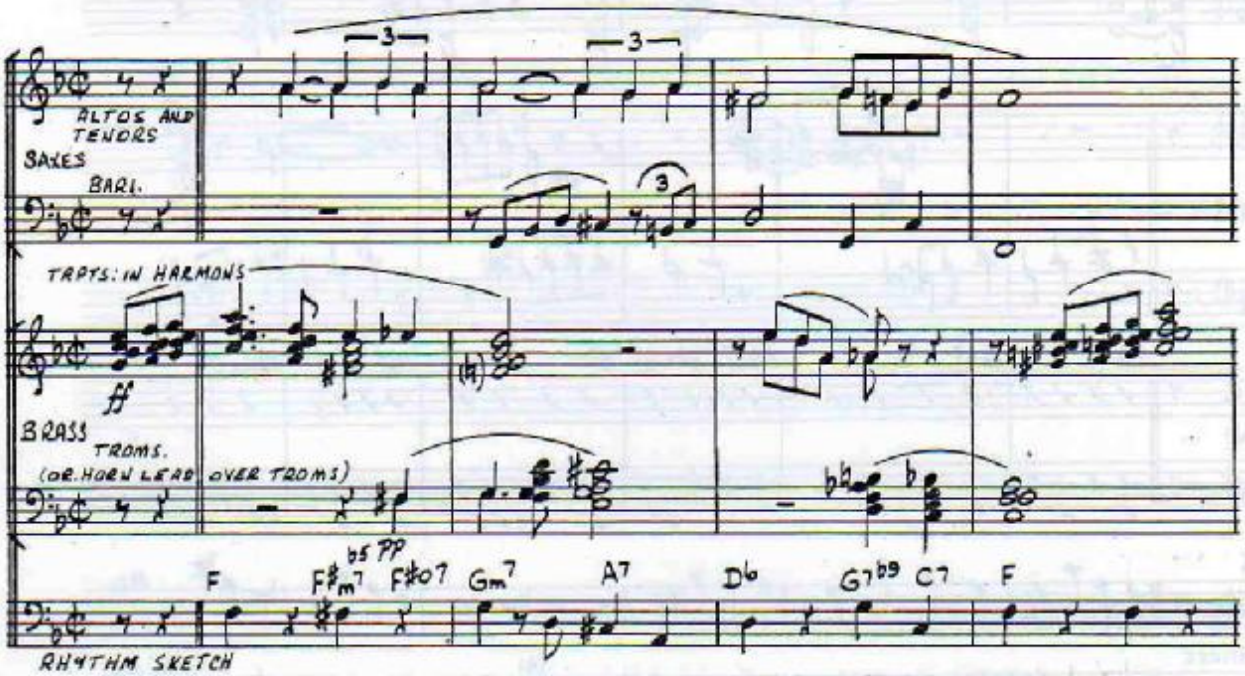
In this fragment, Element A, which is little more than a dominant organ point, is passed between muted trumpets with horns and woodwinds. Element B is an *ostinato* type accompaniment from the bass and piano, with optional bass clarinet or bassoon. The trombones are tacet.

A passage of this nature could be orchestrated in a number of different ways. For instance, the horns could be eliminated from Element A, and the second part of Element A (the "answer") could be played on any other instrument or instruments in this range.

In this example, the harmony of Element B is in the right hand of the piano, but it could be performed by light woodwinds and/or horns.

Element B may contain "subelements". That is, the accompaniment may consist of more than a single idea and may itself be a woven texture. To illustrate:

Example 27:

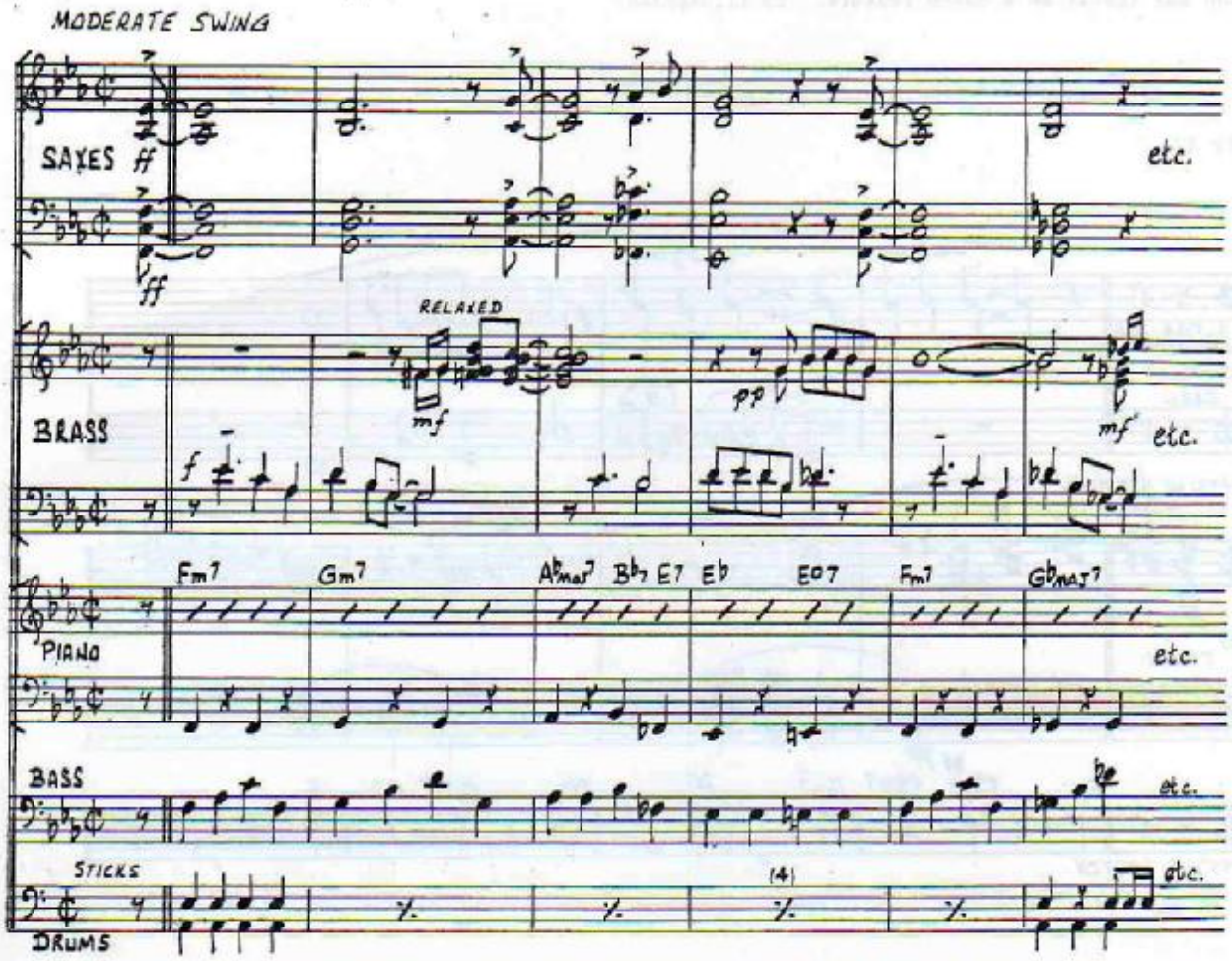


Element A is played by four unison saxophones. (Unison was chosen, rather than octaves, to avoid congestion with the trombones in bar two.) At first glance it might seem that the accompaniment could obscure the main melody, but the trombones are marked pianissimo and the trumpets are in harmon mutes, which project well but are not loud.

Element B is actually quite similar to the simpler version of this passage shown earlier (Example 24) but the texture is richer. Although the total effect is simply an "accompaniment", it is composed of three individual ingredients. The muted trumpets and the trombones provide the main subelements, while the baritone contributes an elaborated bass part. Notice the *"interlocking"* of the various elements and subelements. *Each "flows" into the other, and care is taken with the relationship between the "surfaces" of each element.*

Notice further how, in the last bar and a half, the baritone becomes, in effect, a fifth trombone. The baritone saxophone, in fact, can be used as the harmonic bottom of a trombone section, or of a full brass section, at any time.

Example 28:



Trombones were chosen to carry Element A in this example. The line is particularly suited to trombones because, although rhythmic, it has a bold rather than a fluid quality.

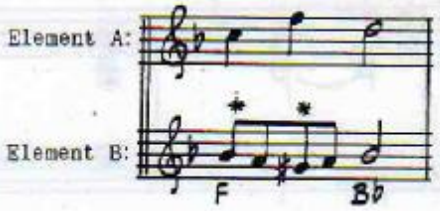
Element B consists of a "cushion" of harmony of a parallel nature in the saxes, plus a subelement of rhythmic figures from the trumpets. The trumpets are open, but are situated in the middle register and given with a low dynamic marking. The use of upper functions in the voicing of the saxophone and trumpet chord in bar three is worth remark, as is the use of "imitation" in the trumpet figures in bar four.

A guitar is not included here, but could be used either for unamplified rhythm or, with amplifier, in unison with the trombones.

In the foregoing examples, Element A has been a single line in unison or in octaves. The following fragments illustrate the reverse procedure. Element A is "thickened" harmonically and Element B is more sparse.

In some cases, the harmonization of Element A will restrict the freedom of Element B. Particularly in situations involving **Accented Inharmonics**, it is *often necessary to make adjustments.* To illustrate:

Example 29:

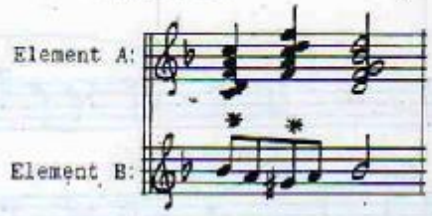


Both elements in unison.
No trouble

Example 30:

Element A in unison.
Element B harmonized.
No trouble

Example 31:



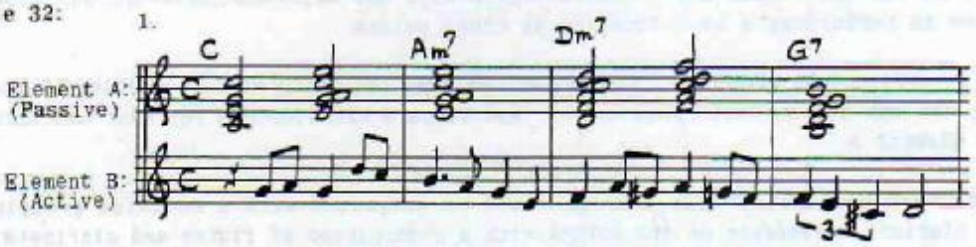
Element A harmonized.

Result: Harmonic "clash" at accented points. This may lead to too much density, congestion, and a "blurred" quality.

Element B will enjoy more freedom if Element A is of a passive and sustained nature. In the following example, Element A is harmonized but is much more active in the second illustration. Element B is the same line in both cases; it is satisfactory in the first illustration, but unacceptable in the second:

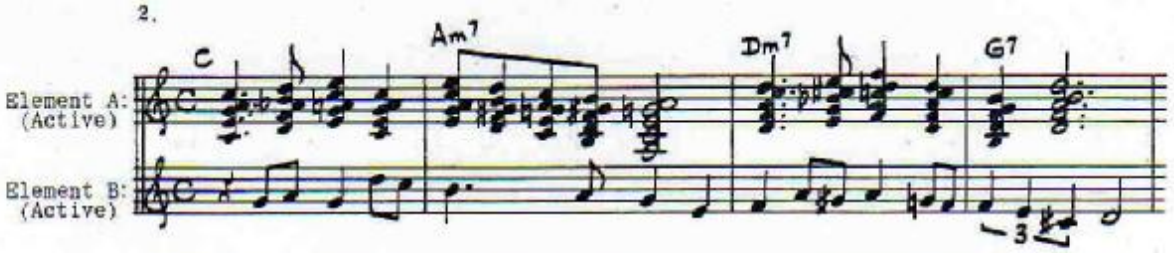
Example 32:

1.



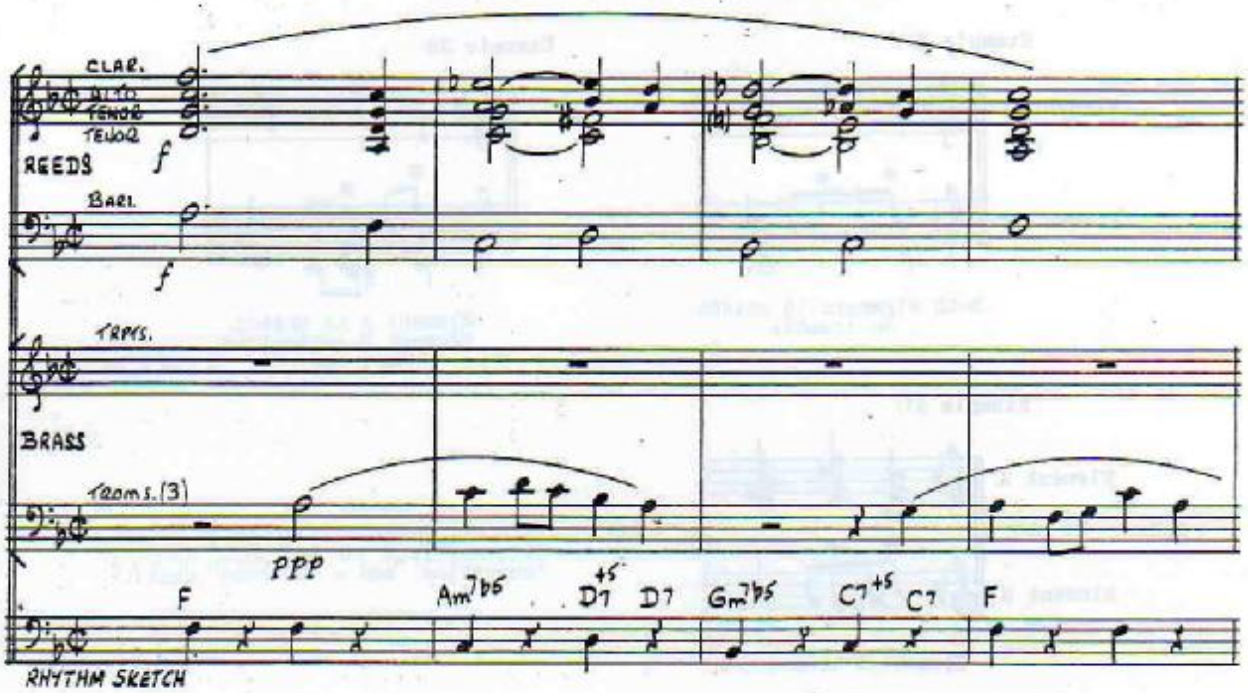
Element B, a fluid line using inharmonics, is acceptable here.

2.



Here Element B is very poor. It is much too active, and clashes all along the way.

Example 33:

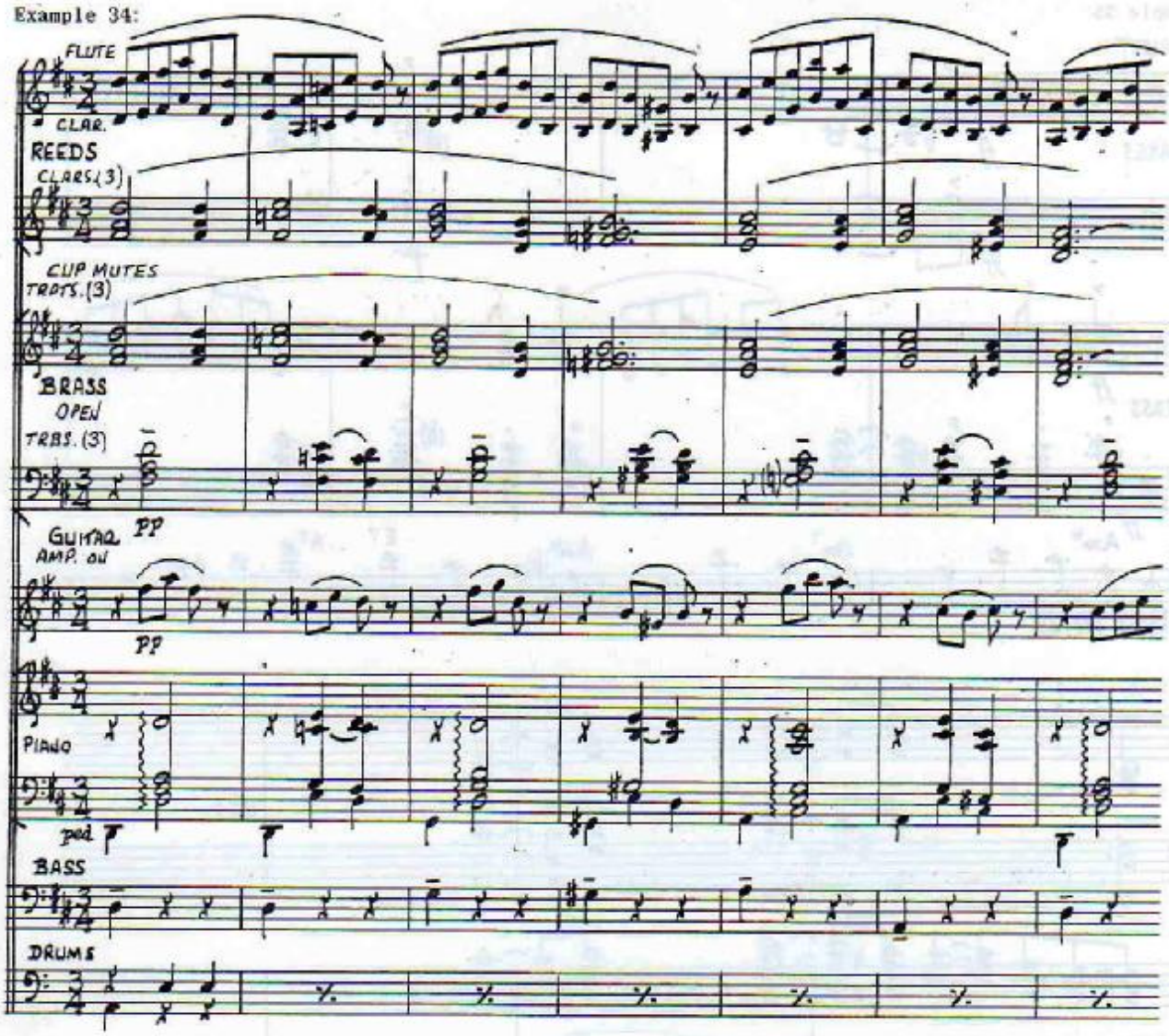


Element A is harmonized *sectionally*, with clarinet lead over saxophones. The harmony is at a five part level, except at the Ami$^{7\flat5}$ and Gmi$^{7\flat5}$ chords which will not allow satisfactory 9th voicings here. The baritone is performing a *bass* function at these points.

Element B is given to soft unison trombones, and almost achieves the stature of an individual melody. It threads its way through the harmonic progression, and keeps a satisfactory rhythmic and harmonic relationship with Element A.

If the instruments were available, this passage would be effective with a woodwind grouping on Element A; a bass clarinet or bassoon on the bottom with a combination of flutes and clarinets, and perhaps an oboe, above. Element B would sound well on horns.

Example 34:



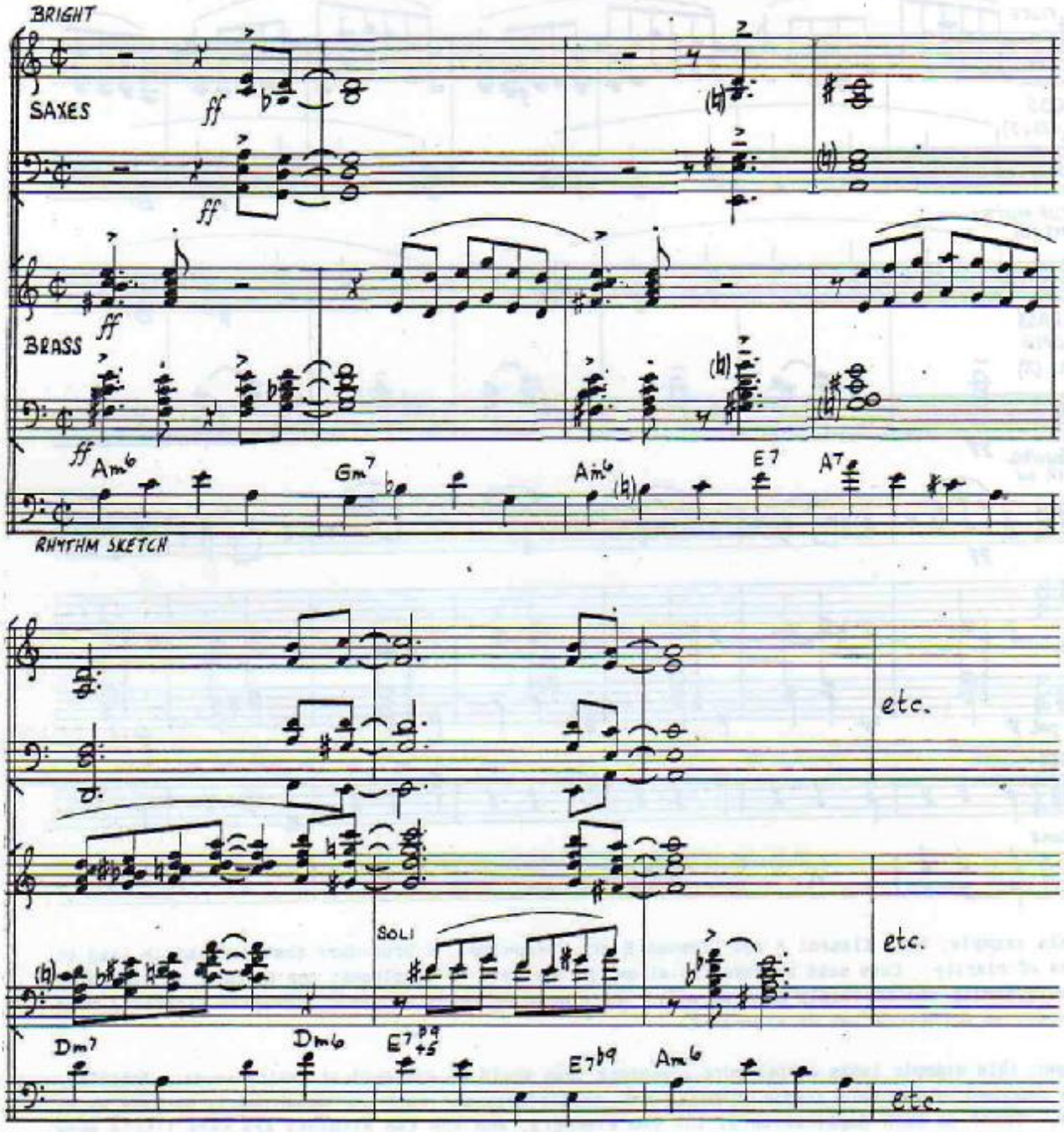
In this example, both Element A and Element B are harmonized, a procedure that can easily lead to a loss of clarity. Care must be taken to allow the elements to complement one another, rhythmically and melodically and certainly harmonically. Care must be taken to avoid obscuring Element A with too heavy an orchestration of Element B.

On paper, this example looks rather more elaborate than would be expected of a waltz score. Actually, it is composed of two very simple elements and, in performance, will not sound nearly as busy as it looks. There is much duplication of the two elements, and the two elements are very little more than one element elaborated. Further, the harmonic level is, with the exception of the occasional 7th on dominant structures, triadic.

Element A is in three part sectional harmony, with muted trumpets and clarinets duplicating one another. The flute and clarinet play a Decorated version of the Melody simultaneously in octaves. The guitar, which might be regarded as a subelement of the accompaniment, is really only "high-lighting" the decorated version of the melody with an incomplete and rhythmic doubling of it.

Element B is found in the trombones, re-inforced with the piano. This, as remarked earlier, is little more than *another duplication of Element A*. The piano left hand is also re-inforcing the bass.

Example 35:



This is an example of heavy and full scoring, which shows that one section can alternate between Elements A and B.

Element A is carried by the trumpets, with alternate harmony and octaves. The trombones support the harmonization of Element A in bars 1, 3, and 5. In bars 2, 4, 6, and 7 they take Element B, which is mainly sustained chords with the exception of the imitative melodic figure in bar six.

The saxophones enrich Element B by joining the trombones in the first four bars. In bar five Element B is solely in the saxophones, and in bar six they join Element A with supporting harmony to the trumpets.

NOTE: The "Charleston" figure: is a common rhythmic unit in jazz. When the lead of the figure stays on the same note, as it does in bars one and three in the above example, there should be some change of harmony to aid the rhythmic accent. Either a full chord change, as: Am: bii+6 I or the use of an appoggiatura, as: Am: I is preferable to: which hasn't as much "accent".

Example 36:

BOUNCE

CLARS (3 or 4)
REEDS
BASS CLAR.
LIGHTLY
TRPTS. (3) CUP MUTES
LIGHTLY
BRASS
TROMBONES (3) CUP MUTES
SOLI
(F) (F#o7) (Gm7) (C7b9)
PNO.
LIGHTLY
BASS
DRUMS

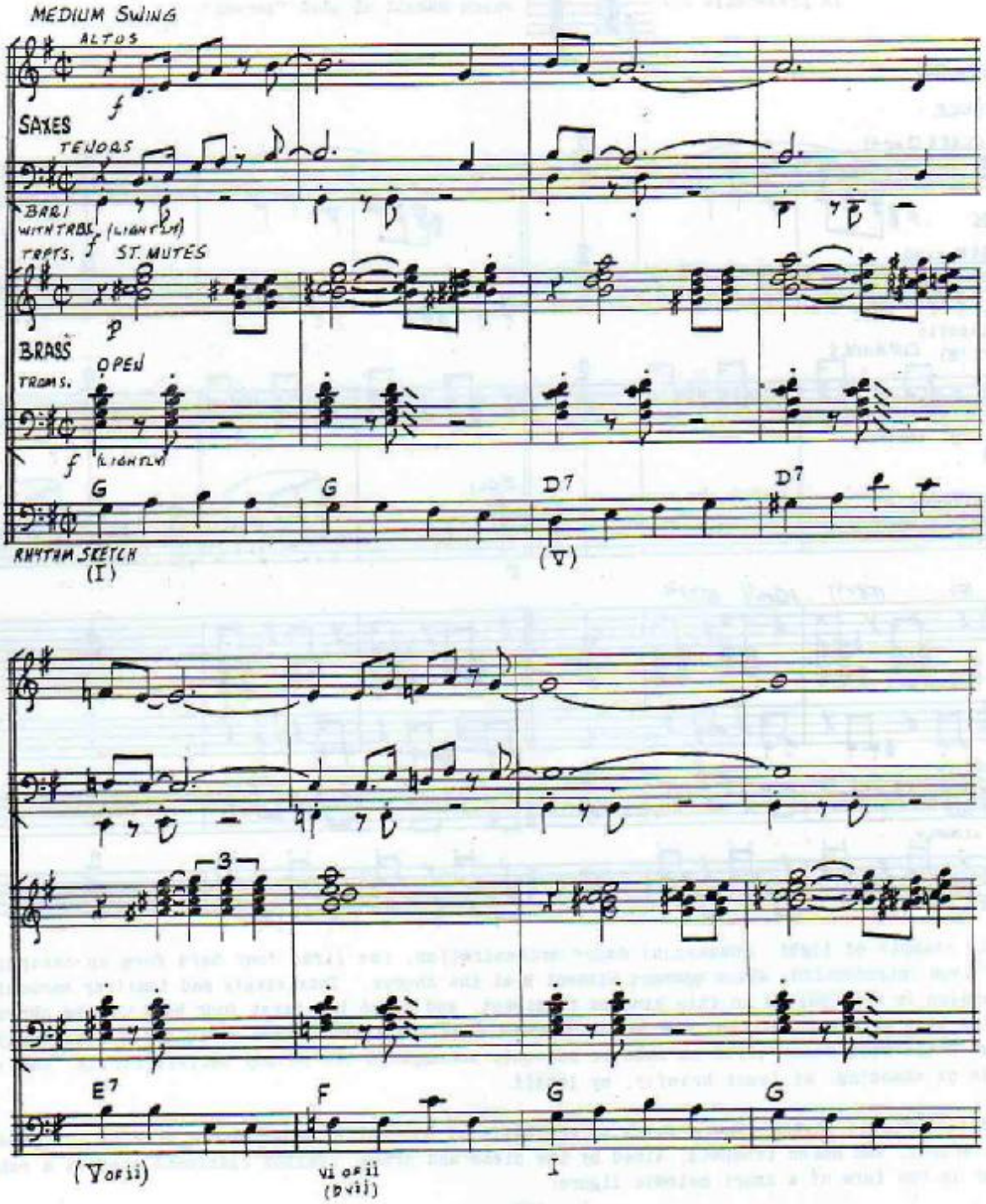
In this example of light, commercial dance orchestration, the first four bars form an ostinato "vamp" type introduction, which becomes Element B at the chorus. This simple and familiar harmonic progression is well suited to this kind of treatment, and since the first four bars of the chorus uses the same harmonic pattern, the use of *Element B* as the introduction works out conveniently. Element B has been constructed so that it not only accompanys the melody satisfactorily, but is capable of standing, at least briefly, by itself.

The characteristic rhythm figure which is the basis of Element B is performed here by the bass, bass clarinet, and muted trumpets, aided by the piano and drums. Unison clarinets present a sub-element in the form of a short melodic figure.

Element A, which is presented in alternate harmony and unison by the trombones, could just as well be a solo.

NOTE: The figure:  will be played as:  by any performer familiar with the jazz and popular idioms.

Example 37:



Element A of the above example is of simple construction, performed by altos and tenors in octaves. The original harmony would likely be a little richer, perhaps:

Example 38:

but has been "thinned out" to allow more scope for the rhythmic figures of Element B.

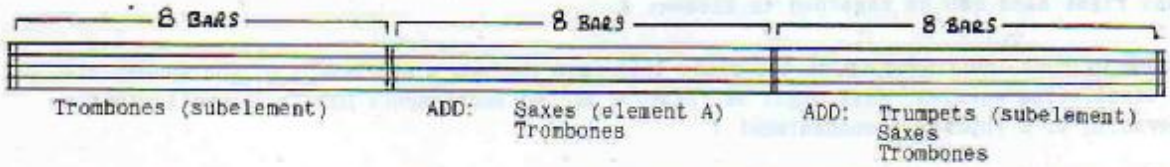
Element B consists of two subelements:

1. An ostinato type rhythmic figure in the trombones and baritone.
2. Contrasting rhythmic figures in the trumpets.

The trombone figures are percussive, based on the "Charleston figure", and have no melodic value. The trumpet harmony makes use of the upper functions, but the lead trumpet retains its allegiance to the G major scale. (The only altered tone, G♯, resolves to the A.) By themselves, the trumpets would perform an entirely different chord progression than the basic one; but in conjunction with the fundamental harmony, and situated with respect to acoustical principles, the chords used are formed from the upper partials of the basic chords. Consequently, the tension which is produced is logical.

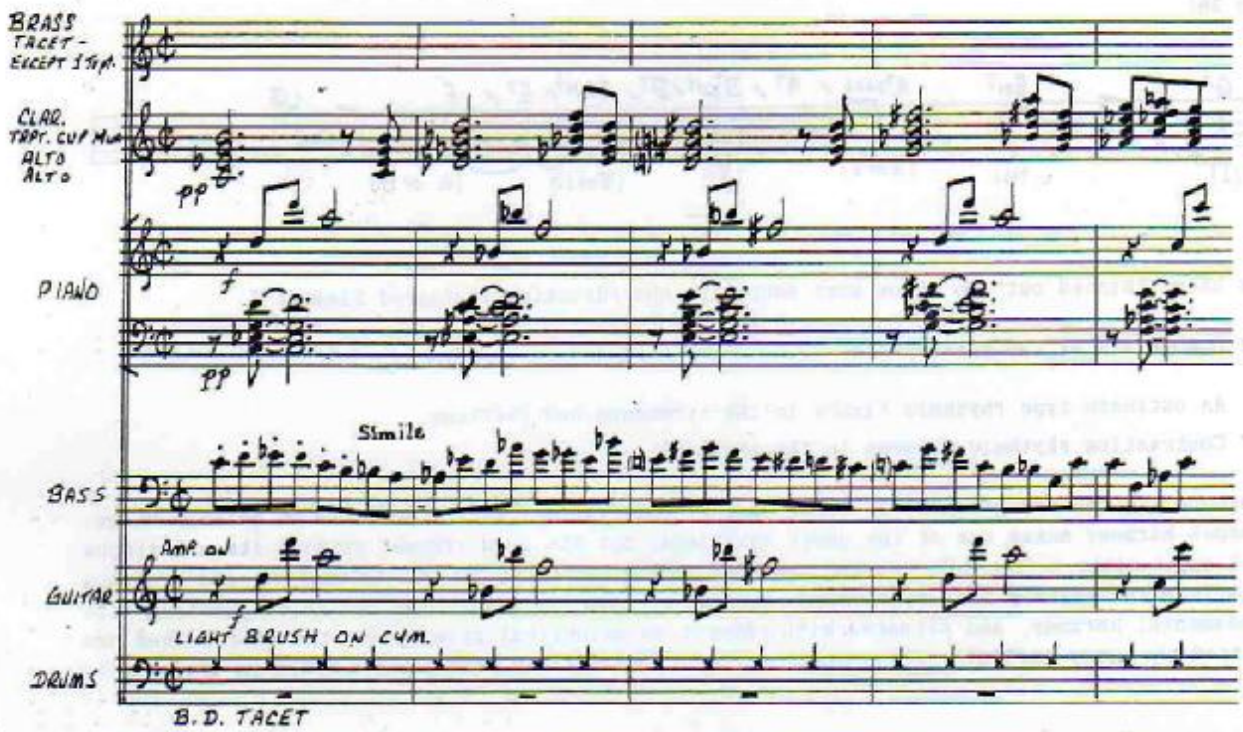
When each of the elements is reasonably self-sufficient, as they are in the above example, a "staggered entry" technique may be used. One element is heard by itself (probably, but not necessarily, with the rhythm section) and the others are progressively added to it. This technique is effective in building toward a climax. To illustrate:

Example 39:



(The entries could be re-arranged in any desired manner.)

Example 40:



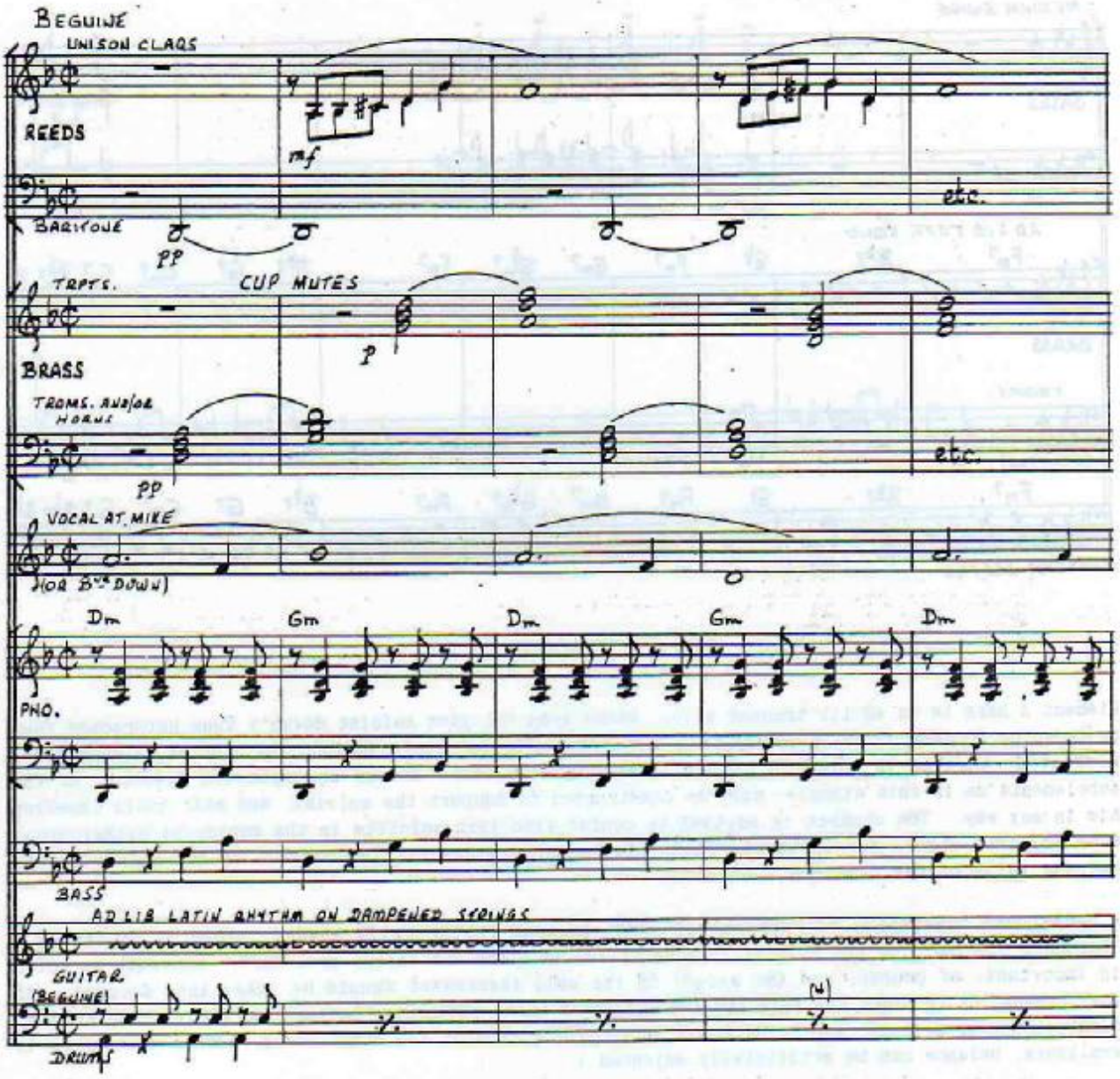
This light and romantic little fragment is sequential in nature, and makes use of upper functions, both in the main melody and in the sustained background, and they even occur to some extent in the bass line.

The overall effect is more the result of the total orchestration than it is of an accompanied melody, as in the previous examples. The repeated one bar motif heard from the amplified guitar and the piano right hand can be regarded as Element A.

The mixed group of four instruments plus the piano left hand perform a subelement of the accompani- (Due to the conflicting entries, this might be regarded as two subelements but it is really just a little elaboration of a chordal accompaniment.)

The bass performs an important subelement of the accompaniment, providing a sharp contrast with the staccato eighth notes situated in the instrument's top register. Were this line given to an instrument with more definition, say a bassoon, or were it strengthened by the addition of another instrument or two in unison with it, it might emerge as the primary element of the passage. But it is not, in this context, intended to have major significance. It is intended merely to provide contrast and an eighth note pulse.

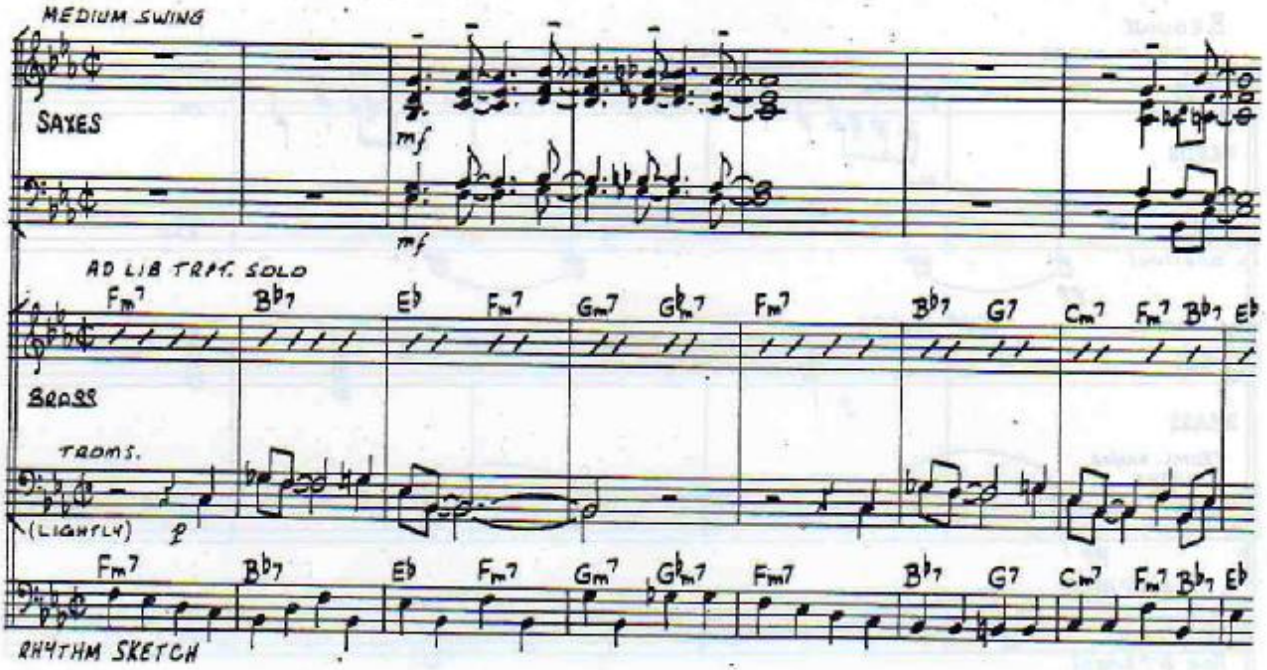
Example 41:



Element A here is a vocal solo, with Element B composed of subelements, as follows:

1. Beguine rhythm, in rhythm section
2. Chordal accompaniment from soft trombones (and/or horns) with baritone
3. "Imitative" chordal accompaniment from muted trumpets
4. Melodic "fills" from unison clarinets

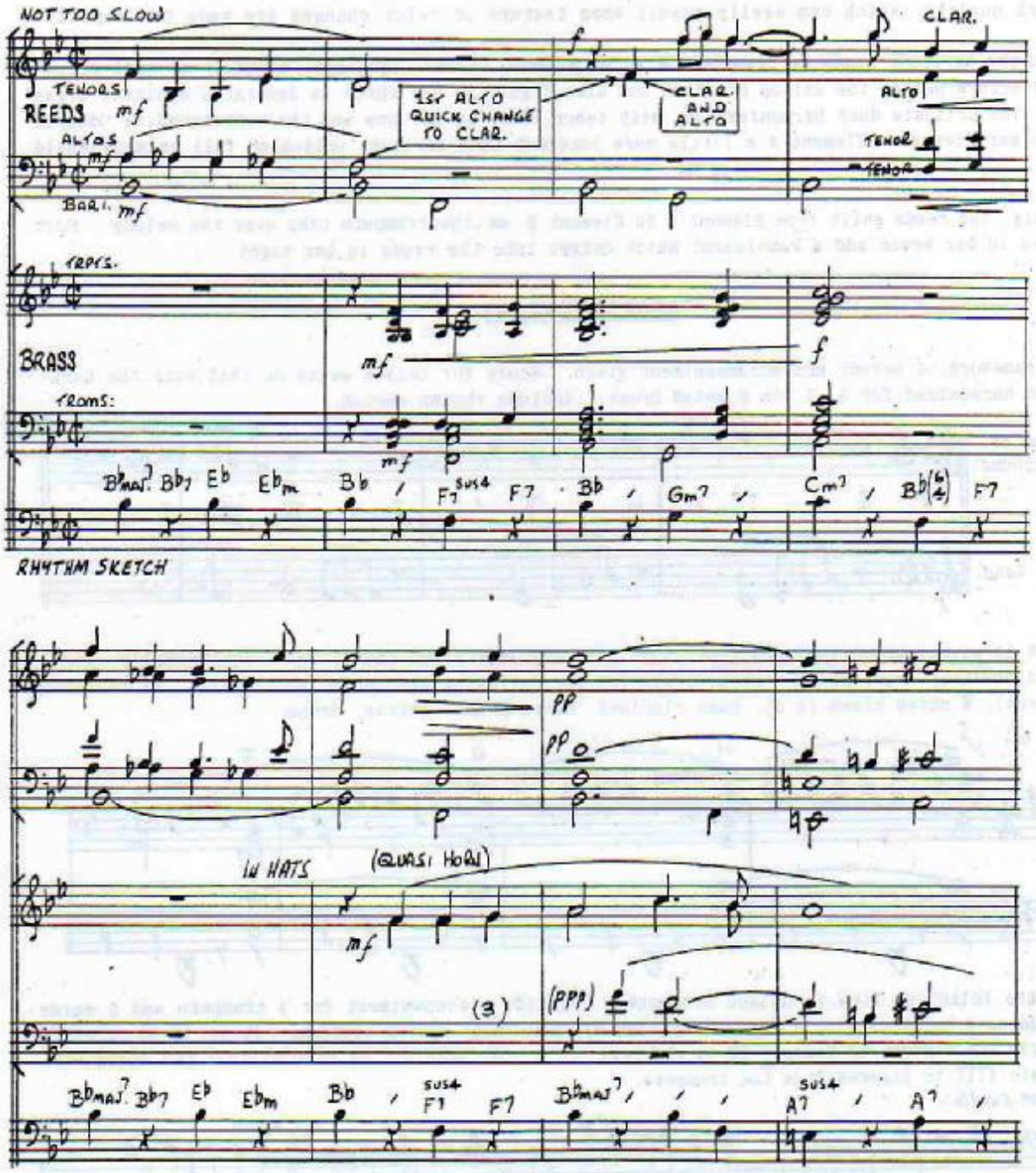
Example 42:



Element A here is an ad lib trumpet solo. Since even the jazz soloist doesn't know beforehand what he is going to play, there is no way that his line can be incorporated into the scoring calculations. Element B - whether it consists of the rhythm section only, or one accompanying element, or two subelements as in this example - must be constructed to support the soloist, and must avoid impeding him in any way. The student is advised to confer with jazz soloists in the matter of backgrounds. Some soloists might, for instance, find this background distracting because of the fairly strong melodic value of the trombone subelement.

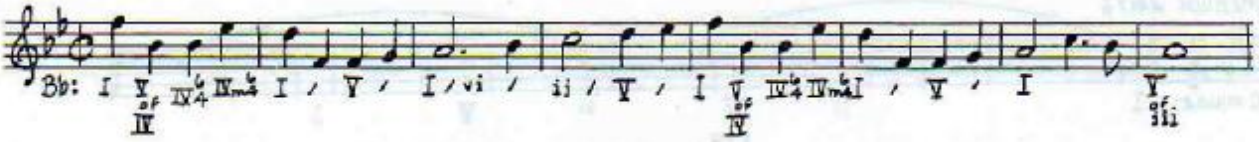
A background consisting of sustained chords, perhaps rhythmically shaded, aimed at providing a "harmonic cushion" for the soloist to work above, is often the safest procedure. Contrast in color in important, of course, and the *weight* of the solo instrument should be taken into account. An open trumpet or trombone can hold its own against a heavy background better than can a muted trumpet, a saxophone, or a flute, etc. (Although in recording studios and other areas where a microphone is available, balance can be artificially adjusted.)

Example 43:



In this example, Element A is passed between the sections, and even changes octaves in the second bar. The actual melody is:

Example 44:



The changes in texture and color are sharp enough to avoid confusion, and care has been taken to "interlock" the changes so that there are no obvious seams. This helps to avoid an undesirable patchwork quality, which can easily result when texture or color changes are made too rapidly.

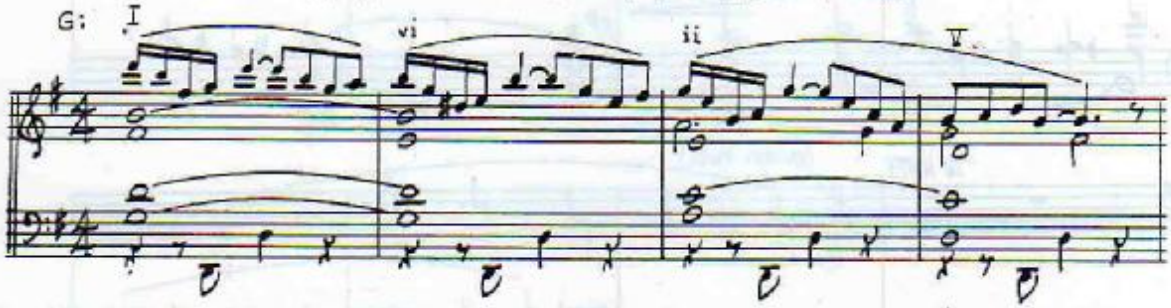
Although the baritone *could* be regarded as a "B" element in the first bar, actually no real *accompaniment* occurs before the unison clarinet and alto figure in bar three (a decorated dominant organ point). The delicate duet harmonization, with tenor lead, in bar one and the corresponding "double duet" in bar five give Element A a little more interest than straight unison or full harmony would have.

In bar six, the reeds shift from Element A to Element B as the trumpets take over the melody. Soft trombones in bar seven add a subelement which merges into the reeds in bar eight.

ASSIGNMENT 14

1. The framework of melody and accompaniment given. Score for unison saxes on lead with the background harmonized for 6, 7, or 8 muted brass. Include rhythm sketch.

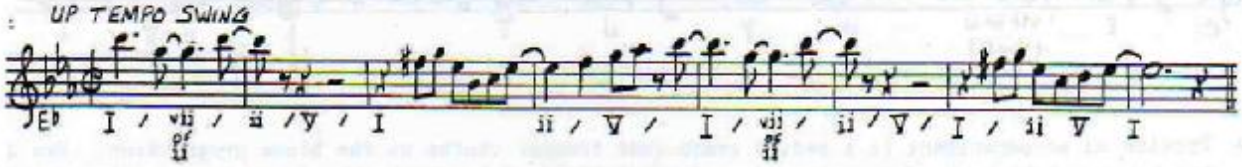
2. Sketch is given, which includes flute solo lead over sustained chords and a rhythmically embellished dominant organ point. Orchestrate for the following available instruments: Flute (lead as given), 6 muted brass (3,3), bass clarinet, bass, piano, guitar, drums.



3. Give the following line to unison trombones. Provide accompaniment for 4 trumpets and 5 saxes (including a baritone with a low "C" available), plus full rhythm section. It is to be similar in style and texture to Example 28 in the text - i.e., a "cushion" of harmony from the saxes with rhythmic fill-in figures from the trumpets.

4. Arrange the following for 3 trumpets, 3 trombones or French horns, 4 clarinets, flute, guitar, bass, drums, piano. Do in a style similar, but not necessarily identical, to Example 34 in text.

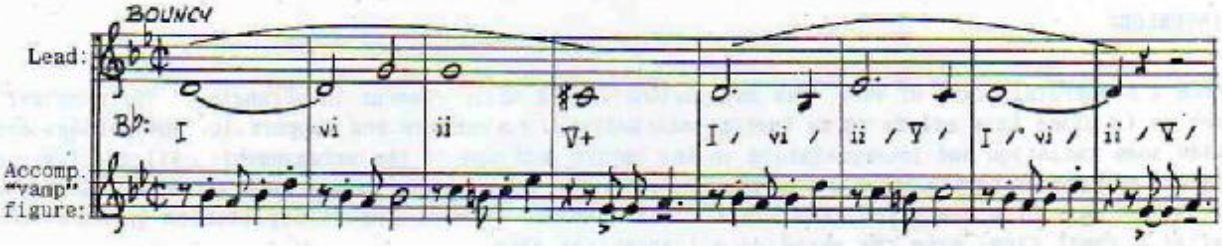
5. Arrange the following in a heavy and full manner for 4 trumpets, 4 trombones, 5 saxophones, and full rhythm section. Although this is of a somewhat different character, use Example 35 in the text as a general guide to the style. Use trombones on the lead of the accompaniment as well as to support the trumpets.



6. Framework of melody and accompaniment is given. Score as follows:

a. Lead as trombone solo, trombone unison, or trombone harmony (3). Use cup mutes.
b. Accompanying "vamp" figure in harmony for 3 trumpets, in cup mutes.
c. Use 3 or 4 clarinets on another "subelement" in the accompaniment. Probably some light, intermittent unison "fills" of a quiet nature could be used.
d. Also include piano, bass and drums.

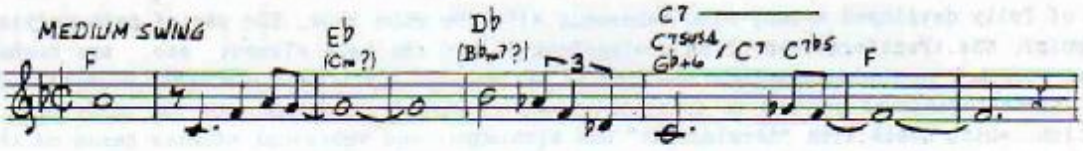
(Although of a somewhat different character, Example 36 in the text can be used as an example of the general style.)



7. Arrange the following line in a manner similar to Example 37 in the text, as:

a. 4 unison or octave saxes on lead
b. 4 trombones, aided by baritone, on ostinato type rhythmic figures
c. 4 trumpets on contrasting rhythmic figures - making some use of upper functions in the harmonization
d. Rhythm sketch

Score it so that some form of the "staggered entry" idea could be used.

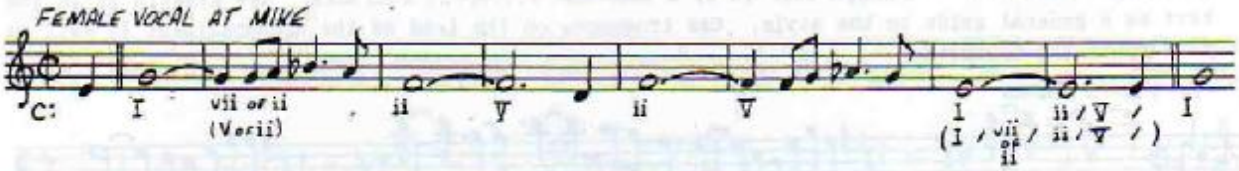


8. Assume the following to be a vocal. Provide an accompaniment containing four subelements, as:

a. Latin Rhythm (Rhumba or Beguine) in the rhythm section
b. Sustained style harmonic fills in the trombones (3) and baritone
c. Similar, perhaps imitative, harmonic fills in the trumpets (3)
d. Melodic fills in reeds, four available as follows:

Either: Unison or octave clarinets
Unison or octave clarinet or clarinets plus flute
1 flute
1 oboe
Mixture of any of above

Example 41 in the text can serve as a model, but this solution doesn't have to be similar.



9. Provide an accompaniment to a mediun tempo jazz trumpet chorus on the Blues progression. Use 3 trombones and 4 saxes, with one section playing melodic fills while the other is mainly harmonic. Example 42 in the text need not be imitated, but can serve as an illustration of the general technique. Include rhythm sketch.

10. Arrange 8 bars of any suitable "ballad" melody in a manner similar to Example 43 in the text. Pass element A from one section to another, with careful interlocking and no prominent "seams". Use any desired instrumentation of from 13 to 17 players.

INTERLUDE

From a commercial point of view, the main melody is the major element in arranging. The arranger's job is to place this melody in an appropriate setting, to enhance and support it, and perhaps provide some variation and interpretation in the latter sections of the arrangement. All too familiar is the society orchestra whose arrangements consist of three or four dreary repetitions of Element A, leavened only by a new pitch level in the last chorus. The blight of stylization is such that, after a short time, even the melodies all sound the same.

Less familiar (but almost as reprehensible) is the arrangement that studiously avoids the melody, as soon as, and as often as possible. Such a practice leads not only to a limited income, but is usually artistically unsound. Nearly always the result has no value as either an arrangement or a composition.

This is all by way of noting that the "melody with accompaniment" idea is the basis for most arranging. Even in those orchestras which aren't regarded as *commercial* in the accepted sense of the word, the greater part of the orchestration can be analyzed as Elements A and B, plus rhythm section.

The use of fully developed melody simultaneously with the main line, the use of part writing and counterpoint, the transformation of an accompaniment into the main element, etc., are techniques which may encroach on the main melody, causing it to lose its place as the primary element. Consequently, these techniques are not as frequently used in normal arranging. On the other hand, full composition, which deals with "development" and with aural and emotional results based on the *sum total of a number of contributing elements*, is not obliged to retain the monarchy of a single melodic thread. If a composer desires to bring a previously heard accompaniment to the foreground, if he desires to deal with two, three, or four theoretically equal ideas, or if he desires to forego a melody entirely, he may do so. In fact, as long as he performs these things artistically, they are expected of him. Furthermore, the style and texture of the background material may be as much a part of the composer's thought as the primary melody itself.

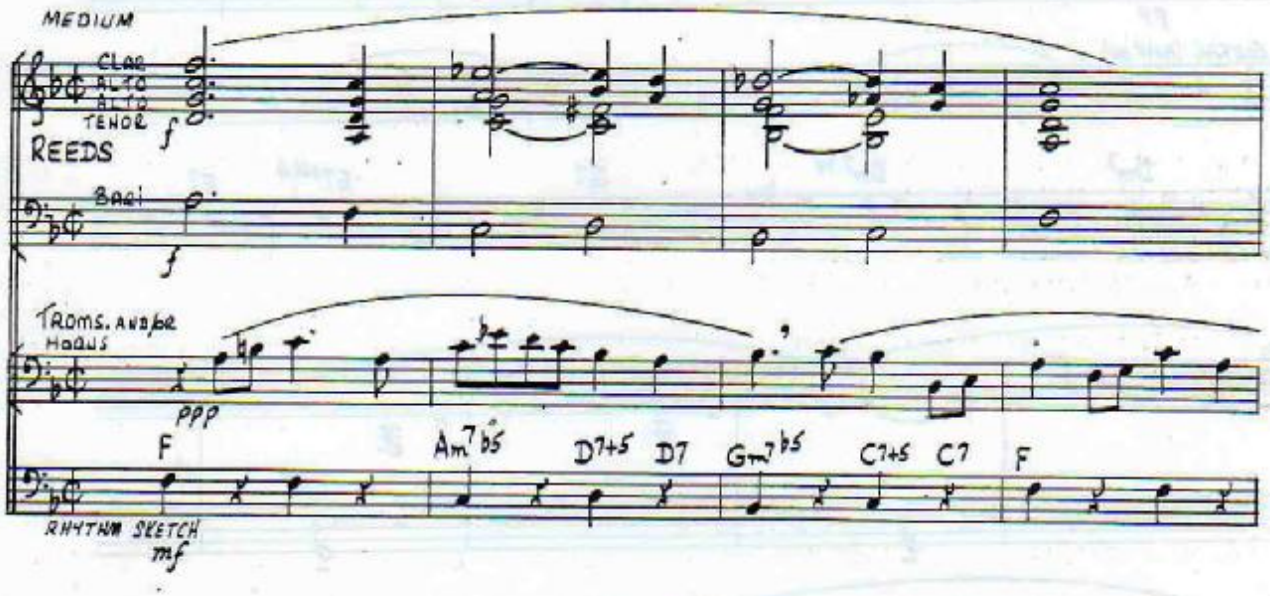
Nevertheless, while arranging may not require a fully compositional technique, the arranger who brings a more "compositional" attitude and approach to his work will likely produce a more imaginatively arranged orchestration.

Chapter 17

COUNTERMELODY

In Example 33 in the section headed "Accompanied Melody", the accompaniment consisted of a line which approached the stature of a countermelody. The following example shows a development of this line to the point where its continuity is such that it can be regarded as a countermelody:

Example 45:

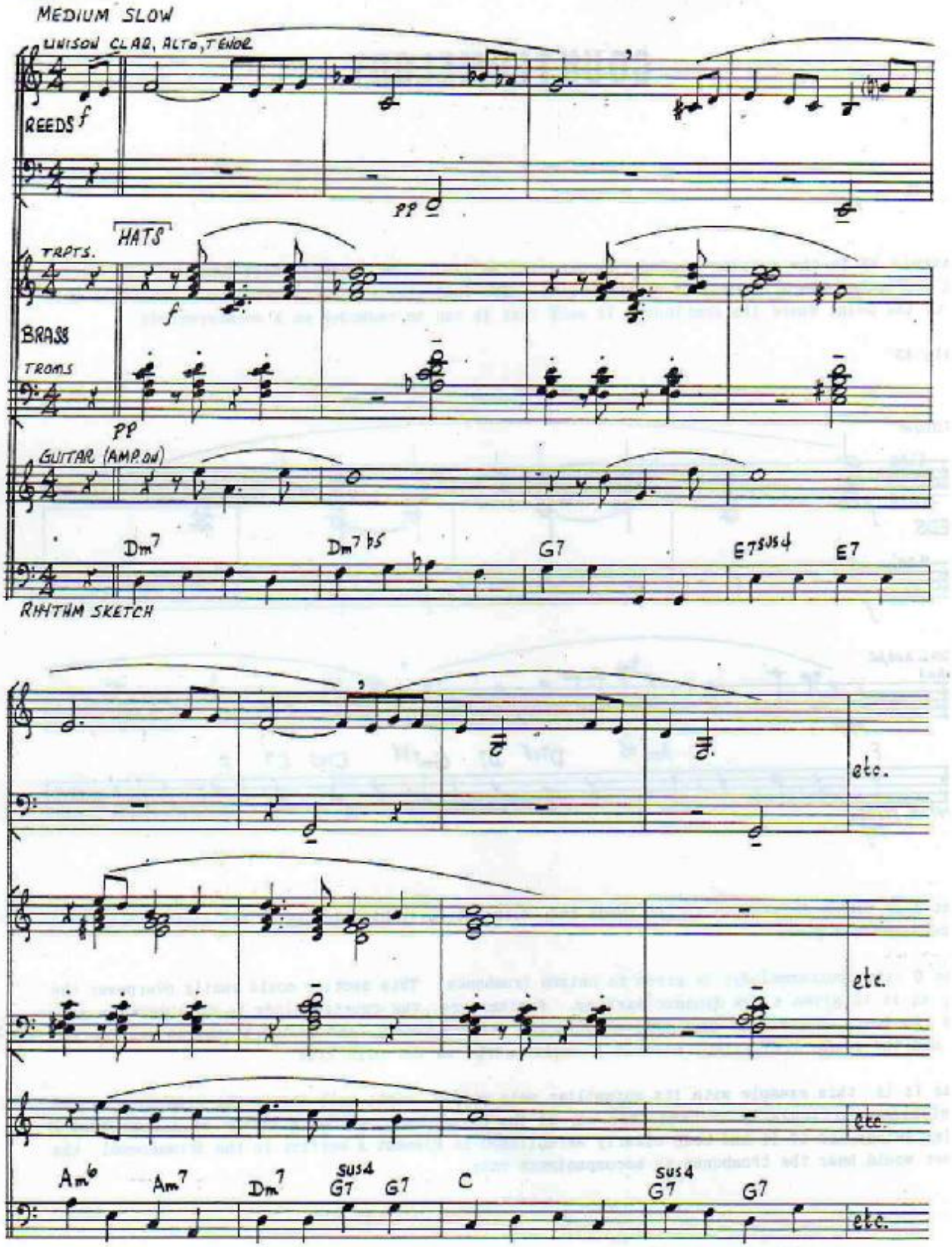


Element A is richly harmonized in the reeds and, with the favorable placing of the instruments, will have considerable power.

Element B (the countermelody) is given to unison trombones. This section could easily overpower the reeds, so it is given a low dynamic marking. Furthermore, the countermelody is considerably more active (in fact, dangerously more active) than the primary melody, and if the trombones were marked forte and the reeds pianissimo, Element B would emerge as the main line.

Even as it is, this example with its unfamiliar main melody, might well convey the trombones as the main element, particularly if used this way at the beginning. Although if the main line were a familiar melody, or if it had been clearly established as Element A earlier in the arrangement, the listener would hear the trombones as accompaniment only.

Example 46:



(See comments following page.)

In Example 46, three elements are in evidence:

Element A (Melody) with trumpets and guitar.

Element B (Countermelody) with unison reeds.

Element C (Accompaniment) with trombones and baritone.

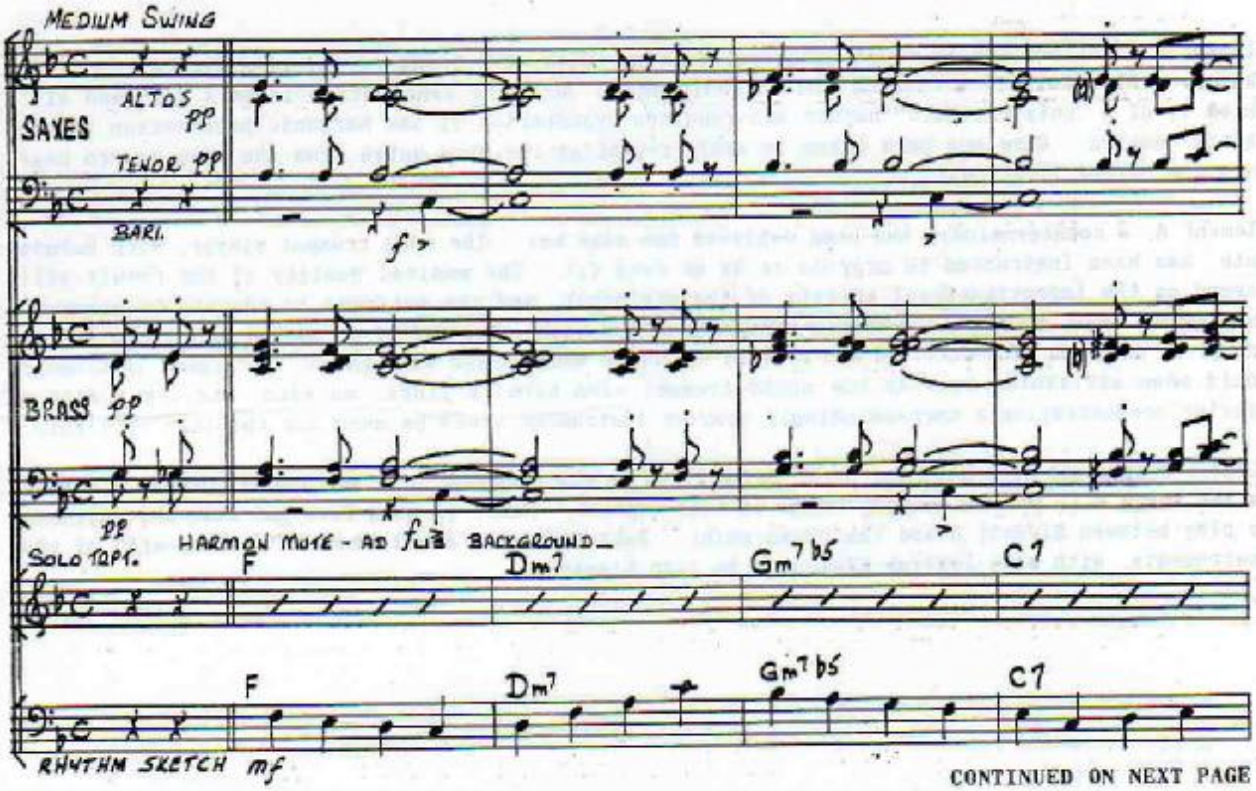
Care has been taken to keep a rhythmic differentiation between the three elements. Without such rhythmic differentiation, the clarity of the orchestration could easily be lost with a texture as rich as this is.

Element A is harmonized. Open trumpets might be too bright here, and cup or harmon mutes too soft, so hats were chosen as a compromise. The guitar will sound an octave below the lead trumpet and, while it is not essential to the orchestration here, it will add a touch of color and strengthen the melody.

Element B, the countermelody, could be performed with straight unison saxes, but the use of a mixed reed grouping offers a more delicate color. While it isn't obligatory that a countermelody have *full* melodic stature, this one could stand by itself. It agrees, of course, with the harmonic progression, and even though it is situated in the same area as the trumpet harmony, it has sufficient detachment because of its rhythmic contrast, and because it is in unison. Note, also, the relationship between the eighth notes in bar five of the main melody, and the general melodic character of the countermelody.

Element C is a syncopated rhythmic figure in the trombones, with no particular melodic value. It is marked with a low dynamic and is intended merely to provide an interesting pulse. The baritone joins the trombones in the longer chords.

Example 47:



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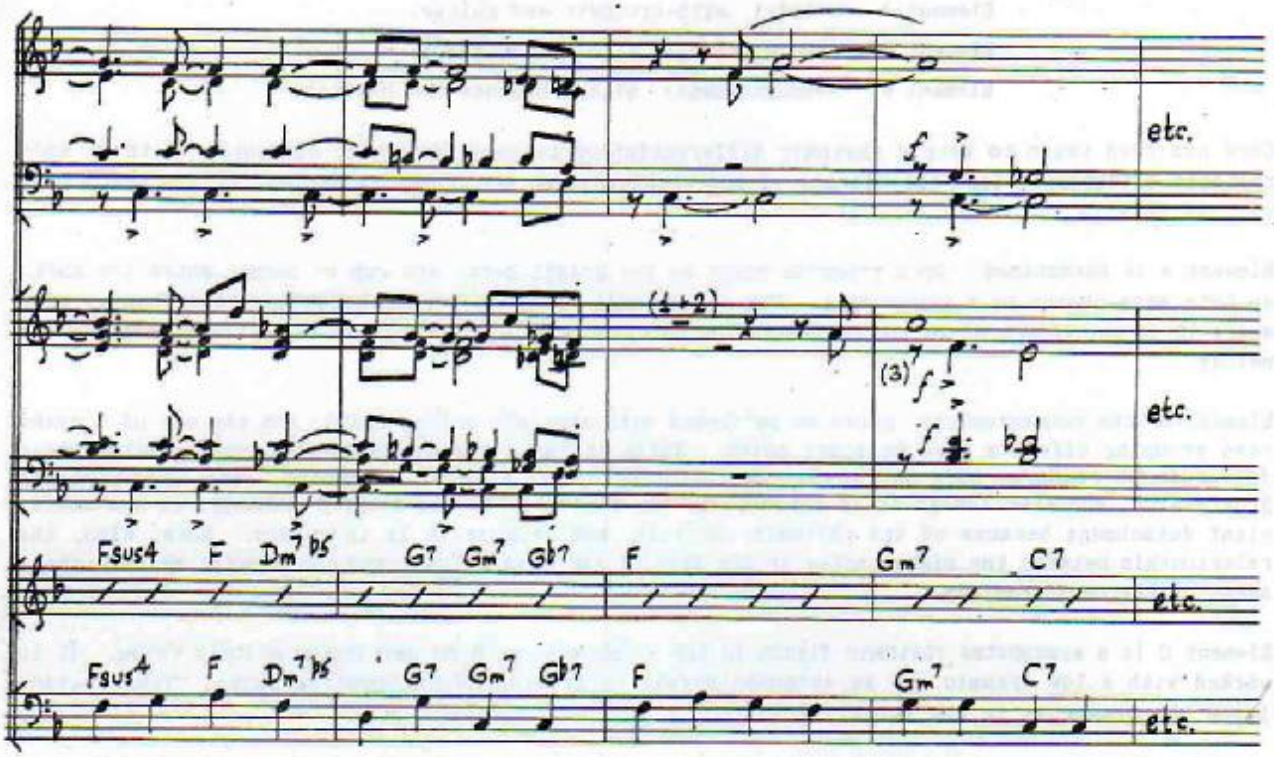
Example 47 (cont'd):



Element A is harmonized in close sectional voicing, with five brass re-inforced with three saxophones. The result is a compact and rhythmic unit. Note the syncopation in bars five and six, which is of a "poly-rhythmic" nature and requires syncopation of the harmonic progression in the rhythm section. Care has been taken to avoid repeating the bass notes from the weak fourth beat into the strong first beat.

Element B, a countermelody, has been achieved the easy way. The solo trumpet player, with harmon mute, has been instructed to provide it as he sees fit. The musical quality of the result will depend on the improvisational ability of the performer, and the arranger is advised to get some information about this ability before assigning such a task. The use of an ad lib background melody in not an uncommon procedure and can be very effective when played with taste. A "light" instrument would seem advisable, such as the muted trumpet used here, a flute, an alto, etc., but with a heavier orchestration a correspondingly heavier instrument could be used for the jazz obbligato.

Element C consists of a dominant organ point given to one trombone and baritone saxophone, a combination which will provide enough weight in this context. Note, in bars five and six, the rhythmic by play between Element A and the organ point. Bars seven and eight show a "peeling-off" of the instruments, with some leaving Element A to join Element C.

Example 48:

EASY SWING

UNISON ALTOS & TENORS

SAXES p SMOOTH - NO VIB.

BARI.

BRASS p

PNO. p LIGHTLY AS WRITTEN

GUITAR LIGHTLY

BASS LIGHTLY

DRUMS

Here Element A is a clipped and syncopated brass treatment of a melody which, in its original form, is sustained and passive:

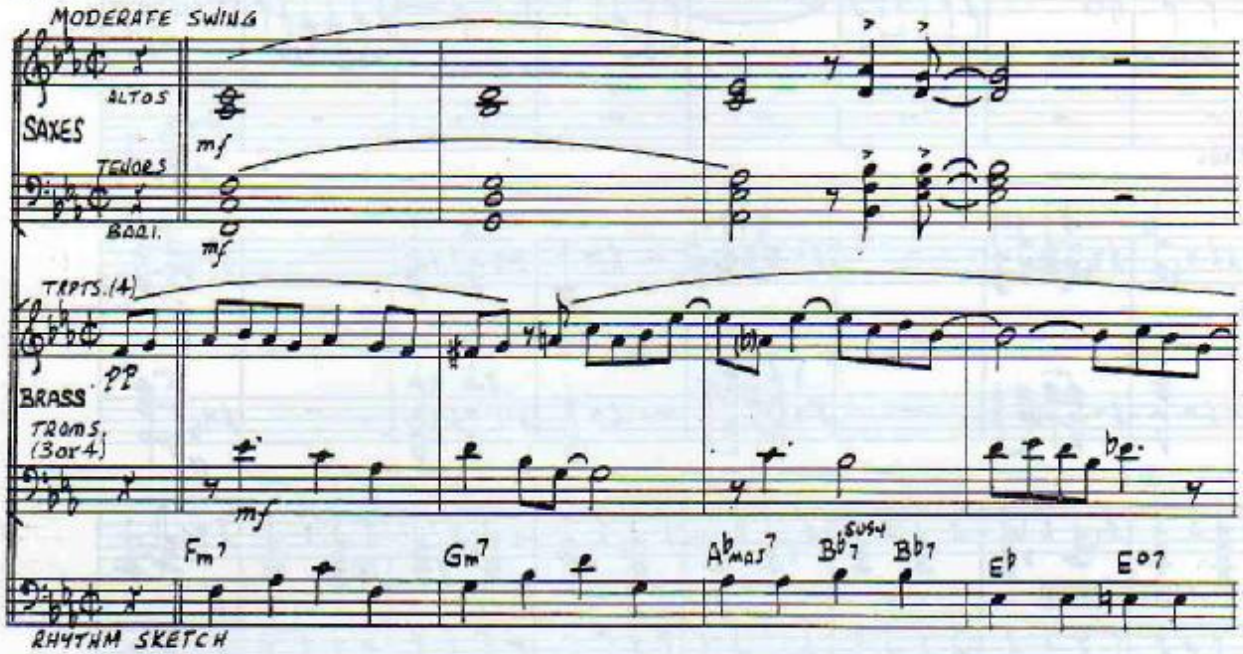
Example 49:

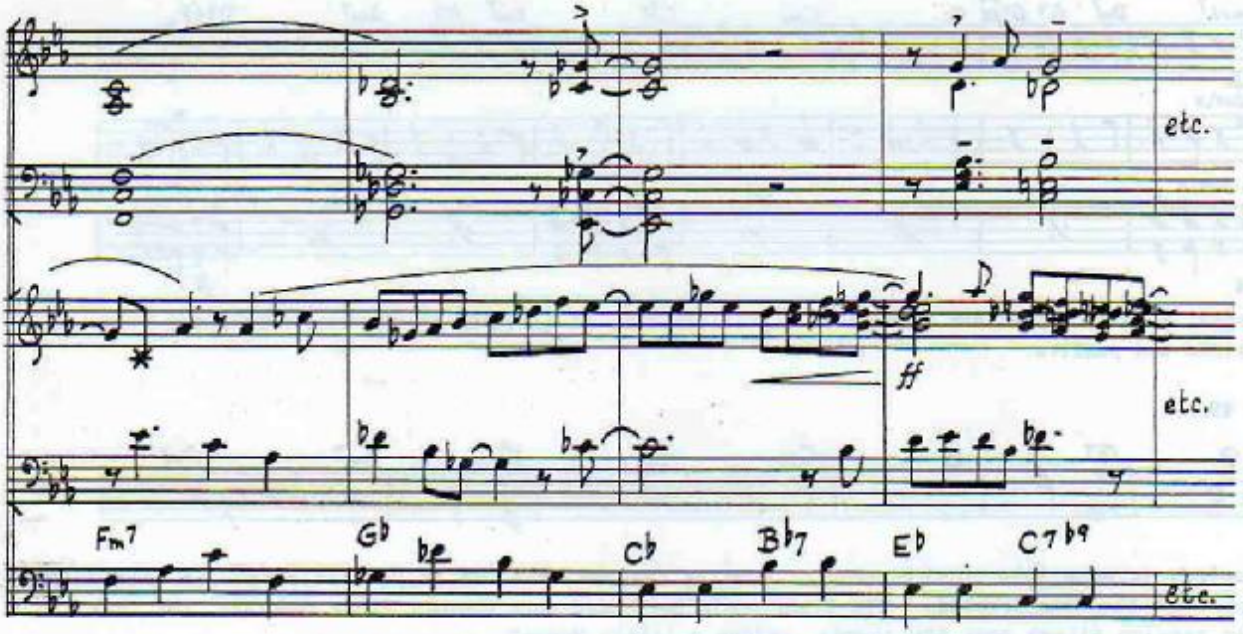
Such a melody is adaptable to this kind of scoring because, when it is "abbreviated", it leaves ample space for the countermelody. The brass could have used more compact close voicings, but this more open version allows some 9th chords, adding a little "edge".

Element B is an obbligato which is in sharp contrast to Element A, with an entirely different rhythmic character. The use of the quarter note triplets ("staggered triplets") provides a particularly effective contrast. Actual unison, rather than octaves, was chosen to gain the smoothest result, and the baritone was omitted since the line is out of the baritone's range.

The rhythm section performs a basic "two in the bar". The piano part is written out and the performer is instructed to play it as written. This is not the way a modern pianist would normally use his right hand, but it is used here to complement the rather nostalgic "ballroom dance" character of the passage.

Example 50:





This is another treatment of the theme used in Example 28. Element A, as before, is given to unison trombones, but is now accompanied with:

Element B - countermelody in the trumpets.

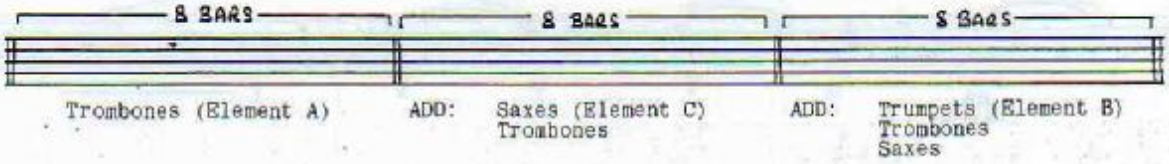
Element C - harmonic accompaniment in the saxophones.

Element B, the soft unison trumpets, is to be performed with a relaxed swing, quietly and restrained. It is a rather "busy" line, but it doesn't become monotonous because it has sufficient rhythmic variety and avoids repeated high or low points. It leads well to a climax in the last bar where, for further emphasis, the trumpets "peel off" into harmony. On the debit side, it suffers from too many consecutive eighth notes in bars six and seven. (The "x" instead of a note in bar five indicates that it should be *suggested* rather than actually played.)

The line has a good harmonic relationship to the trombone melody, it agrees with the harmonic progression, and provides rhythmic contrast.

Element C, in the saxophones, has no individual importance but serves to bind the two main elements together, and to provide a solid foundation. The harmony in this element is kept quite simple, in fact, most of the chords are only triads. This was done to avoid too much density which, particularly in this low register, would have detracted from and impeded the upper melodies. (In this it differs from the earlier orchestration of the same theme.- Example 28 - where, since there was less activity, the saxes could be voiced a little higher, with more density.) The overall effect of this passage is *contrapuntal* and it could, in a limited sense, be termed *counterpoint*.

Similar to Example 37, this passage could be presented with *staggered entries*, perhaps as follows:



ASSIGNMENT 15

1. Harmonize the following line for: Clarinet, Alto, Alto, Tenor, Baritone in an open, rich and clear style.

Thread a quiet *countermelody* through it with three or four unison trombones and/or French horns. Although the countermelody should not be "busy", it must be a coherent sentence with full melodic stature. Mark the countermelody *pianissimo* and the reeds *forte*. Example 45 in the text can serve as a model. Include rhythm sketch.

2. Harmonize the following line "sectionally" for four muted trumpets. Use three elements in the full score (plus rhythm sketch) as follows:

Element A - (Melody in trumpets)

Element B - Countermelody

Element C - Accompaniment - perhaps in ostinato rhythmic style.

Four trombones and five reeds of your own choice are available to provide Elements B and C, although all do not have to be used.

Example 46 in the text, although of a somewhat different character, can serve as a general model. But Element A here doesn't contain any eighth notes, so the countermelody should not be as active as the one in Example 46. Nevertheless, write it so that it is a coherent and self-sufficient musical sentence.

Above all, retain clarity and keep an eye and ear on the relationships between the "surface" of each element.

3. Take any standard melody that is composed mainly of whole and half notes and re-write eight bars or so of it in a clipped, syncopated, and abbreviated fashion. Harmonize for five or six brass.

Run contrasting smooth countermelody through it on unison altos and tenors, or mixed woodwinds (4). Use "two in the bar" bass, medium swing tempo.

Example 48 in the text can serve as an illustration of the general idea.

4. Arrange the following line, or one of your own in a similar vein, in the style of Example 50 in the text, i.e.:

Lead line (Element A) in 3 or 4 unison trombones

Countermelody (Element B) in 3 or 4 unison trumpets

Harmonic accompaniment (Element C) in 4 or 5 saxes (including baritone)

Include full rhythm section.

Clarity! Correlate all of the elements and the bass part.

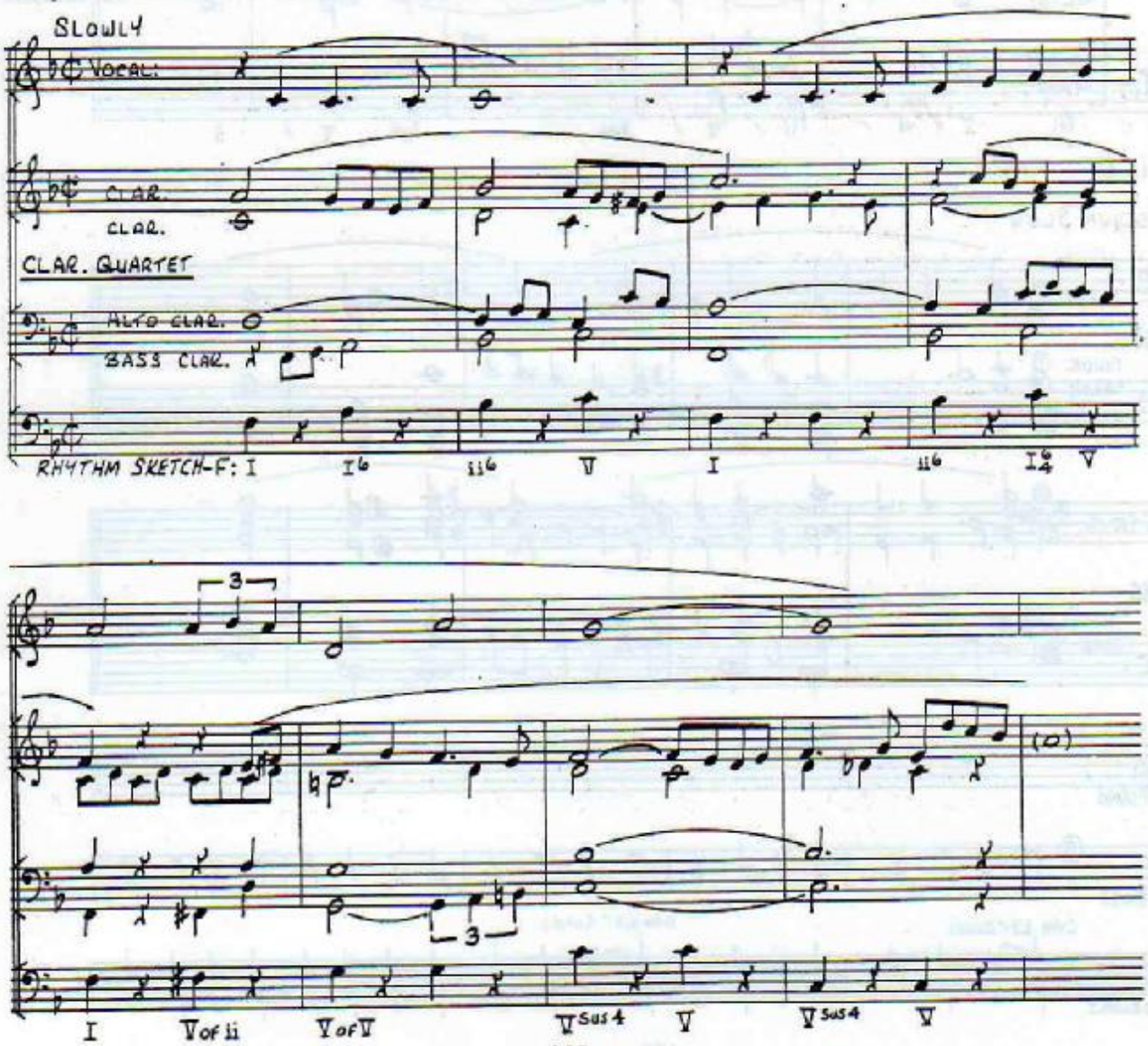
Chapter 18

PART WRITING TEXTURE

A true part writing texture has not enjoyed as extensive a use in commercial arranging as it perhaps should have, since there are many areas in which it will produce worthwhile results.

Part writing doesn't lend itself well to jazz syncopation, nor to strong rhythmic definition. The normal stage and dance band instrumentation, predicated as it is on the "section" idea, is not ideal for this type of texture. Further, part writing is not "melody with accompaniment" nor is it a straight vertical harmonization of the melody; rather, the melody is just one of several individual voices. These reasons, plus the fact that popular melodies are often unsuited to a part writing treatment, may account for its infrequent use in this idiom. The fact that part writing requires more arranging and performing skill may be another reason.

Example 51:



In the preceding example, Element A is the vocal line and Element B is provided by a woodwind quartet. The scoring is in a traditional part writing style, with a few rests here and there for more definition and more ease of performance.

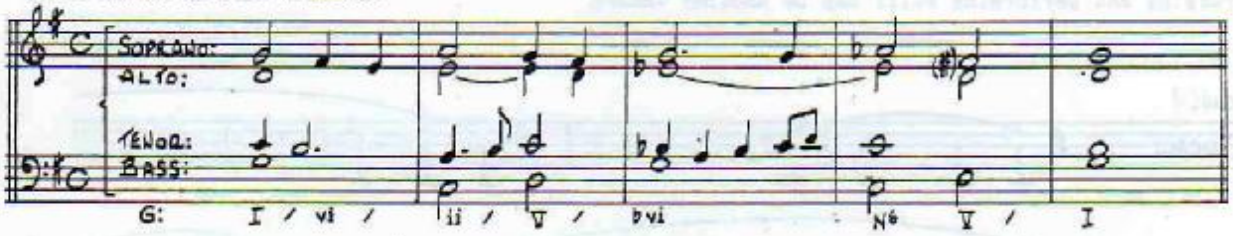
The string bass duplicates the bass clarinet, except that it is written with the aim of providing the normal rhythmic pulse. The piano and guitar are to be omitted, although they could be used in a simple "um-cha" rhythm.

This background of part writing would be effective with strings or, in fact, with any group of instruments which have reasonable equality of "weight".

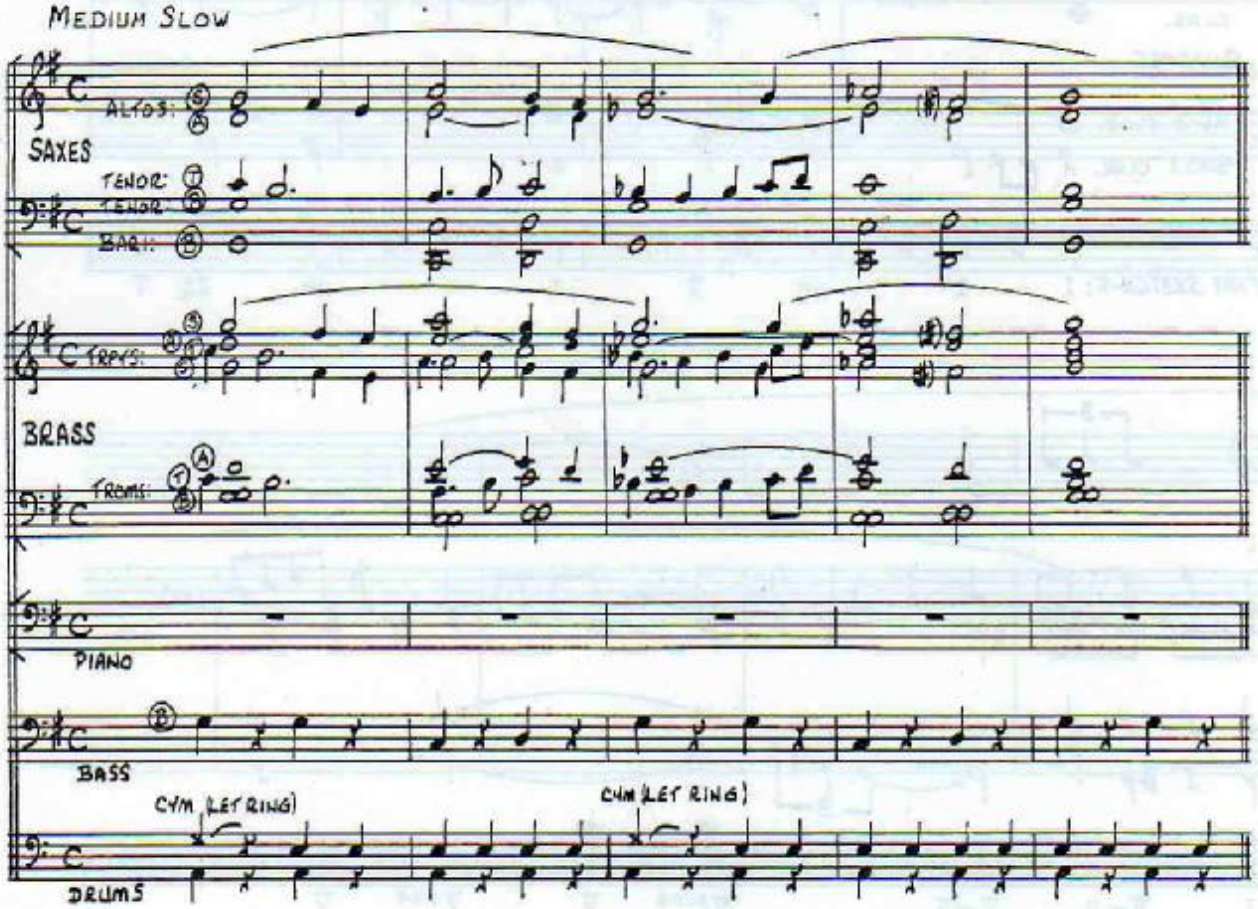
Element A itself may be based on a four voice part writing score. To illustrate:

Example 52:

BASIC MODEL: (4 part writing)



Example 53:

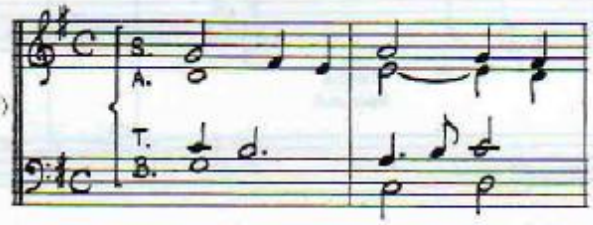


The basic model illustrated in Example 52 contains the fundamental parts, identified by **Soprano, Alto, Tenor and Bass (S.A.T.B.)**. These fundamental parts are known as the "real" parts, as opposed to those parts which are simply doublings, or octave duplications.

Illustrations of the ways in which the four "real" parts may be "blown up" for larger groups are pertinent here. The first two bars of the "model" will be used for example purposes:

Example 54:

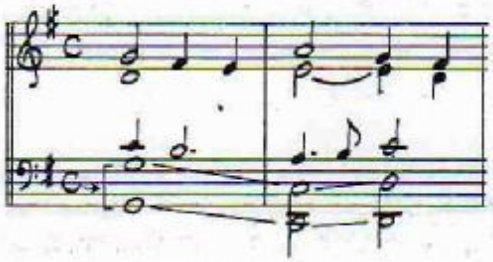
MODEL
(First 2 bars of Ex. 52)



Here are some of the ways in which the basic four part passage can be enlarged:

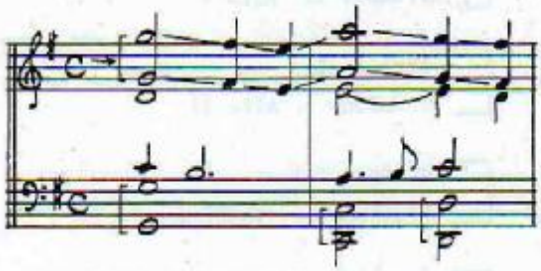
1. The bass may be doubled in octaves, 8va lower:

Example 55:



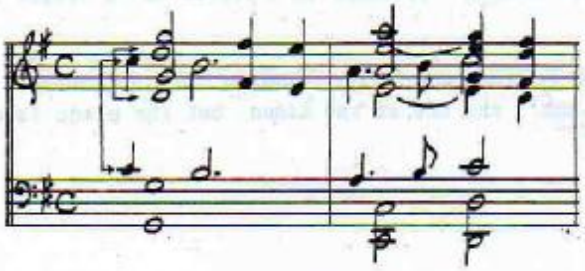
2. The soprano (melody) may be doubled in octaves 8va higher:

Example 56:



3. The alto and tenor may be doubled in octaves, 8va higher. Hollow open 5ths, etc., will sometimes result if *just the alto* or *just the tenor* is doubled an octave up, therefore it is usually wiser to take both, or neither, into the upper octave:

Example 57:



4. It is not customary to add anything but an octave duplication below the original bass. Consequently, the bass part is usually heard singly or in open octaves.

5. In some four voice frameworks, it is possible to double the melody (soprano) an octave lower, as:

Example 58: Example 59:

but a glance at the basic model being used in these illustrations will show that it is voiced too closely to allow an effective doubling of the soprano in a lower octave.

6. Further, it would be occasionally possible, when more than one instrument is on any part, to add an extra chordal tone here and there, for instance on a final chord, to fill out the harmony.

NOTE:

A few words about the orchestration in Example 53. The overall sound will be majestic and, because of the dominating high trumpets, powerful. The instruments are disposed as follows:

Soprano	8	Trumpet I. Trumpet IV, Alto I
Alto	8	Trumpet II Trombone I, Alto II
Tenor	8	Trumpet III Trombone II, Tenor I
Bass	8	Trombones III and IV, Tenor II Baritone, and Bass in standard rhythmic fashion

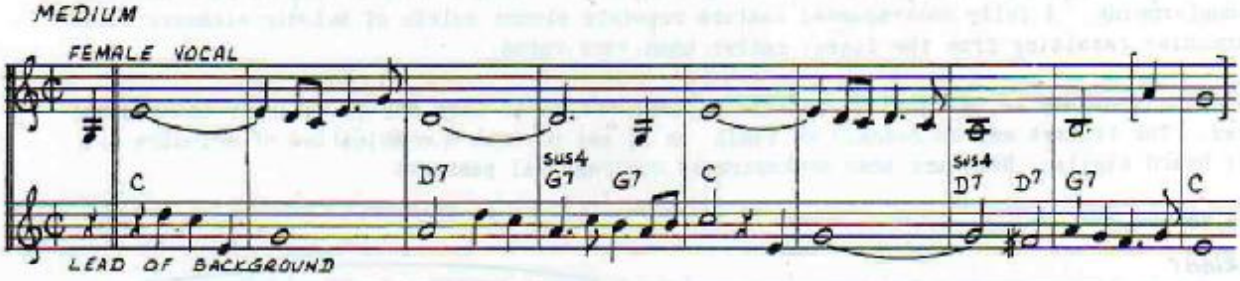
This seems an equable division of weight. If there is a little extra weight from the bass line, no harm is done.

The low C's in the baritone part require the larger model of the instrument. If a guitar is available it could re-inforce, with amp., any one of the lines, but the piano is omitted since it would be of no value in this passage.

ASSIGNMENT 16

1. **Given:** Vocal line and suggested top line to background.
   Harmonize the background in "four part writing" for four instruments of your own choice. Also include string bass, in standard *rhythmic* fashion, and drums.

   For model, see Example 51 in text.



2. **Given:** Passage of four part writing. Score it as follows:

   a. For 3 trumpets, 2 French horns, 3 trombones, tuba

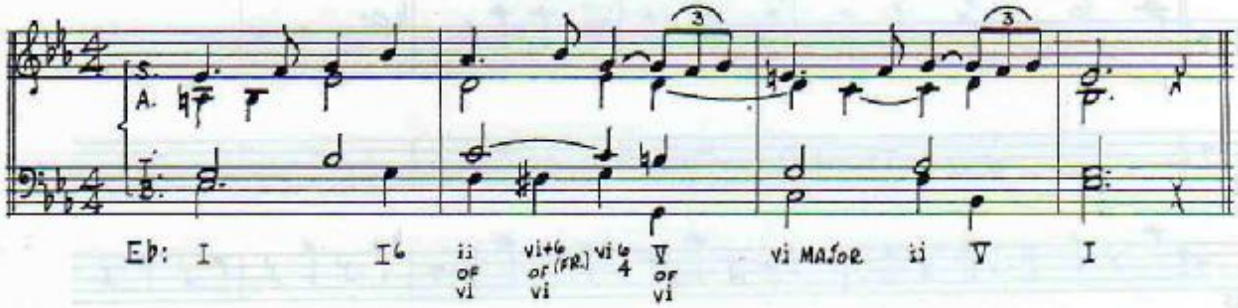
   b. For Flugelhorn, French horn, trombone, alto and baritone saxophones

   c. For flute, oboe, clarinet, English horn, bassoon, string bass (arco.)

   d. Two examples for 3 trumpets, 3 trombones, 4 saxes (2,1,1), guitar, bass and drums.

   e. Two examples for 4 trumpets, 4 trombones, 5 saxes, guitar, bass, drums, and orchestra bells.

   For models, see Examples 52 to 59 in text.



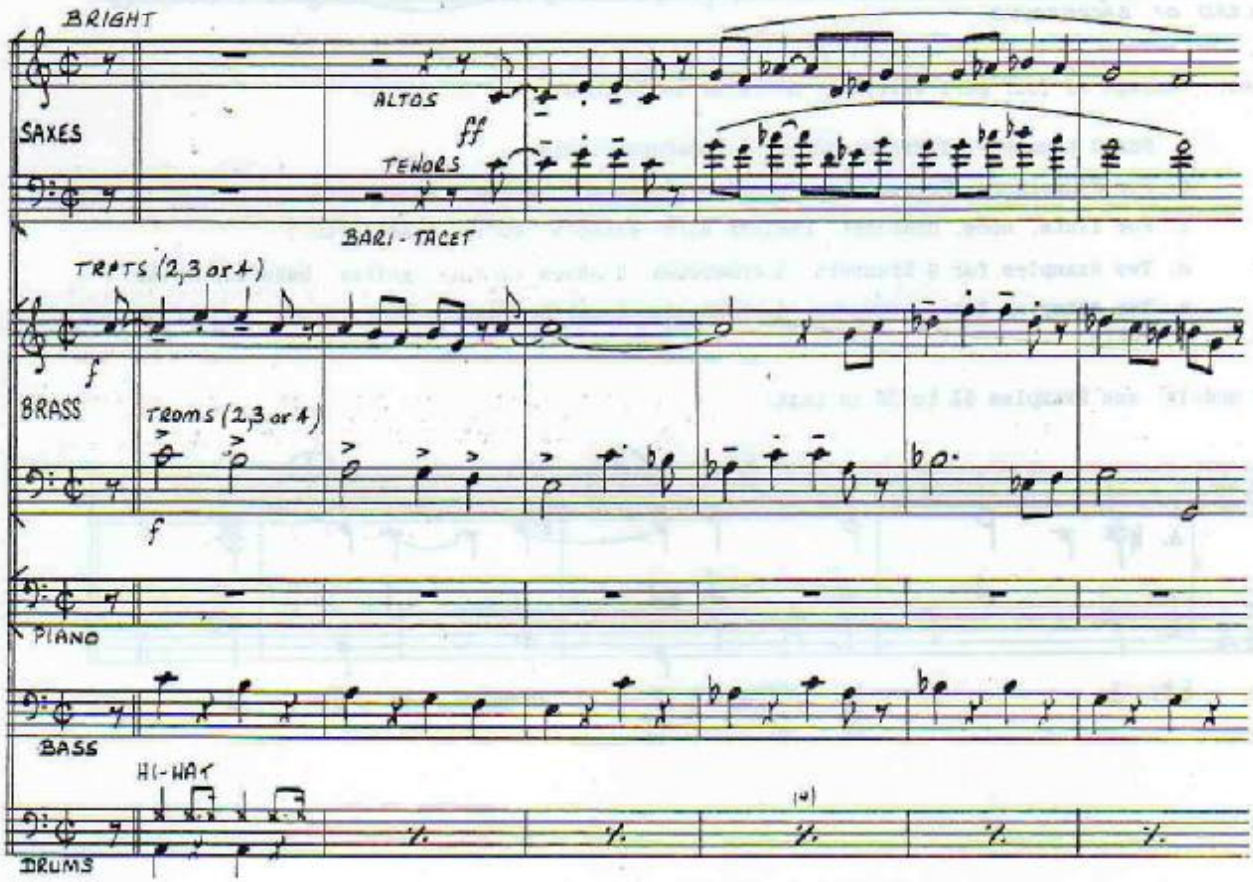
Chapter 19

CONTRAPUNTAL ORCHESTRATION

In commercial scoring, a true contrapuntal texture is rare. Counterpoint is never entirely missing from any form of orchestration, of course, and in the countermelody technique, its presence is obvious. In fact, in a style such as is illustrated in Example 50, the dominant sound is the contrapuntal interplay between the trombone and trumpet melodies. Such orchestration is not, however, true counterpoint. A fully contrapuntal texture consists almost solely of melodic elements, with the harmonies resulting from the lines, rather than vice versa.

The melodic lines may be designed in imitative counterpoint or they may be entirely independent melodies. The texture may be canonic or fugal, or it may present a combination of melodies previously heard singly. Here are some orchestrated contrapuntal passages:

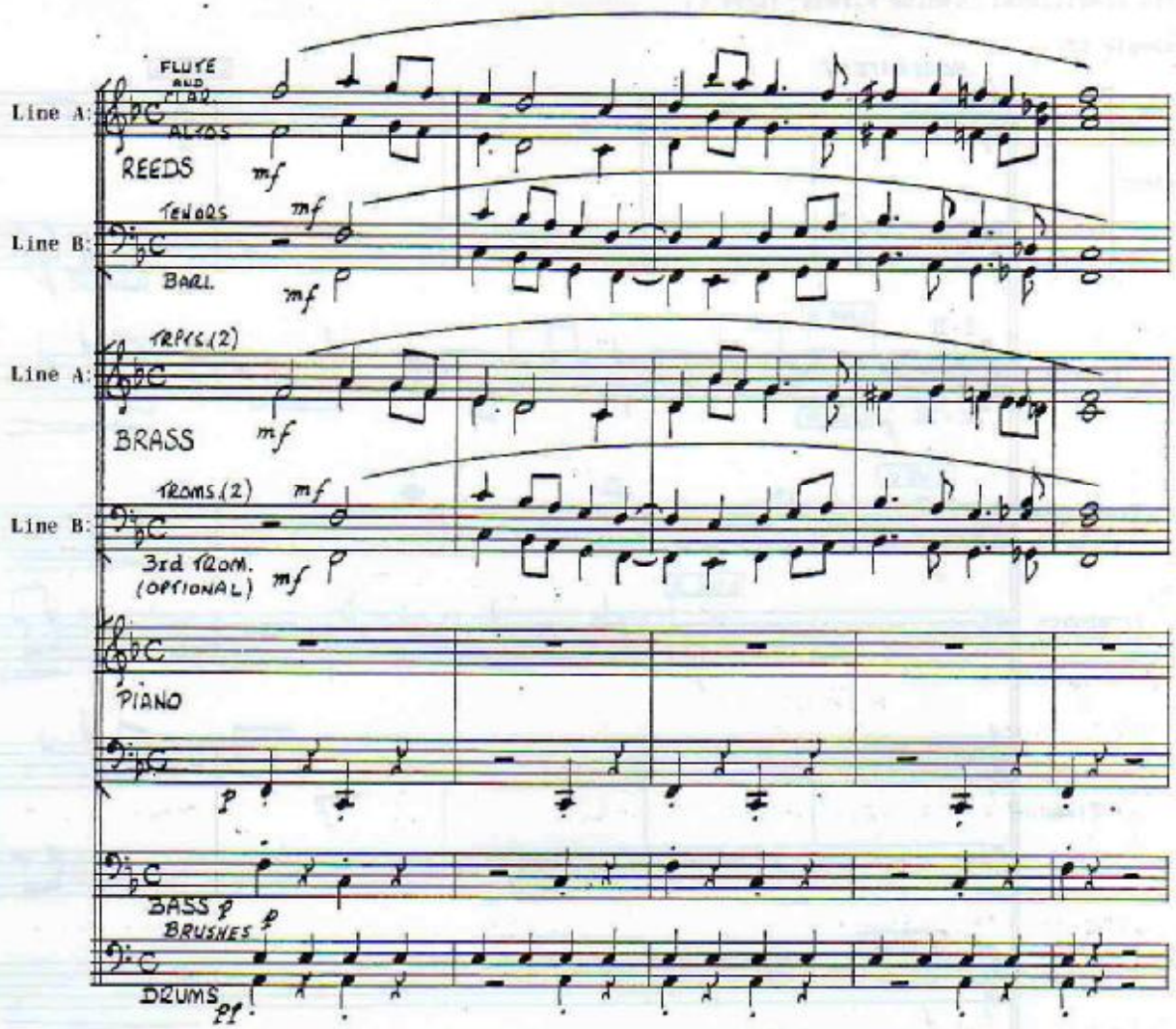
Example 60:



This example of simple three part counterpoint has canonic entries. The distribution of parts is the simplest possible with this instrumentation: unison trumpets, unison trombones, and unison saxophones. The saxophones are marked one dynamic higher than the brass. The bass plays a basic rhythm *based on the lowest contrapuntal line*, and the drums provide a rhythmic pulse.

The baritone saxophone is omitted because the line played by the saxophones takes it out of range, and there would be no particular point in adding it to the trombone line, which has enough weight already.

Example 61:



In this example, the two part "linear" counterpoint is distributed as follows:

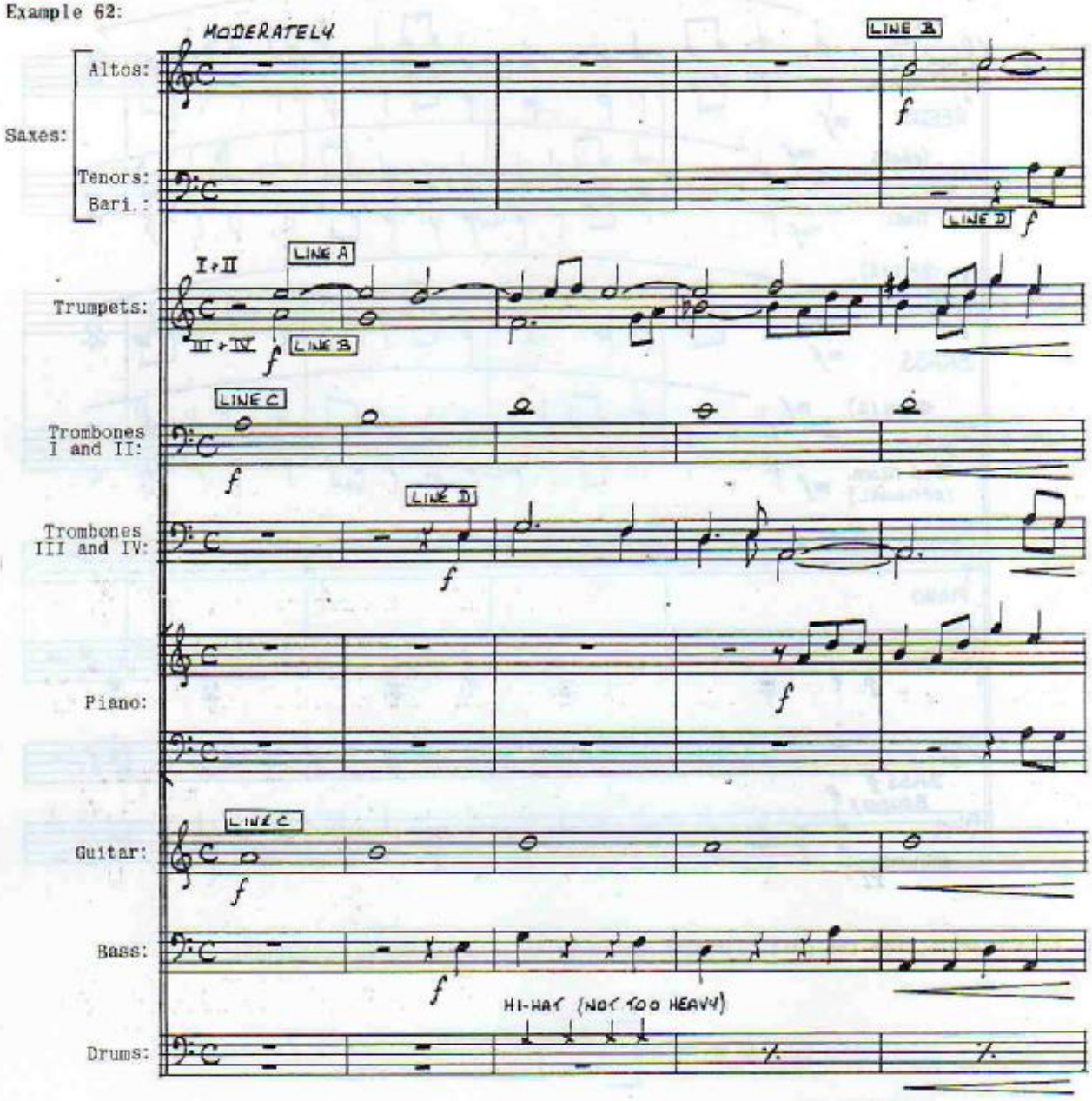
Line A: 8
- Flute, Clarinet
- Two trumpets, two altos

Line B: 8
- Two trombones, two tenors
- Trombone(optional) and baritone

The heavy weight on Line B, and its low range, will give it a somewhat ponderous quality. This is intended. Note that the cadence moved into full harmony. The bass and the piano left hand play a light organ point of the "alternating pastoral" type (see "Modern Harmonic Technique"). The bass drum fortifies this, and the snare provides a light pulse.

The following example is an orchestration of a four part "linear" counterpoint passage, complete with traditional "Cantus Firmus" (Line C).

Example 62:



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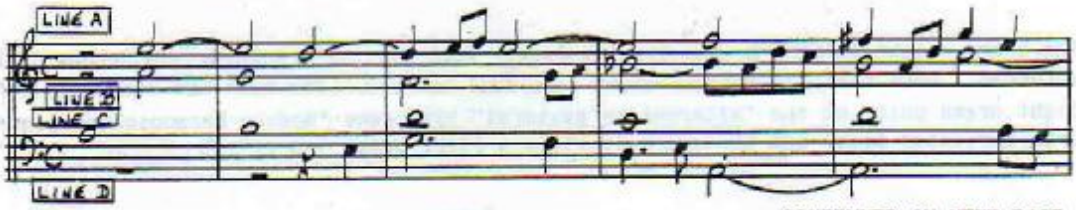
Here is the basic passage:

Example 63:



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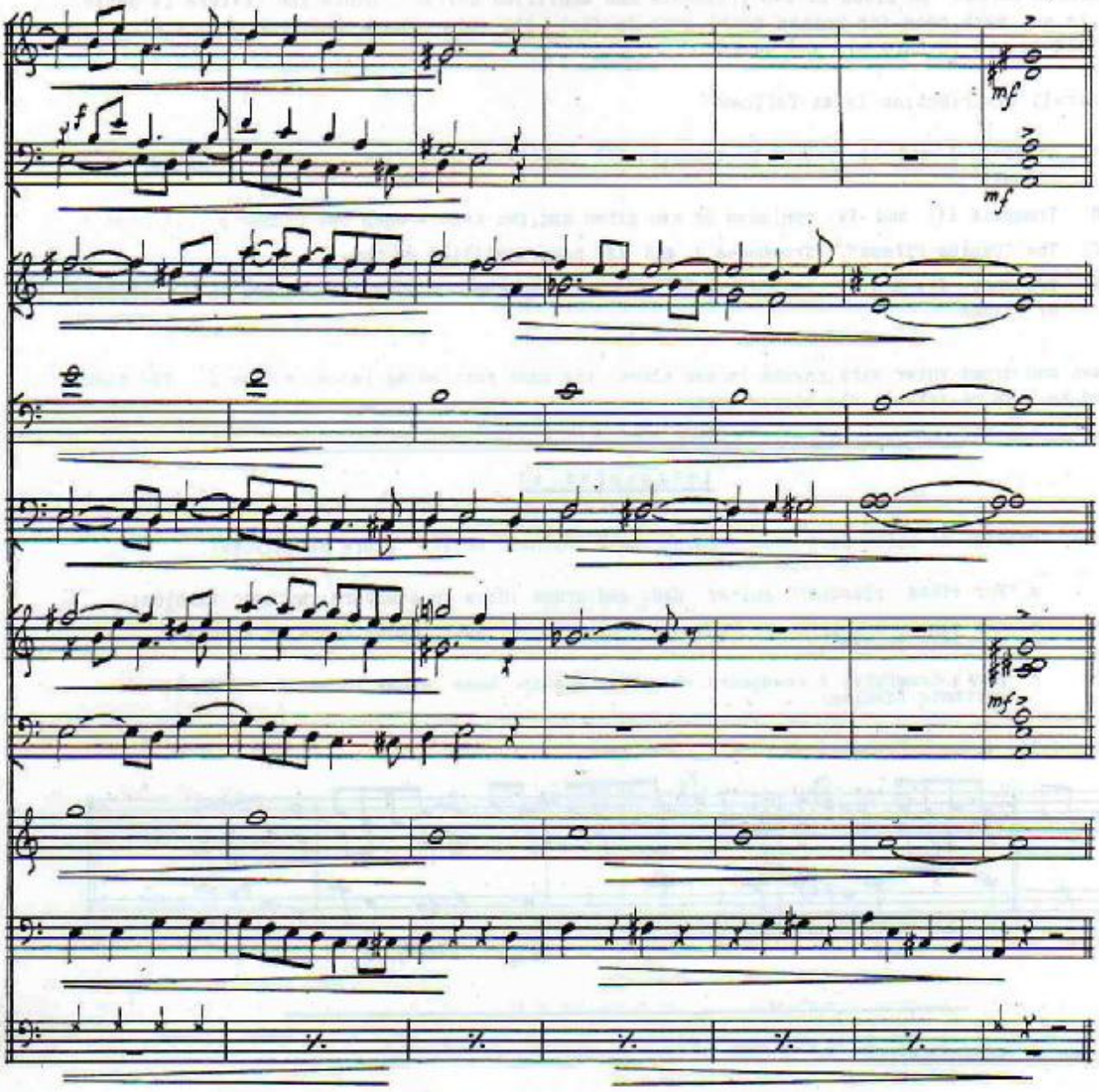
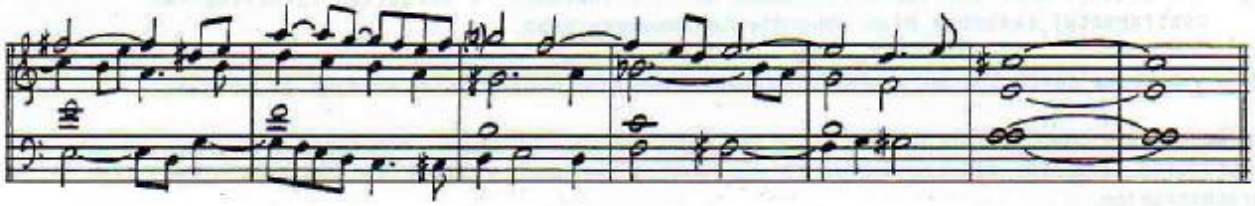
Example 62 (cont'd):



Here is the basic passage (cont'd):

Example 63 (cont'd):



The "Cantus Firmus" is given to two trombones and amplified guitar. Since the texture is dense, there is not much room for octave doublings; in fact, the only octave doubling occurs with the altos and tenors in bars six and seven.

The overall distribution is as follows:

Line A: Trumpets I and II, joined by trumpets III and IV in bars five to eight for purposes of climax.

Line B: Trumpets III and IV, replaced by two altos and two tenors when the trumpets join Line A.

Line C: The "Cantus Firmus". Trombones I and II, plus amplified guitar.

Line D: Trombones III and IV, joined by the baritone saxophone in bars five to eight, for purposes of climax.

The bass and drums enter with rhythm in bar three, the bass part being *based on Line D*. The piano is used to help re-inforce the climax area.

ASSIGNMENT 17

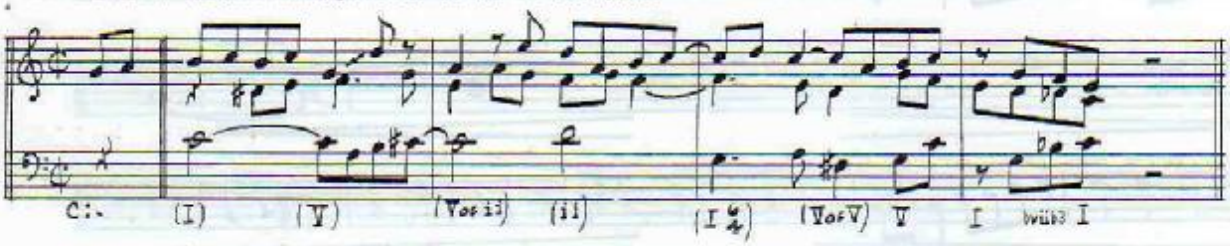
1. **Given:** Passage of three part counterpoint, in a rhythmic style. Score as follows:

   a. For vibes, clarinet, guitar, bass and drums (bass in standard rhythmic fashion).

   b. For flute, 3 clarinets, bass clarinet, guitar, bass, drums (bass in standard rhythmic fashion).

   c. For 4 trumpets, 4 trombones, 5 saxes, guitar, bass, drums (bass in standard rhythmic fashion).

For models, inspect Examples 60 to 63 in the text.



MORE COMPLEX ORCHESTRATION

Textures of such complexity that they will not fall, on analysis, into a main idea with subordinate accompaniment or accompaniments are rare in commercial scores. They can be devised, however, and are likely to be in one or the other of the following categories:

A. A combination of the types discussed as, for instance, a situation involving two contrapuntal textures plus subordinate accompaniment.

B. A texture involving an ensemble of many elements, none of which emerges as primary.

Some advanced jazz compositions occasionally use textures such as these, sometimes utilizing one or more improvised elements, and the scores of some modern symphonic composers often show highly complex orchestration.

Chapter 20

THE SMALL BAND

In the modern idiom, small groups fall into two categories:

A. Those which are "abridged" versions of large bands. These groups use essentially the same combination as large bands, but with smaller sections. Instrumentations such as the following fall into this category:

2 trumpets	1 trumpet	1 trumpet	1 trumpet	1 trumpet
1 trombone	1 trombone	3 trombones	4 saxophones	3 saxophones
3 or 4 saxophones	3 or 4 saxophones	4 saxophones	3 or 4 rhythm	Accordion
3 rhythm	3 rhythm	3 rhythm		3 rhythm

B. Those which use a mixed instrumentation, seldom containing more than one of any particular instrument. Instrumentations such as the following fall into this category:

Trumpet	* Trumpet	Clarinet	Saxophone
Alto	Alto	Trumpet	Vibraphone
Tenor	Tenor	Tenor	Guitar
Trombone	3 rhythm	3 rhythm	Bass
Baritone			Drums
3 or 4 rhythm			

(Groups such as these often contain players who "double".)

*Kendor-Kombo Series

A small band score differs from a large one only in detail, not in analysis. The score will still be devised from melody, harmony, accompaniments, countermelodies, etc.

The heavy effects and the rich textures which are available in large orchestras are clearly not available with small groups, and an arrangement which tries to make a small group sound like a large one is not likely to succeed. There ARE "better" and "worse" voicings for three brass, for instance, but there is not a voicing which will make them sound like eight, or even five. The orchestrator must adjust his thinking to the available resources and, as always, be aware of the actual sounds with which he is dealing. *He must be prepared to reject ideas which are not suited to a smaller group.* For instance, the type of scoring represented by Example 37 could not be realized without three full sections. On the other hand, any combination will undoubtedly contain colors and orchestration possibilities which offer many resources. The more abbreviated the combination, the more the arranger is challenged to exploit the subtleties of the resources, to make up for the lack of weight and volume.

The following points are pertinent:

1. The saxophones can perform a "dual" function. They may add harmonic thickening to Element A, and also provide Element B. For illustration of this point, in Example 64 which is scored for large band, Element A is quite satisfactorily "thickened" with the use of the brass section only. The saxes merely lie in wait for the figures which constitute Element B.

Example 64:(Large Band)

SAXES

4 TRPTS.

BRASS

3 TROMS.

G G° Am7 D7 G A9 D7+5 G

RHYTHM SKETCH

Example 65:
(Small Band)

SUPPORT OF ELEMENT "A"

ELEMENT "B"

SUPPORT OF ELEMENT "A"

ELEMENT "B"

ALTOS

SAXES

TENORS

SOLO

2 TRPTS.

BRASS

TROM.

G G° Am7 D7 G G

PIANO

BASS

DRUMS

etc.

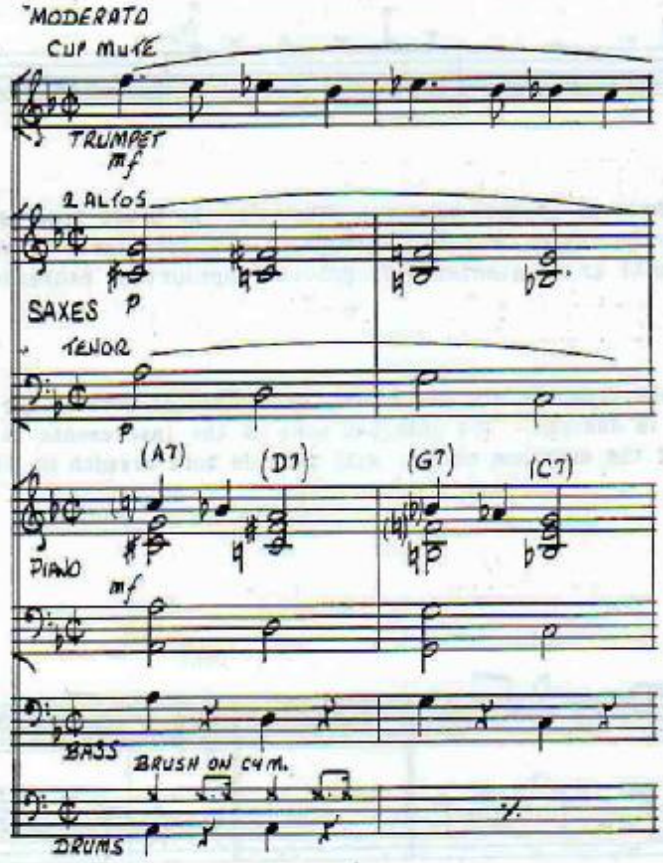
The same situation for a smaller band (Example 65), say three brass and four saxophones, would have Element A somewhat thinly harmonized and Element B a little heavy. The solution: Use the saxophones, which are the work-horses of the small dance type orchestra, in BOTH elements.

At first glance it might appear that the brass harmony in bars two and four will immediately sound "thin" because of the removal of the saxophones. This is not so in performance! If the saxes stopped altogether there would be a thinning, but the attention of the ear is diverted to the figures they play, and no loss of density is apparent.

The dominant organ point in bar three was taken by the trombones in the large band score. Here it is taken by the second tenor. Since his is not a particularly powerful voice, the organ point has been given more authority by fortifying it with the piano left hand and the bass drum.

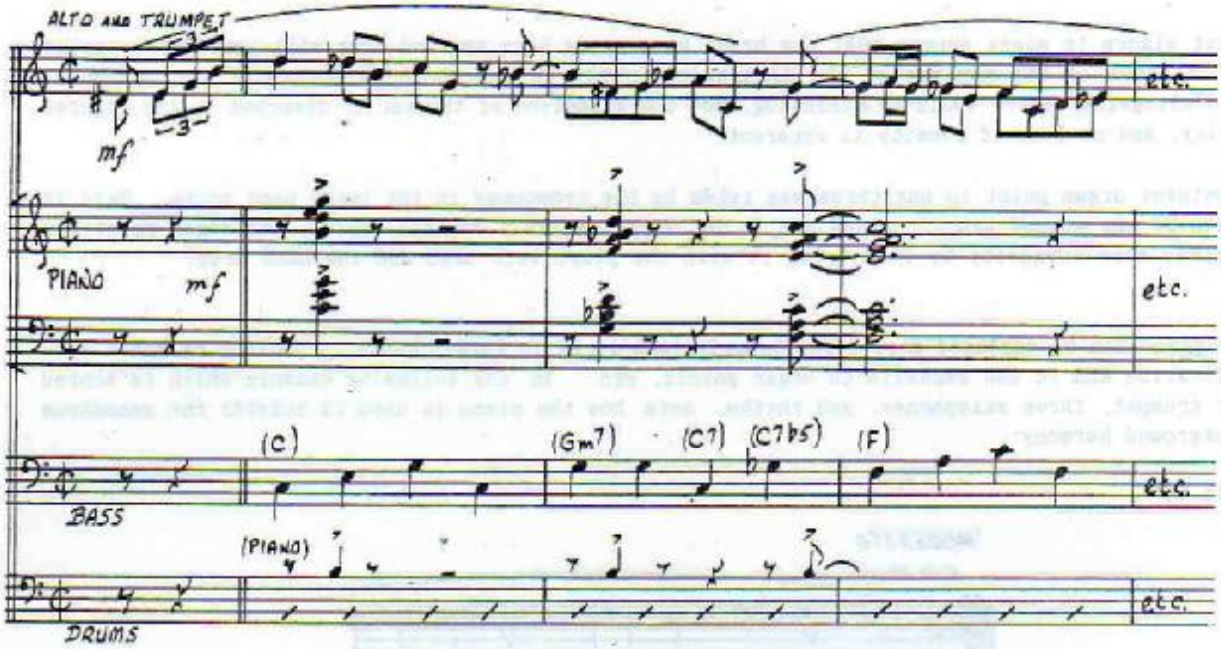
2. The piano can be employed more significantly than it is in larger bands to provide harmonic fortification and to add emphasis to organ points, etc. In the following example which is scored for trumpet, three saxophones, and rhythm, note how the piano is used to bolster the saxophone background harmony:

Example 66:



Percussive "punctuation" figures, which would likely be assigned to the brass in a larger band, may sometimes be performed on piano, or guitar. To illustrate:

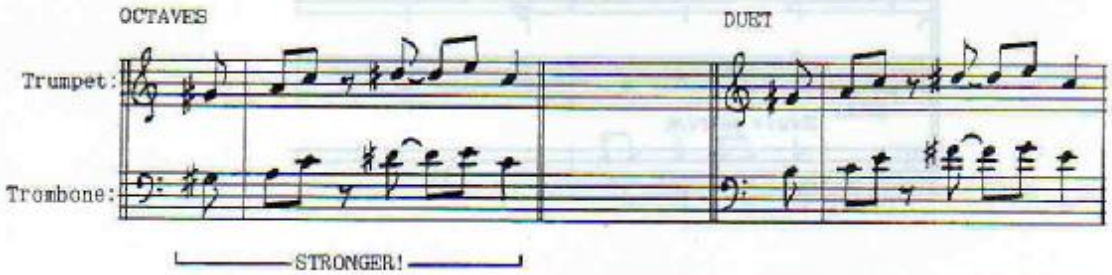
Example 67:



The above is similar to Example 25, except that the piano has the brass figures. It can be noted that the pianist is likely to be busier in a small group and will not likely allow many bars to pass unattended. A competent small group pianist will provide appropriate background "comping" from merely a chord symbol part.

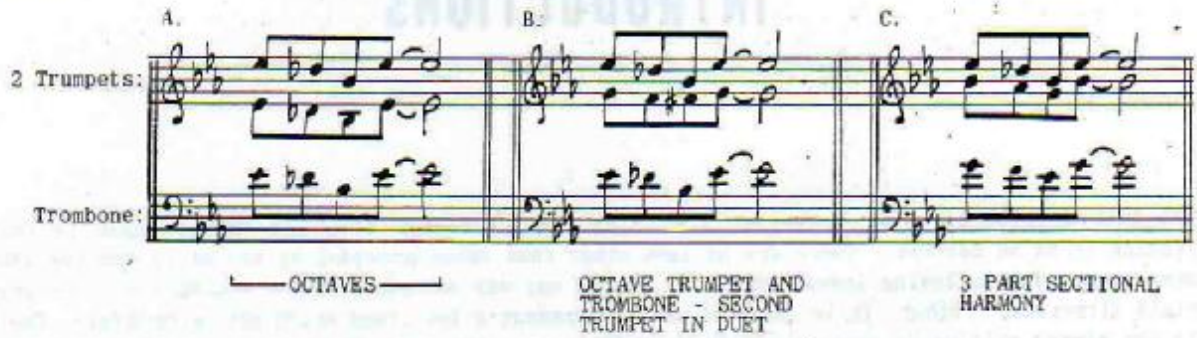
3. If only one trumpet and one trombone are available, use parallel octaves for those areas where the most "brassy" effect is desired. The combined tone of the instruments in octaves, and the resultant strengthening of the overtone series, will provide more breadth of sound than will duet harmony. To illustrate:

Example 68:



This is so, to a lesser degree, even with three brass. Of the following three fragments, A and B are the "brassiest":

Example 69:



4. In small bands, avoid writing open brass too high, particularly the trumpet. A high trumpet will not only produce awkward voicing problems, but the sound may often be harsh and unpleasant. Reserve the open notes above the staff for climaxes.

ASSIGNMENT 18

Use the following combinations, or similar groupings:

2 trumpets, trombone	trumpet, trombone	trumpet
2 altos, tenor	2 altos, tenor	4 saxes (2,1,1)
3 rhythm	3 rhythm	3 or 4 rhythm
		etc., etc., etc.

Arrange the following exercises (drawn from previous assignments), plus any others, for any of these combinations. (Note that the suggested keys are lower than the keys used with larger orchestras.)

1. From Assignment 13: a. Exercise 1, in key of C
   b. Exercise 3, in key of E♭
2. From Assignment 14: a. Exercise 1, in key of E♭
   b. Exercise 5, in key of B♭
3. From Assignment 15: a. Exercise 2, in key of B♭
4. From Assignment 16: a. Exercise 2
5. Also, arrange eight bars or so of a number of standard melodies, of differing character and tempo, for various small group combinations. Use different styles, including "single element", "melody with accompaniment", "countermelody", etc., etc.

Chapter 21

INTRODUCTIONS

The introduction to an arrangement is a brief area of composition and the arranger is free to fashion it as he desires. There are no laws other than those provided by the style and the instrumentation. The following investigation is not in any way intended to set boundaries or to provide rigid directions; rather, it is intended only to present a few clues which may be helpful. The Muse is not always willing to come at the first call of even the most facile writer and these pages may contain a few artifices by which she can be persuaded.

I. THE FUNCTION OF THE INTRODUCTION

The introduction prepares the listener for the main material to follow and, in dance music, allows time for the dancers to locate the tempo. From the point of view of a vocal or instrumental soloist, an introduction gives him time to settle into the environment of the music and gain a feeling of the tonality.

II. THE LENGTH OF THE INTRODUCTION

There is no set length for an introduction but, in popular music and jazz, the melodies normally fall into two and four bar patterns, so that introductions fall most naturally into multiples of two. A two bar introduction is usually too short so that four bars can be regarded as the usual minimum. A six bar introduction seems to satisfy the taste of a large number of arrangers and an eight bar introduction is the usual maximum.

Introductions of more than eight bars or less than four, or introductions composed of an odd number of bars, are less usual. They are, however, available.

III. TYPES OF INTRODUCTIONS

A. Introduction using an exact, or almost exact, presentation of the main theme, or part of it.

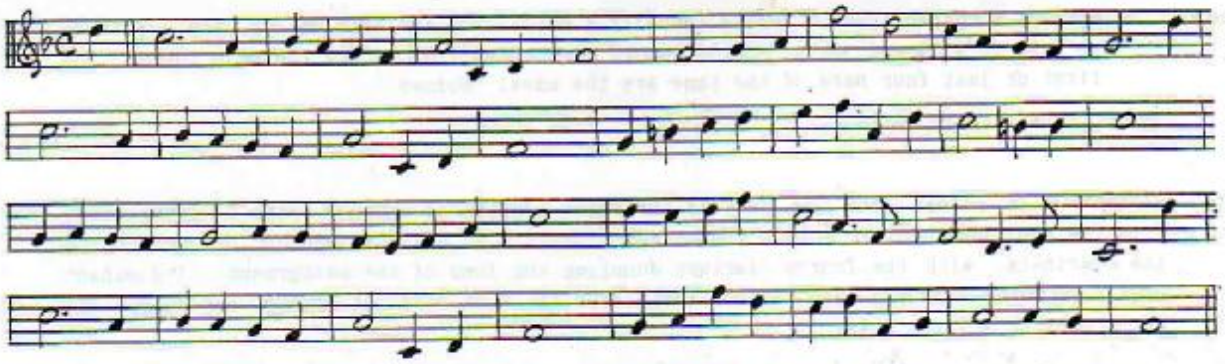
B. Introduction based on material from the main theme, subjected to variation, etc.

C. Introduction with no recognizable thematic relationship to the main melody, but which sets the general mood.

D. Introduction of a rhythmic nature, aimed only at establishing the basic "beat".

E. The "Vamp" or "Vamp Style" introduction.

Each of these will be examined in the following pages, and all of the examples for the first two types of introductions (and some of the other examples) are calculated to act as introductions to the standard melody "Jeanie With The Light Brown Hair". To aid the reader in tracing the derivation of some of them, the melody is herewith given:



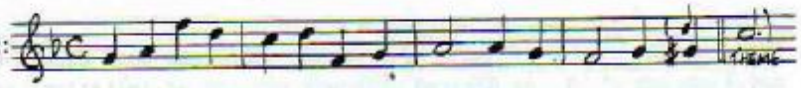
TYPE A. Introduction using an exact or almost exact presentation of the main theme, or part of it.

This type of introduction is obvious, and always works. While not of high artistic worth, it is valuable for the introduction of show acts, commercial singers, etc.

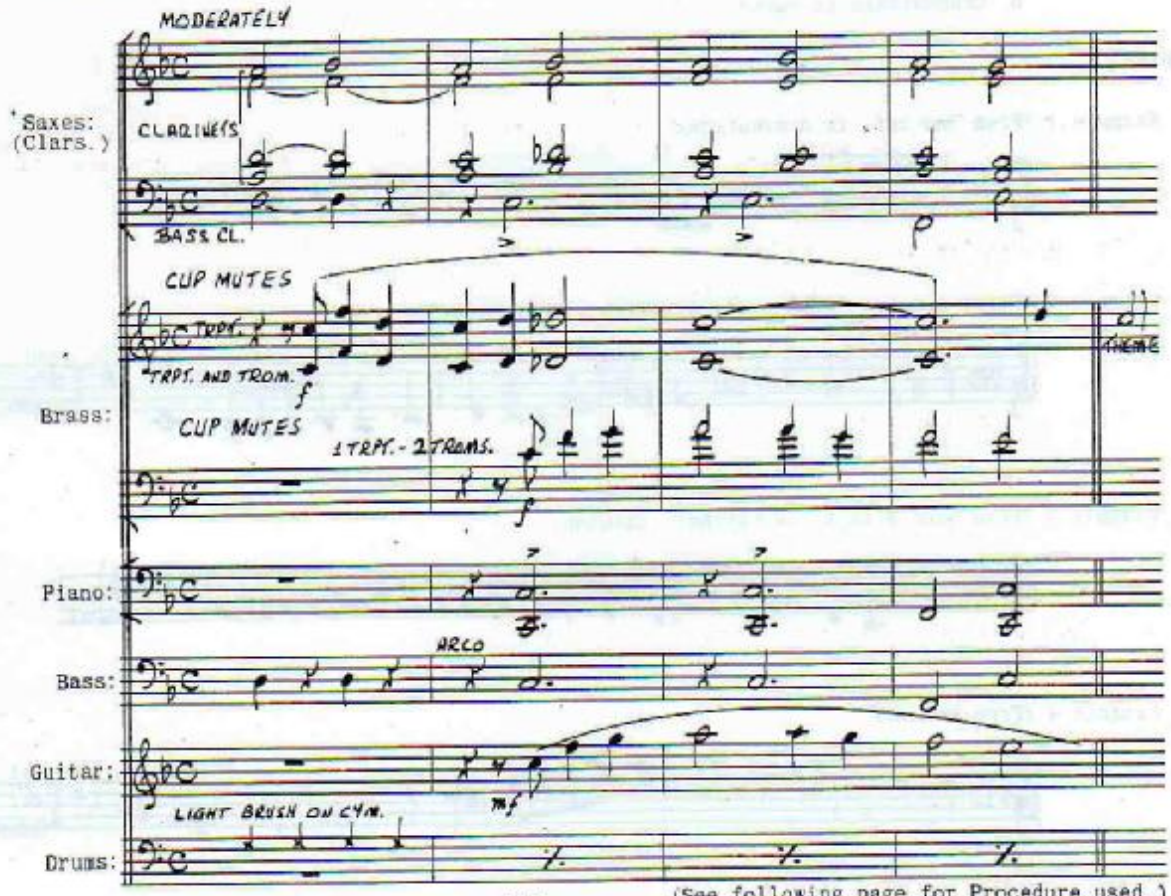
Examples:

Example 1:

Example 2:



Example 2 scored:



(See following page for Procedure used.)

Procedure used:

a. Extract a characteristic phrase (usually 4 bars) from the main melody, and adjust it so that it will end on a leading chord into the first bar of the main theme. The first or last four bars of the tune are the usual choices.

b. Orchestrate to taste.

Comments: Element A is passed from one part of the brass section to another, with re-inforcement from the amplified guitar. The accompaniment consists of a light cushion of harmony in the clarinets, with the fourth clarinet doubling the lead of the background. A dominant organ point is heard in bars two and three from the bass clarinet, piano, and bass. The drums provide a light pulse.

TYPE B. Introduction based on material from the main theme, subjected to variation and development.

This type of introduction will show a relationship to the main thematic material to follow, without being as obvious as TYPE A. In fact, its relationship may not, in some cases, be immediately discernible. The more subtle devices (such as retrograde) do, in fact, introduce new material. Even so, the new material will usually exhibit a satisfying kinship to the basic theme.

Procedure:

1. a. Extract any phrase or part of a phrase from the main line. Elaborate it, or a modification of it, as desired (through the use of imitation, sequence, augmentation, diminution, etc.).

   b. Orchestrate to taste.

Examples:

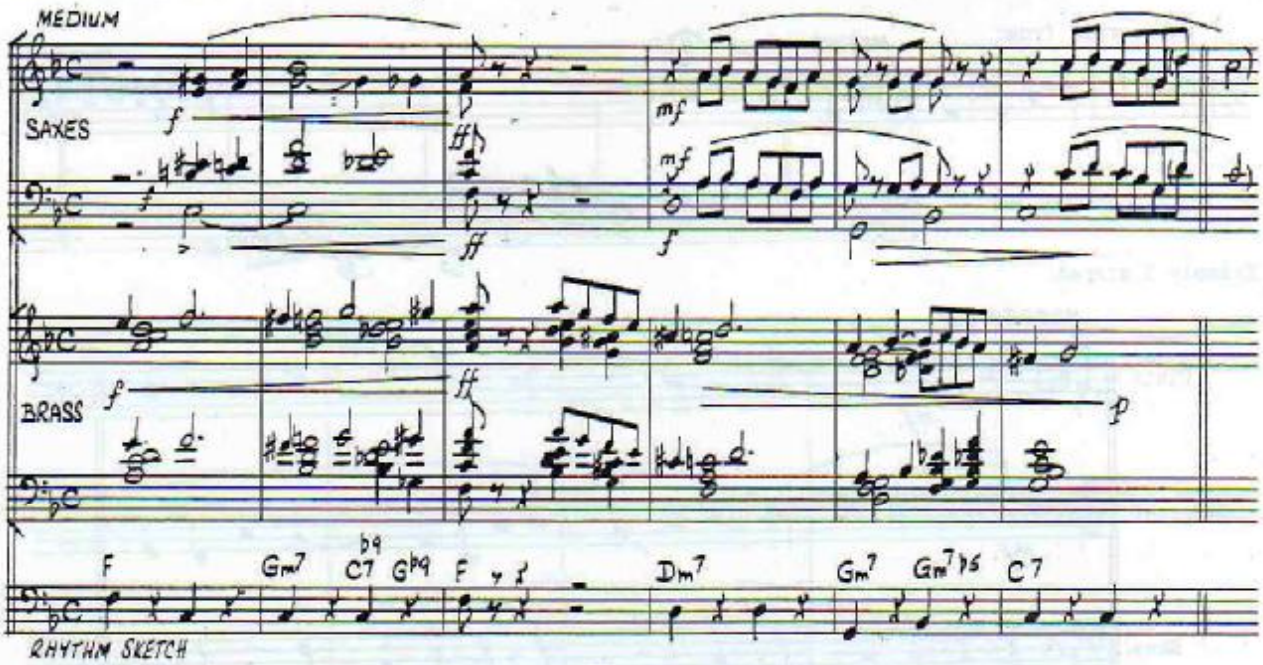
Example 1 (From 2nd bar, in diminution):

Example 2 (First 3 notes, with equal division of the octave):

Example 3 (From bars 3 to 8, in rhythmic fashion):

Example 4 (From bar 14):

Example 4 scored:



Comments: Element A is heard from the brass in a powerful ensemble voicing. It is modified slightly from the original in bars three and five, for rhythmic purposes.

The reeds enter in the first bar with an imitation of the brass, and then join forces in the harmony. The baritone has a dominant organ point. In the last three bars the baritone remains with the brass, while the altos and tenors play a short countermelody which itself shows relationship to the main theme to come.

Procedure: 2. a. Extract an idea through retrograde or inversion of a phrase or part of a phrase in the main theme.

b. Orchestrate to taste.

Examples:

Example 1

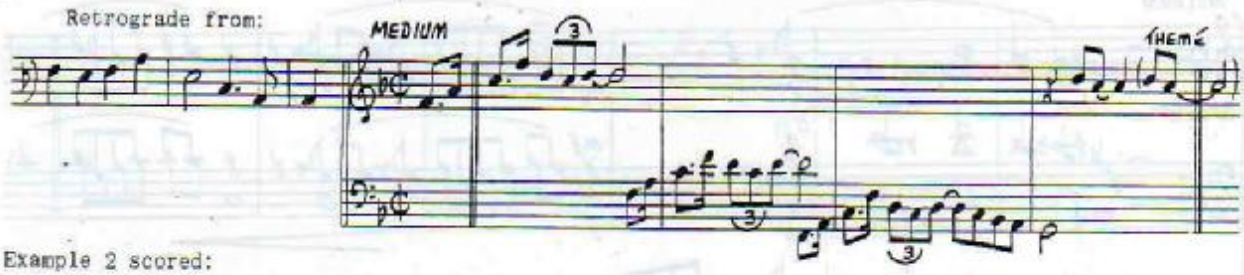
Retrograde in diminution from:

Example 2

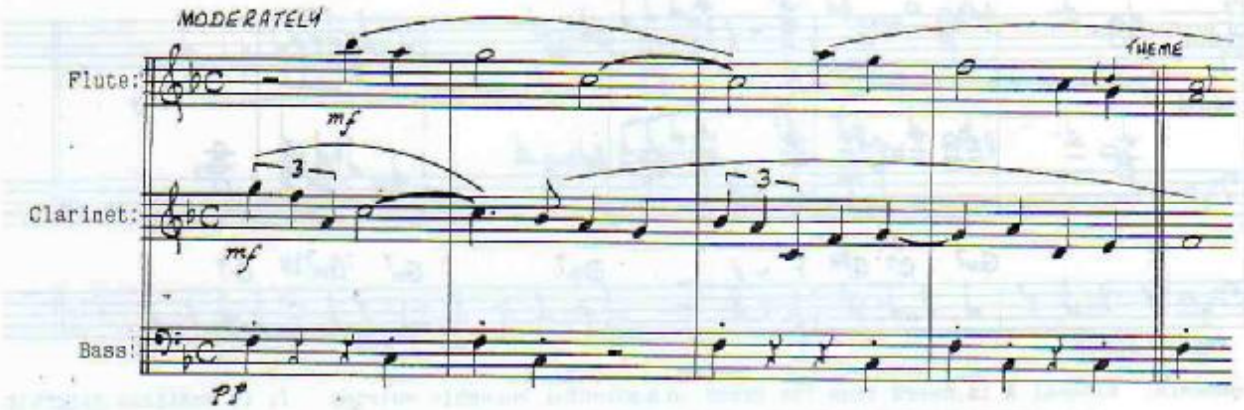
Inversion from:

Example 3

Retrograde from:



Example 2 scored:



Comments: A very light scoring, with Element A heard from the clarinet. The flute has been given a complementary line, with the bass providing a pulse based on an "alternating pastoral" organ point. The scoring could include a soft "brush on cymbal" beat, and the two lines could be effective in a number of different instrumentations; for instance, just piano, just vibes, piano and vibes, flute and vibes, flute and piano, etc., etc.

ADDENDUM

The principle which has been illustrated in these first two introduction types (i.e., the use, in some way, of material from the main theme) can be extended to include the use of background material, fill-in material, etc., as a source for ideas. That is, the introduction may be based on material which occurs in the accompaniment, or on material which is heard in modulatory interludes, etc. (The reverse of this is also practical: base accompaniment and interlude material on ideas from the introduction.)

For this reason, many arrangers prefer to delay the writing of the introduction until the rest of the score, or at least the sketch of the score, is done because ideas from the score itself may provide material for the introduction.

TYPE B. Introduction with no recognizable thematic relationship to the main melody, but which sets the general mood.

Introductions derived in the manner of TYPE C will show a relationship to the main melody in a "musical" sense, but may not always be emotionally or stylistically fitting. Consequently, the arranger may prefer to compose material which is related only in general mood and character to the music which follows. No specific directions can be given - it is primarily a matter of getting into the right frame of mind and then proceeding to create from the materials of musical feeling and musical knowledge.

The student should have reached certain general conclusions regarding the broad implications, emotionally, of the various melodic intervals and the various chord structures and progressions. These, plus an awareness of the available orchestral colors, can often make a good starting point for the creative faculties.

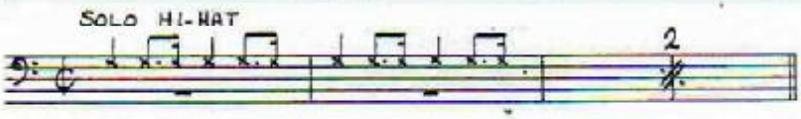
TYPE D. Introductions of a rhythmic nature, aimed only at establishing the basic "beat".

In an arrangement done for use in a dance orchestra, where rhythm is a primary factor, or for a jazz group where (although for a somewhat different reason) rhythm is also a primary factor, an introduction which is calculated only to "get things moving" will often be ideal, particularly at faster tempos.

Such an introduction can take many forms, from simple to complex. Some illustrations follow:

1. Simple drum introductions, as:

a.

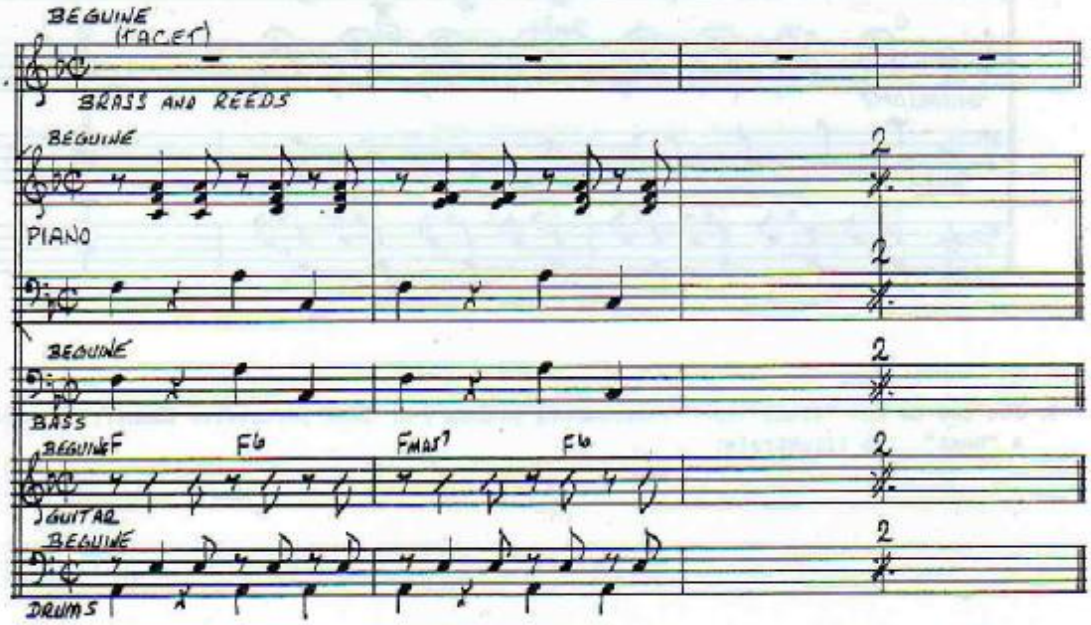


b.

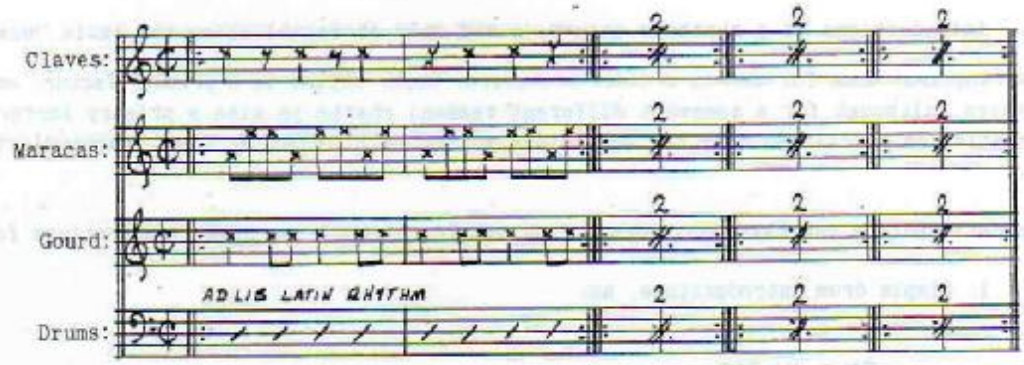
(Often it is more practical to indicate "ad lib" on such a part, allowing the drummer to modify and improvise to his own taste.)

2. Introduction aimed at establishing a specific type of rhythm, as:

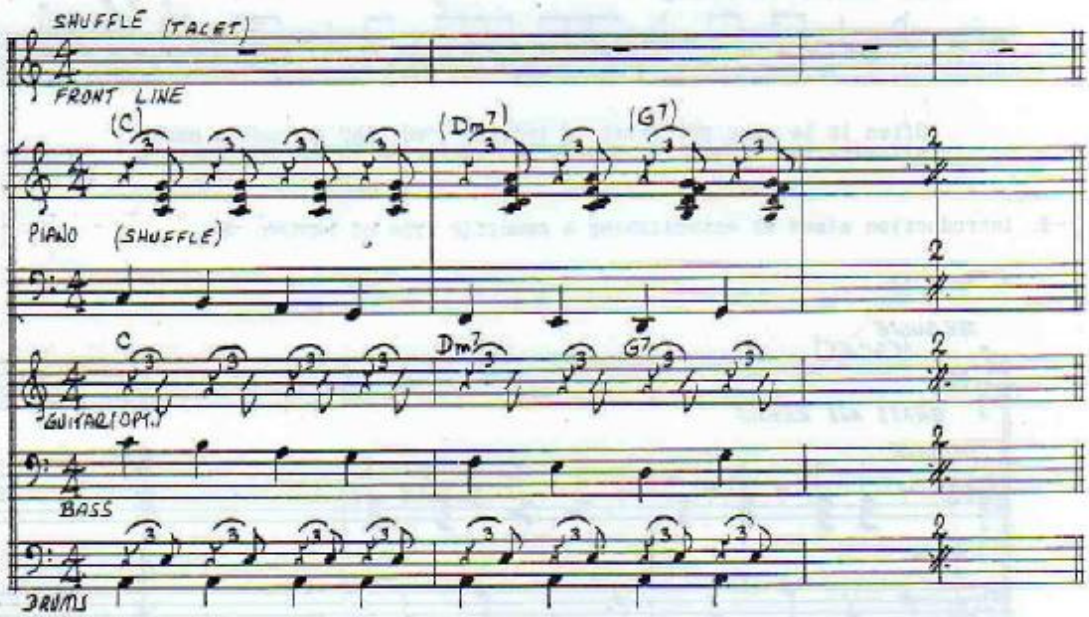
a. Beguine:



b. Latin introductions, using the Latin rhythm instruments. They may all start together or use the "staggered entry" idea. The introduction may be extended or shortened depending on the number of available latin accessories:



c. "Shuffle" rhythm:



3. The use of the "front line" instruments in a more or less percussive manner, to establish a "beat". To illustrate:

Example 1:

SWING!

SAXES ff

ALTOS AND TENORS

SOLO

BRASS ff

C Dm7 Db7 Cmaj7 Bmaj7 Bbmaj7 Bmaj7 Cmaj7 Bb9 Db9

RHYTHM SKETCH

Comments: This heavily orchestrated introduction is calculated to establish a heavy "big band" jazz rhythm. While it is not melodically illogical, it hasn't any real melodic value. The rhythmic anticipations, the emphatic voicings, and the off-beat organ point in bars three and four are all aimed at achieving a "beat" rather than at introducing a theme or a mood. Consequently, this introduction *would probably fit any number of arrangements in its style and tempo.*

Example 2: MUTED TRUMPET MEDIUM

mf

FLUTE

CLAR.

CLAR.

mf

MUTED TROM. OR BASS CLAR. OR TENOR

mf

PIANO

mf

Eb9 Ab9 Db9 Gb9 B9 E9 A9 D9 D7

BASS

mf

BRUSHES

DRUMS

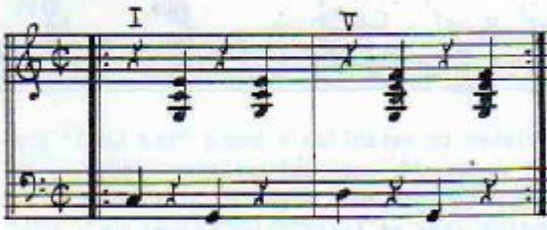
Comments: While of an entirely different character than the previous example, this is also primarily a *rhythmic* introduction, and will establish a bouncy and commercial two in the bar beat. It is a light scoring of a simple "cycle" progression which is quite neutral harmonically and melodically. It would fit any number of arrangements in this style and tempo.

There are many possibilities for *rhythmic* type introductions, and the student should have no difficulty in unearthing further examples. Also, many *rhythmic* type introductions fall into the "vamp" category. (See below.)

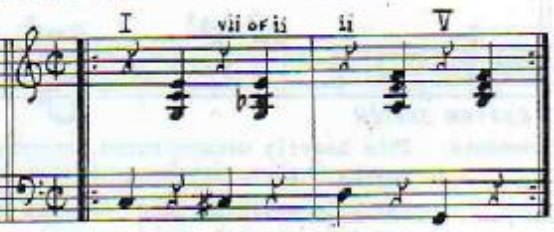
TYPE E. The "Vamp" or "Vamp style" introduction.

A vamp introduction, in its basic form, uses a short (usually two bar) phrase which is repeated at least once and, in show business, very often repeated "till ready". It will be based on a simple progression such as "I - V", "I - vi - ii - V", "ii - V", etc. A few fundamental models are shown here:

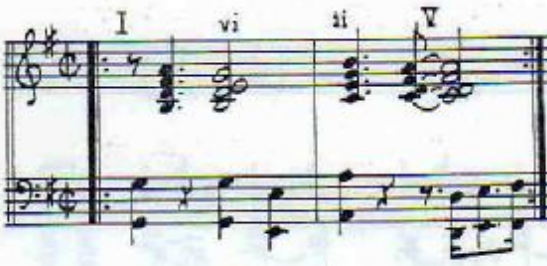
Example 1:



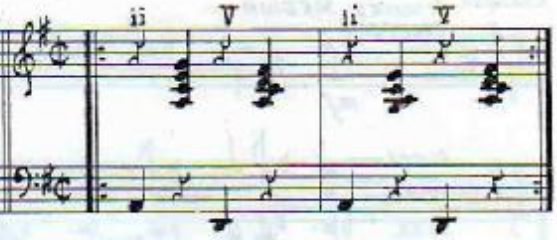
Example 2:



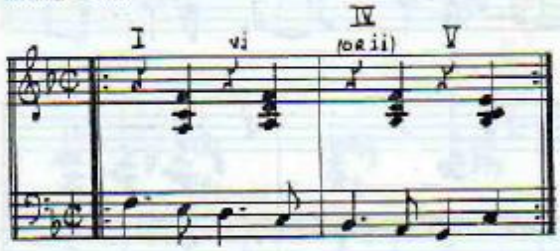
Example 3:



Example 4:



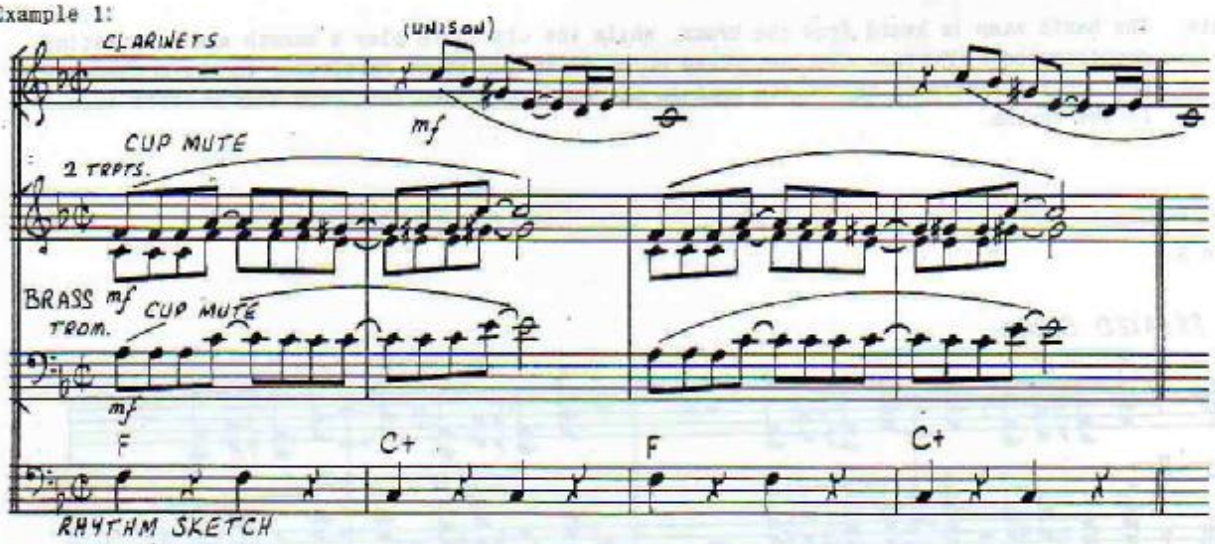
Example 5:



These models illustrate the vamp in its simplest form, with a strong and definite rhythm, simple harmony, and a minimum of melodic value.

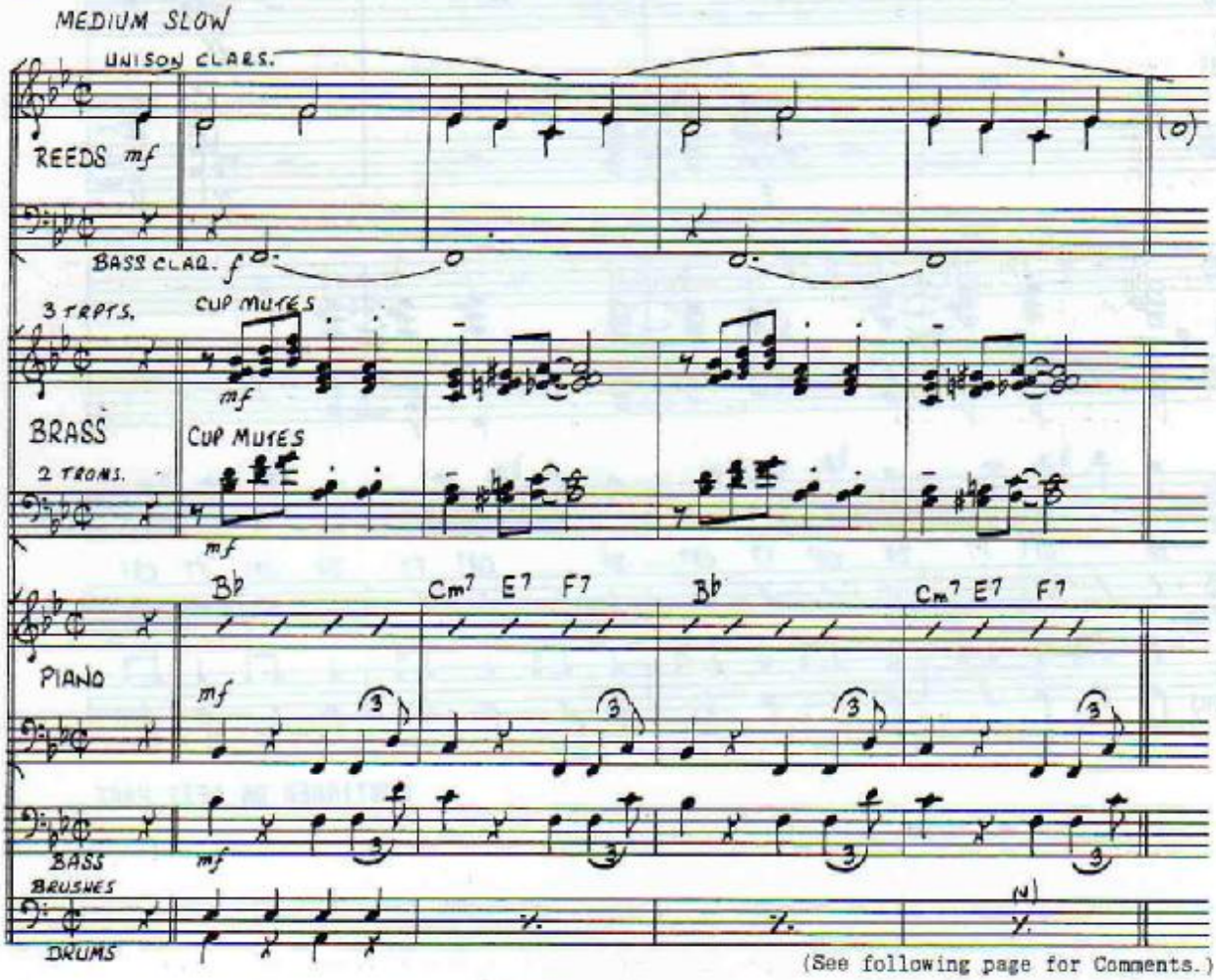
There are many areas where this simple form may be, and is, used (e.g., floor show music, cowboy music, "bridge" material between tunes in a medley, etc.) but the simple vamp framework may be elaborated with more important melodic lines, accompaniments, countermelodies, etc. A few examples follow:

Example 1:



Comments: The basic vamp is given to muted brass, with an accompanying fill-in figure from the unison clarinets. The total effect: Light and commercial.

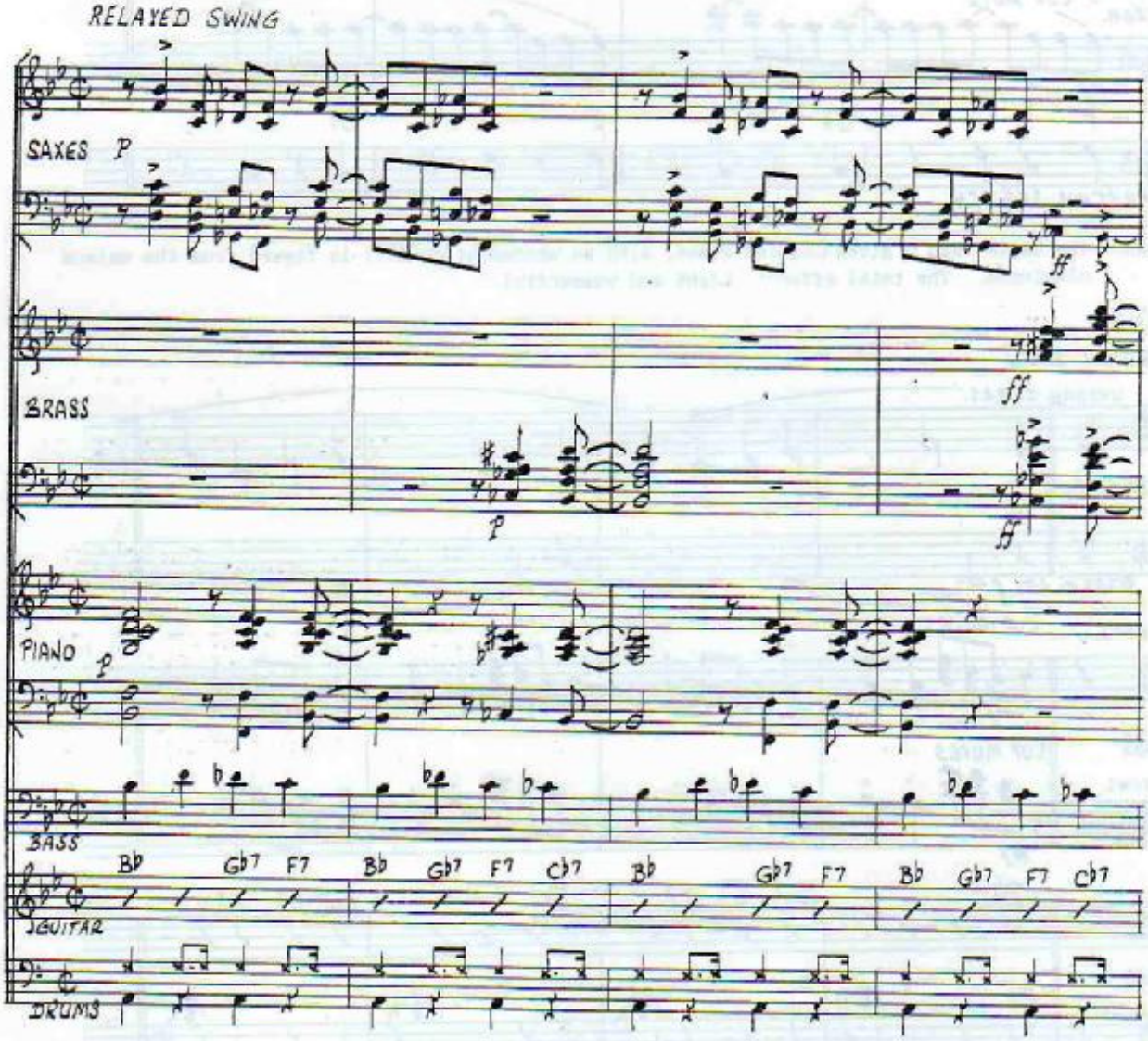
Example 2:



(See following page for Comments.)

Comments: The basic vamp is heard from the brass, while the clarinets play a smooth and contrasting countermelody. The bass clarinet organ point is an important subelement in the accompaniment and the figure on the fourth beat in the bass and piano left hand adds an extra *bounce* to the rhythm.

Example 3:



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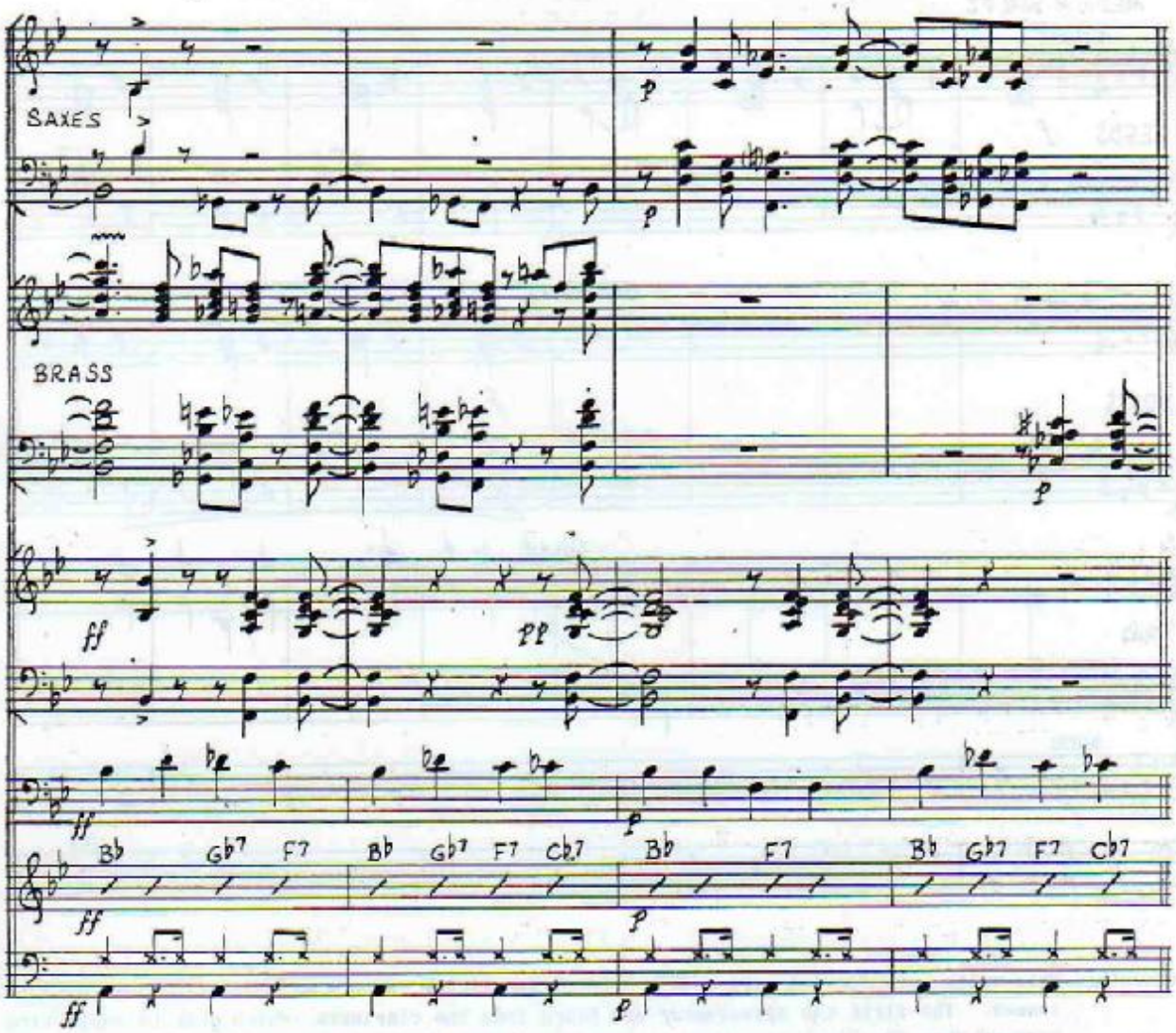
Example 3 (cont'd):



Comments: This example, scored for large band, shows four appearances of the vamp figure. The first two are identical, and are joined with a light trombone punctuation. Both are marked "softly".

The third appearance shows an abrupt change of register, dynamics, and instrumentation. The brass is scored in a heavy fashion, and the fourth trombone is aided by the baritone. The rhythm of the vamp figure is modified slightly. The fourth appearance returns to the saxes, and is similar to the first two, except for another slight rhythmic modification. The piano provides a cushion of rhythmic and harmonic support.

The harmony is basically |I - V - |I - V - | with some added passing and appoggiatura "♭ii^{+6}" of V's and "♭ii^{+6}'s".

Example 4:

MEDIUM WALTZ

4 CLARS

REEDS *f*

2 TRPTS.

CUP MUTES

BRASS

f

1 TROM.

CUP MUTE

SOLO

PIANO

ARCO

BASS *f*

(8)

DRUMS

Comments: This waltz introduction uses a very simple vamp figure, with a minimum of melodic significance. The first two appearances are heard from the clarinets, which drop to supporting harmony when the brass take over in bar five. The second four bars, besides introducing the brass, also bring in a countermelody in piano octaves.

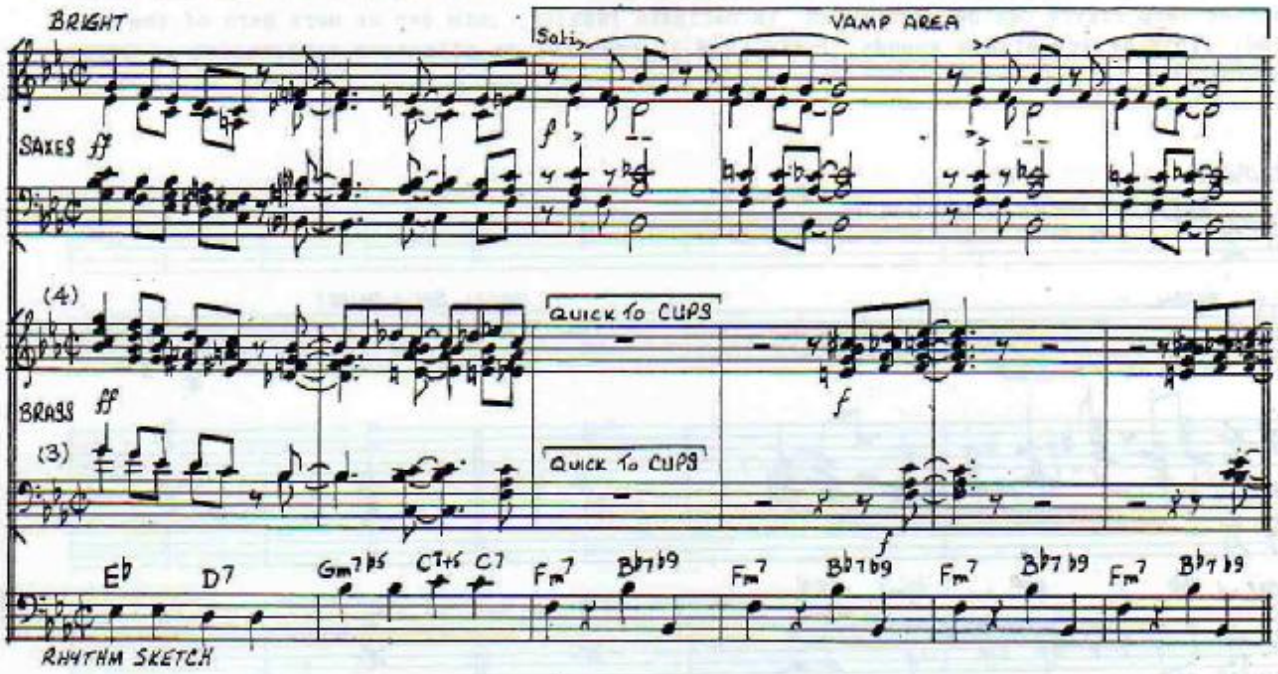
The previous examples of vamp introductions are fairly "neutral", in the sense that they could act as introductions to almost any arrangement which suited the style, tempo, and instrumentation. It is also possible to draw the vamp figure from the main thematic material to follow. The procedures of TYPE B, where the introductory material is drawn from the main theme, can be applied.
To illustrate: ("Jeanie With The Light Brown Hair")

Example 1:

Example 2:

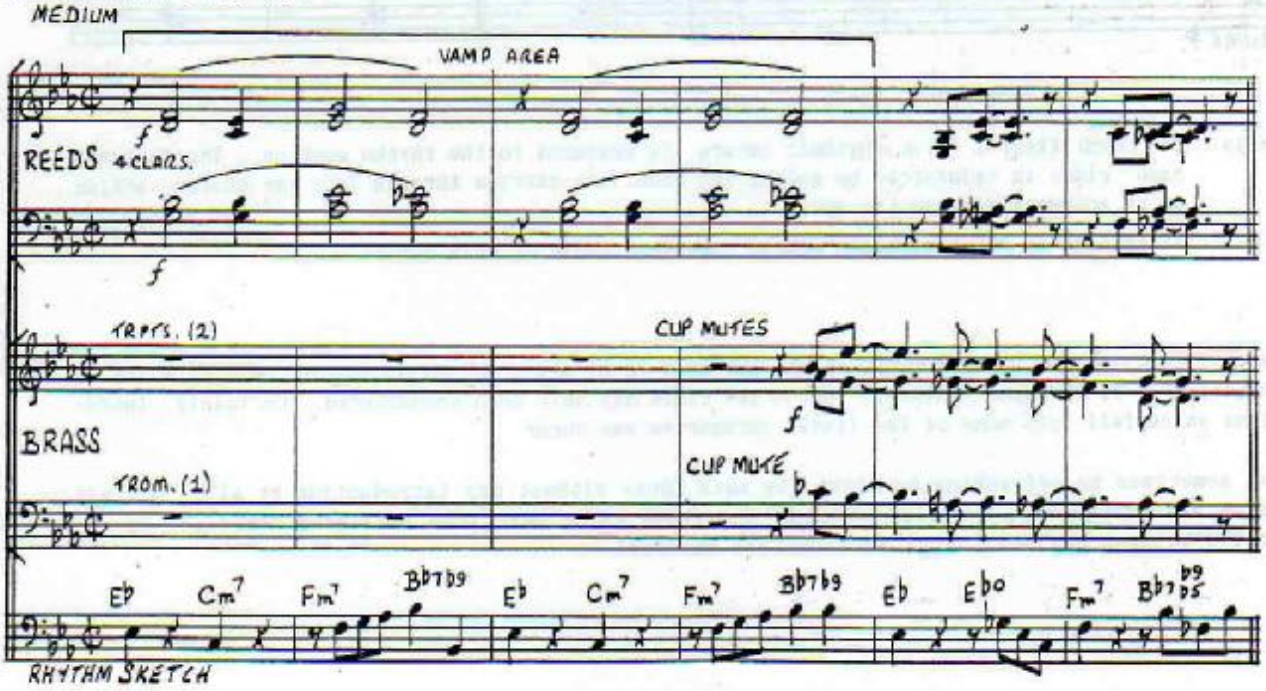
Example 3:

Further, an introduction which is not of the vamp type may employ two or four bars of a vamp figure as a sort of "bridge" into the main theme. To illustrate:



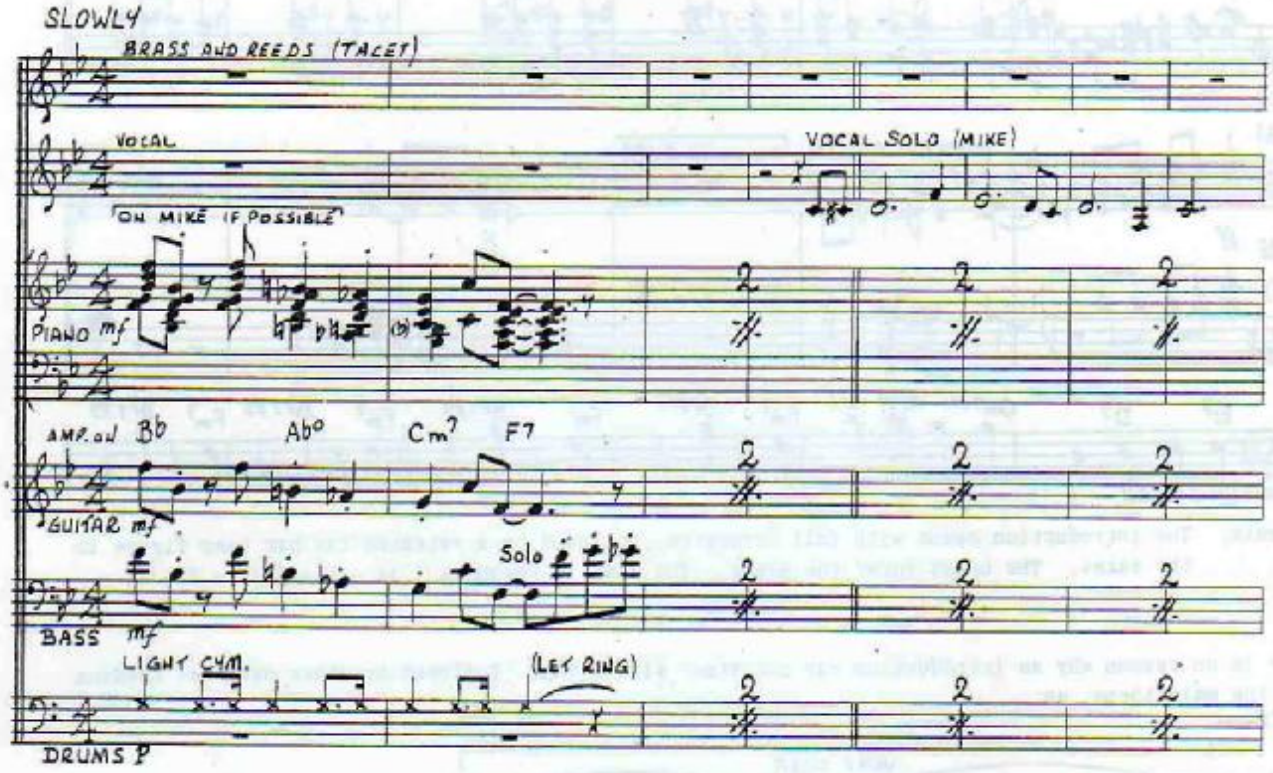
Comments: The introduction opens with full orchestra, followed by a repeated two bar vamp figure in the saxes. The brass cover the seams. The vamp is based on | ii - V - | ii - V - |.

There is no reason why an introduction can not start with a vamp, followed by other material leading into the main theme, as:



Comments: Light scoring for a smaller band, utilizing clarinets and muted brass.

Finally, if the melody and progression of the main theme allow, it is often effective to base the vamp figure on the harmonic progression of the first two bars of the main theme and to calculate it so that, as well as being briefly self-sufficient, it can act as an accompaniment to the main theme. Then the vamp figure can be carried on, in ostinato fashion, into two or more bars of the main theme. This device always sounds crafty, and it provides an effective combination of ideas. To illustrate:



Comments: The vamp figure, of a rhythmic nature, is assigned to the rhythm section. The "locked-hand" piano is reinforced by guitar and bass. It carries through into the chorus, acting as an accompaniment to the vocal.

Example 36 in "Orchestration" shows another example of this device.

It bears repeating that this chapter is not intended to be a set of directions on "How to Write an Introduction". It is hoped, however, that a few clues may have been encountered. Certainly, introductions which fall into none of the listed categories may occur.

It can sometimes be refreshing to start the main theme without any introduction at all! Not all melodies are suitable to a "cold" opening, but those which have some sort of a "lead-in" may be effective without any additional introductory material.

ASSIGNMENT 19

1. Take the music for a couple of standard melodies, in different styles, and extract from each a number of ideas suitable for introduction use. Include material derived:

   a. Directly from part of the theme.
   b. As a variation of part of the theme.
   c. From a retrograde or inversion of part of the theme.

2. Work out a few ideas for *rhythmic* introductions of various types.

3. Experiment, at piano and written, with a few "vamp" style introductions.

4. Orchestrate a few introduction ideas for various instrumental combinations.

5. Listen carefully and analytically to recorded arrangements, with specific concern for the material used in introductions, codettas, modulations, interludes, fill-ins, etc.

PART SIX

CONCLUSION

SOME FURTHER CONSIDERATIONS IN ARRANGING

(not necessarily in order of importance or concern)

I. STYLE

Style is an important factor in all arranging, and encompasses a wide range of considerations. Almost every concern is influenced in some way by the intended style of the arrangement. The choice of harmonies, of tone colors, the rhythmic patterns, the backgrounds, even the instrumentation, are all integral factors of the style. As in so many aspects of this study, the only way to gain control of stylistic considerations is through analytical listening and personal experimentation.

The function the arrangement is to perform should be the first decision of the arranger. For instance, if the arrangement is intended for dancing, the rhythm must be the first consideration; the clear enunciation of the melody the next. The harmonies, the voicings, the backgrounds, and all of the other considerations should be aimed at *aiding the rhythm* and not confusing it; at *enhancing the melody* and not obscuring it. Simplicity and directness of approach should be foremost. While it is true that the style of a "ballroom" band can be at a higher musical level than can the style of hotel or night club band, it is also true that both areas are concerned with the presentation of music which is conducive to dancing. Good dance music need not be trite, nor need it necessarily be dull to listen to; but an attempt to make a dance band arrangement a vehicle for some profound personal expression will likely lead to the defeat of the primary function of the arrangement, and may very well lead to an undesirable quality of pretentiousness.

The so-called "stock" dance arrangement approaches the problem in a purely functional manner, and the result is usually acceptable dance music without a high degree of musical value. Writing done for a known combination of instruments (an advantage not enjoyed by the stock arranger) may achieve more artistic value without sacrifice of the necessary functional qualities.

Music for dancing is certainly not, of course, the only area in which the arranger operates. Whether the arrangement is to be a jazz vehicle, a commercial radio or television assignment, a stage presentation, a vocal background, or any other type, there will be certain stylistic requirements. It is important to be aware of them and to work within the limitations they prescribe.

Once the intended style has been determined it is important to be consistent. There is not likely to be any merit in an arrangement which changes style every sixteen bars or every chorus. ("Stock" dance band arrangements very often change style in the last, or "out", chorus, with a heightening of activity, increased use of syncopation, heavier scoring, louder dynamics and, in many cases, a move from two in the bar to four in the bar for the bass. This is a time tested formula which is not found to any extent outside of the stock arrangement idiom, and which has no particular merit other than that of acting as sort of extended climax to the arrangement and providing a lift to the dancers.) A piece of music, whether for listening or dancing, which lasts only three minutes or so should not contain a sharp change of mood or style unless for a specific, and relatively rare, psychological purpose.

So, to sum up:

a. Know the function the arrangement is to perform,

b. Determine the style to be used,

c. Retain it.

II. VIEWPOINT

Try to find a viewpoint, an "angle" before beginning the arrangement. Despite the stylistic and functional limitations mentioned above, all music must serve to some degree, the interests of self expression. The arranger should strive, in all of his work, to cultivate freshness and originality. (Even the most hackneyed cliche can be given a personal twist!) The viewpoint an arranger takes to a score may be derived from or based on one or more of a number of things: a rhythmic background figure, a particular voicing, an orchestral color, a subtle harmonic modification, etc...etc. This does not mean that a "gimmick" approach to an arrangement is desirable, it means, rather, that any meaningful arrangement must be more than just a harmonization of the tune.

Play the melody and sing it. Become familiar with its harmonies and possible alternative harmonies. Get a feeling for the mood of all of these things, plus the lyrics, if any. Experiment with backgrounds and countermelodies. Spend an hour at this, or a day, or whatever time is necessary *before* beginning the arrangement. Not only will it help the achievement of a viewpoint for the specific problem at hand, but it is also excellent practice for the development of the creative faculties.

III. LENGTH

The standard length of an arrangement can be regarded as the usual length of one track of a popular record, i.e., approximately three minutes; but this is subject to wide variation. Stock dance arrangements, played in their entirety, will often exceed this time by one or two minutes, and an arrangement of an "up tempo" jazz line using a number of improvised solos may run considerably longer.

After determining the tempo desired, beat off eight bars with a watch to calculate how many choruses will be required. Remember that a certain number of bars will be used for the introduction, codetta, interludes, etc.

Therefore:

a. Two and a half minutes may be regarded as a fair minimum.

b. The maximum length cannot be definitely established, but will vary with the style and function.

IV. KEY

In the normal course of popular arranging, the keys in common use favor the "B♭" and "E♭" instruments:

FLAT KEYS	- C -	SHARP KEY
D♭, A♭, E♭, B♭, F		G

This is not to say that the others are not or cannot be used, but they are less frequent. The minor keys most often encountered also favor the "flat" side:

FLAT KEYS	- Ami -	SHARP KEY
Dmi, Gmi, Cmi, Fmi, B♭mi, E♭mi		Emi

(It can be noted here that string writing, because of the tuning of the "open strings", favors the sharp keys.)

The key should be chosen with concern for an appropriate range placement of the instruments involved, particularly the lead instrument or instruments, or the vocalist. To illustrate:

A. If, for instance, a girl vocalist has a comfortable range of:  the key chosen must place the melody within these limits.

It is also wise to note the area in which the melody is mainly located. For instance, a melody might have an overall range of an 11th, but could be mainly situated in the upper region of this range. In such a case, the key chosen should avoid placing the top note of the melody at the extreme top of the vocalist's range, to avoid undue strain.

B. If a main feature of the passage is brass lead, and the band is not large, choose a key that will not take the lead trumpet above the staff. On the other hand, if the band is large, with a full brass section, the key will have to be higher to allow room below to keep the supporting parts in a comfortable range.

C. In heavy full scoring, the key chosen should also consider the low instruments, such as the baritone saxophone, bass trombone, etc. A key that will give low and solid roots or organ points will probably be desirable. Arrangers often favor the key of D♭ for saxophones, because of the availability of the low tonic on the baritone. If the player has a baritone with the low concert "C" available, the keys of C and F (for low tonic or dominant) are fine.

D. A passage featuring saxophones will require a key that provides a comfortable range for the lead, as well as consideration for the favorable placement of the baritone and tenors.

E. If clarinet lead over saxes or brass is to be used, choose a key that will place the clarinet between, approximately:

A higher key may be somewhat shrill, and a lower key will not project.

V. MODULATION

Modulation has two main uses:

1. To procure a more satisfactory key for range considerations in the next area.
2. To alleviate monotony.

The first reason is fairly obvious. If the first chorus is in a key which is good for brass lead, but is not satisfactory for the range of the instrument or vocalist to be featured in the next chorus, a modulation is indicated.

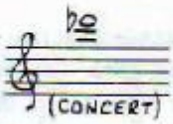
The second reason is kin to the considerations of form, climax, etc. It is quite possible to have two, or even three, choruses in the same key if the tempo is not too slow, or if there is sufficient use of other means of gaining variety. Many arrangers prefer to change key in a third chorus, either simply to break the monotony or to increase the climactic possibilities.

There is no obligatory length for a modulation. It is often possible to modulate without added bars, particularly if the melody has a two bar ending, thereby allowing modulatory material to be used within the existing formal framework. If added bars are desired or required, two, four, six, or eight are the usual additions.

Take the utmost care to ensure that the melodic and harmonic material of the modulation is organically related to the work as a whole. Construct it from previously heard thematic or background elements, or let it be an extension of the final bars of the previous chorus. Conceive it not just as a key change, but as a logical musical bridge from one chorus to the next. (For a detailed examination of modulation techniques, see "MODERN HARMONIC TECHNIQUE".)

VI. BRASS CONSIDERATIONS

As the instrumentation text indicates, the upper limit of the brass ranges is always variable. While the top B♭'s of the trumpet and trombone are traditionally recognized as the "safe" high limit, most competent *professionals* expect to play higher. It is not uncommon to find *lead* trumpet parts written up to:



and lead trombones up to:

Nevertheless, these are *extreme* and should not be used except briefly for climactic effects, and then only when the band is large enough to provide adequate support underneath. Aside from the strain the high altitudes place on the player, too frequent use of them weakens their artistic value.

Brass written too low leads to density and muddiness, and a loss of tonal clarity. The brass function best, and with most resonance, in the middle register.

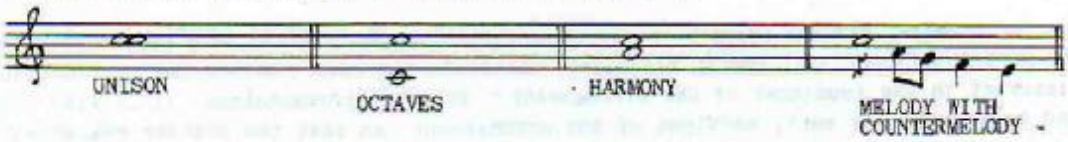
Finally, endurance is always a problem with brass players. They are not able to play as continuously as the reeds or rhythm. Provide adequate rest, and do not overwork them.

VII. TONE COLOR

The orchestrator is advised to survey the available colors contained in the group for which he is writing. Usually they are more extensive than they appear to be. For instance, assume a group has a "front line" of only two performers - a trumpet, with standard cup, harmon and straight mutes, and a tenor saxophone doubling clarinet. Here are the available colors:

Open trumpet	Open trumpet with clarinet
Cup mute trumpet	Cup mute trumpet with tenor
Harmon mute trumpet	Cup mute trumpet with clarinet
Straight mute trumpet	Harmon mute trumpet with tenor
Tenor	Harmon mute trumpet with clarinet
Clarinet	Straight mute trumpet with tenor
Open trumpet with tenor	Straight mute trumpet with clarinet

These combinations can be arranged in a number of ways, e.g:

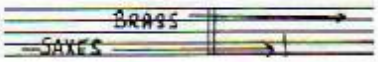


Some of the combinations do not differ greatly from one another, but even so there is a surprising variety from which to choose. Furthermore, these are very limited resources, since the arranger usually writes for more performers, with a corresponding increase in the number of available tone colors. It is not a bad idea to list some of the combinations and colors available in the group you are writing for, so that your attention is drawn to the resources.

The question: "How often should the color be changed?" arises frequently. There is no rigid answer. The form of most melodies provides phrase and sentence divisions which are obvious points to make color changes. A change after eight bars is common, but there is no harm in retaining the same color for sixteen bars or longer and there could be occasions where the color could change in less than eight bars. The words "unity" and "variety" are the clues. Change often enough to provide sufficient variety, and to avoid monotony, but do not change so often that the unity is threatened.

When mutes are being put it, taken out, or changed - and when saxes are changing to clarinets or vice versa - be sure to allow enough time to make the change comfortably. Mutes can be put in or taken out in a couple of beats, *if* necessary and *if* the performer is prepared for the change, but an actual change of instrument needs at least five seconds, and even that would be an imposition.

One important detail (too often ignored by the novice arranger) is worth special mention:

> While there may be rare occasions when an abrupt change of instrumentation is desirable, for the most part prominent "seams" should be avoided. To illustrate:
>
> Do not simply stop the reeds and start the brass (or vice versa) but, rather, "interlock" so that one emerges from the other. This can be done through the use of an anacrusis in the new color, as:
>
> 
>
>
> or by elongating the first color a little, as:
>
> 
>
>
> or both, as:
>
> 
>

VIII. THE CLIMAX

The positioning of the climax is a consideration of form. Generally, it should occur in the second half of the arrangement or, occasionally, at the end. The climax may be of short duration or it may be more prolonged, in the sense of a "climax area". The main climax is generally termed the "primary climax" and there may be one or more "secondary climaxes" depending on the length and nature of the arrangement. A secondary climax may be followed by a more placid area leading to the primary climax or, again depending on the length of the arrangement, to another secondary climax.

The materials of a climax are:

Higher Pitch Level
Higher Dynamic Level
Increased Activity
Increased Harmonic Tension

It is not unusual to find all of the ingredients in a climax.

The easiest error to make, and the primary one to be avoided, is the creation of a premature climax. Too often the novice arranger will employ his climax materials too soon, thereby making it difficult to sustain interest in the remainder of the arrangement. In most circumstances, it is wise to use restraint and economy in the early sections of the arrangement, so that the heavier resources are held in reserve. Furthermore, it is *not* necessary to have an "all out" climax in every arrangement! The feeling of a climax is relative to what has gone before. For instance, a note at "forte" at the top of the staff will be climactic if the notes preceding it were in the middle of the staff at "piano".

The other, less frequent, error is lack of provision for any climax at all. This results in monotony and a feeling of dissatisfaction. Such a situation might be acceptable in some fields (e.g., background dinner music) but controlled climaxes are necessary to the emotional content of most music.

IX. FORM

Since each chorus of an arrangement is likely to follow the form of the melody being arranged, an entirely formless arrangement is impossible. However, even when using the established framework of the melody to work with, it is surprising how many novice arrangers will come close to chaos. Specific directions providing a foolproof guide to the retention of form and the avoidance of aimlessness are not, unfortunately, available. The concept of form is linked to all other considerations of music. Here are a few pointers which may be helpful:

Before writing a note, decide on:

a. The length of the arrangement
b. The key, or keys, to be used
c. The tone colors and the general location of each
d. The position of the climax or climaxes
e. The general mood, viewpoint, style, and function of the arrangement.

That is, conceive the arrangement as much as possible as an Entity, as a Unified Whole, rather than as a series of four, eight, or sixteen bar statements.

It is quite in order to sketch out a basic plan. The following is a sample:

KEY F - SIX BAR INTRODUCTION - CLARINETS AND MUTED BRASS

First Chorus
- A. Sixteen bar muted brass lead, clarinet background
- B. Eight bars unison clarinets
- C. Eight bars muted brass (clarinets change to saxes)

D. Four bar modulation to key of E

Second Chorus
- Vocal: E. 16 bars sax background - some brass figures
- F. 8 bars bass, guitar and piano background figures
- G. 8 bars sax background (similar to letter E)

H. Return to bridge for eight bar full ensemble, open brass using climax material

I. Last eight bars vocal again - background similar to second chorus

J. Short codetta, perhaps based on introduction material

or, alternately, *set the whole arrangement up on the actual score*, complete with letters. Then sketch in the framework of the leads, backgrounds, etc. Fill in the harmony and other details last.

or, alternately, (as more experience is gained) work out the essentials of the *complete arrangement* mentally, before actually writing any of it.

Whether a plan is established in one of these, or any other ways it is of the utmost importance to visualize the complete work from the outset. Only in this way can the arrangement be expected to have continuity and coherence. *Nothing is more detrimental to the form of an arrangement than a situation which finds the arranger at the end of the first chorus without any idea of what he is going to do in the second!*

Do not forget the tempo -- Since most arrangements are not done at one sitting, there is always a possibility that the latter parts of the score will be conceived at a different tempo than the beginning. If you intend to continue today with a score that you started yesterday, by all means go back over what you have written so that you regain the right tempo, mood, and frame of mind.

Avoid irrelevant or unstylistic material -- Guard against the practice of filling up a bar or two with some remembered or half-remembered phrase which may fit the harmony but is out of character with the work at hand.

Do not look for new ideas and new material every step of the way -- Aim for organic unity through the manipulation of material heard earlier in the work, or to be heard later. The use, for instance, of material from the introduction or from the background for "filler" phrases is an obvious way of gaining continuity. The introduction, modulatory interludes, the codetta, the backgrounds, the countermelodies, etc., can all be related to one another. The devices of repetition, variation, retrograde, inversion, augmentation, diminution, etc., can be made to work for the organic unity of the whole.

X. THE INTRODUCTION

It is customary to use an introduction of four, six, or eight bars. Introductions are discussed in detail in the previous chapter.

XI. THE CODETTA

A "coda" is, literally, a "tail"; a passage added to the main body of the work to provide a more satisfactory close. Since, compared to much classical composition, most arrangements are short, only a short coda, a "codetta", is needed. It is seldom satisfactory to end the arrangement on the final note of the melody (unless it is approached with a marked rallentando) and the codetta serves to tie up the proceedings. No specific directions can be given other than to remark again on the necessity to avoid irrelevant material. It may be formed from a sequential repetition or repetitions of the final phrase of the main body, or it may suggest itself as an extension of the final bars of the main body. It may also be constructed from a passage heard earlier: the introduction, an interlude, or some background phrase.

It may help to note that only rarely does a novice write too long a codetta. Rather, the error tends to be the use of too abrupt a close. The ending of any arrangement, like the beginning of it, is of major importance. Make sure that the codetta is long enough to perform its function adequately, logically, and musically.

XII. INCIDENTALS

A. Rhythm Patterns

The "Accompanied Melody" section of the text on Orchestration showed examples of repeated rhythmic figures, in ostinato fashion, used for background. This is always a very effective orchestration device. But in melodic variation, when a melody is being modified with rhythmic anticipations, etc., **avoid too frequent a use of any one syncopation pattern.** I once had occasion to criticize a score that used the rhythm pattern:  49 times in 3 choruses!

Needless to say, such repetition is monotonous and has a stifling effect on the all important "forward motion".

B. Economy

Be stingy with your notes; use as few as possible. When a score, or a passage in the score, is finished, review it with the idea of finding notes that can be eliminated. Styles and means differ, of course, and one score may require ten times as many notes as another. However, the point is to avoid using even one more note than is necessary for the achievement of the desired aim. The short note values present the greatest danger, so avoid overuse of the note value which is shortest in the passage.

C. The Instruments

It bears repeating that continuous effort should be made toward becoming familiar with the capabilities of each instrument in the orchestra. The best results will always be obtained when each instrument is treated idiomatically, and kept in its best register.

D. Rehearsal Markings

Be sure to mark your score, and the copied parts, with enough letters or numbers to make rehearsal easier. It is not out of order to use a letter or number every eight bars, and certainly they should appear every sixteen bars.

E. Abbreviations

The use of abbreviations such as:

Repeat 1 bar. Repeat 2 bars.

can save scoring time, and the "col" (meaning "with" or "same as") direction (e.g., "col Trpt. I", "col Alto", etc.) and the use of repeat signs:

are also time savers.

Further, the D.S. (Dal Segno) sign:  and the D.C. (Da Capo) can be helpful.

F. Dynamic Markings, etc.

Include all dynamic markings and any other necessary directions, and make sure that they are legible on the score, with respect to the part or parts to which they apply. In the copied parts, markings such as "p", "f", "<", etc., are placed under the line to which they refer. While a practicing musician should be acquainted with the traditional Italian words used to indicate tempos, styles, etc., there is no objection (at least in the popular and jazz idioms) to the use of the English language.

XIII. SCORING METHODS

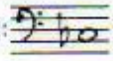
There is no one scoring method which is obligatory, nor is there really one which could be called standard. The examples in this book use a "concert" score, with each part written exactly where it sounds, with the exception of the bass and guitar which are written an octave above actual sound. This method is satisfactory.

However, many arrangers prefer to score each part in its own key. This has an advantage for the copyist (who then has simply to copy the parts as they are, without transposition) and for the conductor (who can remedy copying errors without having to transpose). This method takes a little getting used to, and creates an added burden for the beginning arranger. He may, of course, turn to it at a later time.

Certain compromises are sometimes used; for instance, scoring the saxophones an octave higher than they sound, in order to use only one clef, as:

ALTOS: This:  instead of: 

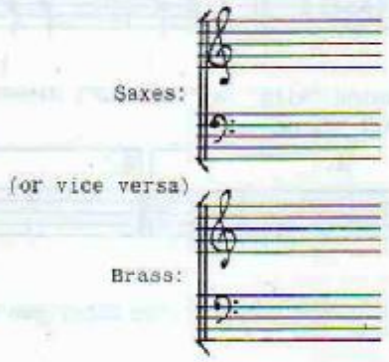
TENORS: This:  instead of: 

BARITONE: This:  (or even 16va higher: ) instead of: 

Such devices are *totally unimportant to the final result*. It is important only that the arranger be comfortable, and that the copyist's job does not become too complicated.

The order in which the instruments occur on the score is also variable. The examples in this text use the saxes at the top of the score, followed by the brass, then the rhythm instruments. But many arrangers prefer to place the brass at the top of the score, followed by the saxes. Again, this is a matter of individual preference.

Just how many lines to use in the score is another point which is not standardized. Some arrangers use "close" score, one treble and bass staff for the reeds, one for the brass, etc., as:



This is all right for a small band, but for a larger group it becomes too crowded, particularly if the writing is other than block *sectional* style.

The other extreme is the use of one separate line for each instrument. This is better than the close score, but with a large orchestra requires large score paper and tends to spread things out too far for quick calculation. The best answer is probably a compromise, which would combine two like instruments on one staff, as: both alto saxes together; both tenor together; baritone sax separate; 1st and 2nd trumpets together; 3rd and 4th trumpets together; (same for trombones) and each rhythm section instrument separate.

Finally, whatever scoring method is used, legibility is important! A conductor, a copyist, or an instructor, should not be expected to waste time with a score which is messy, illegible, and confusing. Cultivate the habit of writing clearly and neatly. Aside from the obvious advantages, such a habit may well have an influence on the quality of the music itself.

The use of a ballpoint, or pen and ink, instead of pencil is sometimes recommended. These are more legible, of course, and the supporters of this practice suggest that the arranger will be considerably more careful and thoughtful with the notes he puts down when he knows that they can not easily be erased. Whether pen or pencil is used, it is wise to keep a little manuscript on the side for working out problems before they are written on the actual score.

ASSIGNMENT 20

1. Examine carefully, and become thoroughly familiar with, all of the points and advice in "Some Further Considerations In Arranging". They may not all be valid all of the time, but they will all be valid some of the time.

2. Listen to recorded arrangements as much as possible, not only those of your own preference, but also good music of all styles. (In fact, every writer should make sure that some listening is part of his daily routine.) Listen for the "form" and the overall architecture.

3. Examine scores whenever and by whatever means possible, not only for all of the details of harmony, melody, rhythm, and orchestration, but also for the overall viewpoint and structure.

4. The basic principles of orchestration and arranging are constant, no matter what the style or the year. But at any given time there are always certain "popular" phrases, articulations, rhythms, etc., in commercial arranging. It is well to be familiar with these, particularly if you want your arrangements to be comfortable for, and immediately accepted by, the players and the listeners. (And it is well to be familiar with them, even if your intention is to avoid them!)

5. Take a couple of standard melodies and "plan" an arrangement or two (approximately three minutes) for each. This can be done by writing out a general blueprint or simply by trying to conceive and formulate the complete arrangement mentally. The importance of an overall plan - whether or not it is actually written out in blueprint form - cannot be overestimated!

6. Write a few arrangements of the same tune, in varying styles and tempos, for different instrumental combinations. (Pick a tune you like to start with because, even so, by the time you get to about the third arrangement you will likely never want to hear it again.)

7. Write! Write! Write! - and search out every possible means to hear your work performed. No matter how well prepared you are theoretically, the most important lessons come from hearing your notes, good and bad, coming back at you.

EPILOGUE

Music as we know it has existed for only a few hundred years, and the art of arranging, as we know it, for only a few decades. In the history of the world, this length of time is as a snap of the finger. The only element in music that is absolutely reliable is the construction of the harmonic overtone series; all else is man-made and is in a continuous process of change.

Be skeptical of anything in this book, or any other, and keep an open mind. Music, because it is always changing, is a never ending study. Yesterday's art is today's commercial music, and today's avante-garde is tomorrow's commonplace. While the mastery of the basic tools of your craft is essential, and the development of your ear even more essential, the ultimate requirement is a knowledge of yourself. Anyone who has gained control of the material in this book and in "Modern Harmonic Technique", volumes I and II, is prepared only to begin.

Someone has calculated that the *average* age when composers do their best work is 48. Also, it is significant that the arrangers who are presently the most respected are men who have reached maturity of age and experience without loss of the enquiring mind of youth.

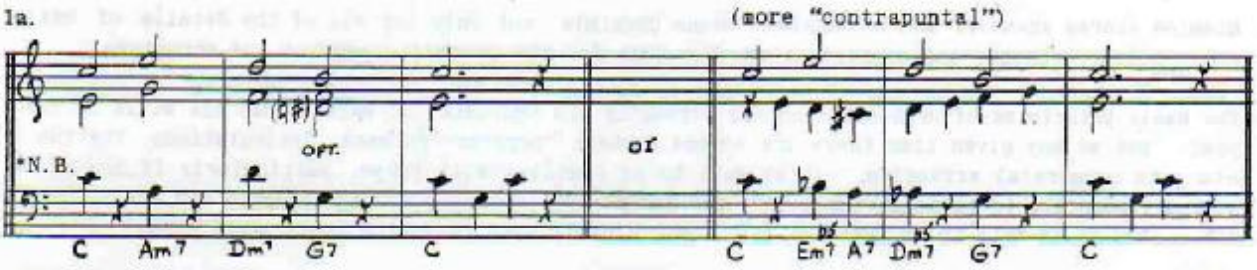
May you never reach a time when you feel that you know all of the answers.

SAMPLE SOLUTIONS TO THE ASSIGNMENT EXERCISES

(In no case is any solution to be regarded as the only or the best! Each is intended to be representative only.)

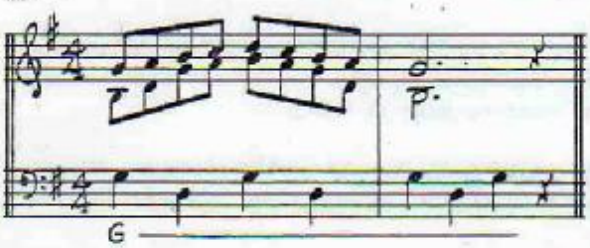
ASSIGNMENT 3

1a.

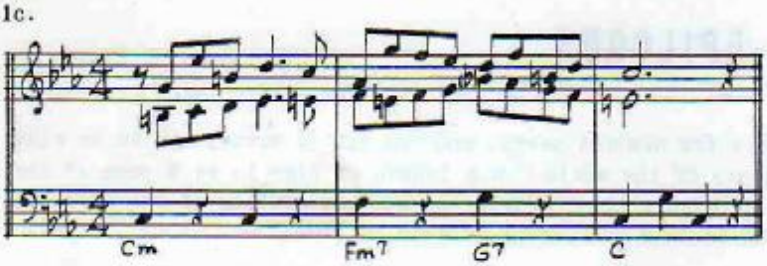


*String Bass in ALL examples is scored 8va higher than sound.

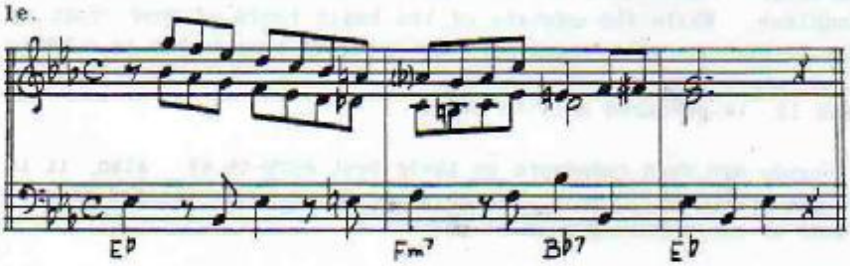
1b.



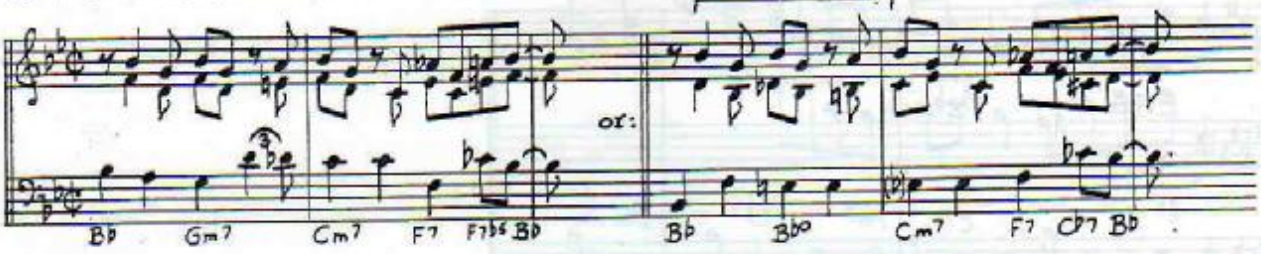
1c.



1e.

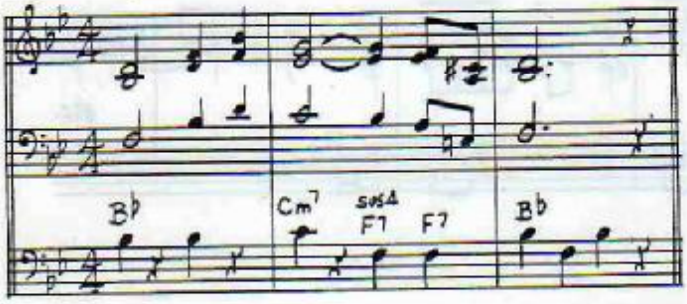


1g. (exploiting perfect 4ths) Asignment 3 (cont'd) (more conforming)

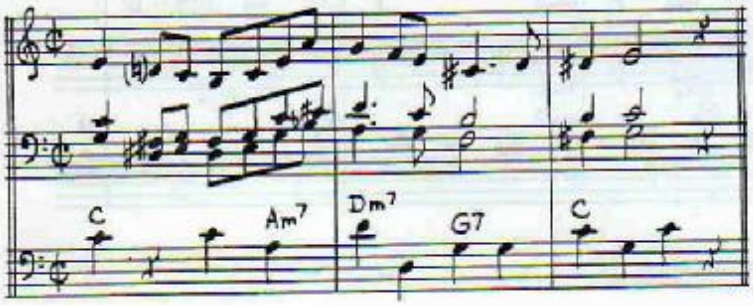


ASSIGNMENT 4

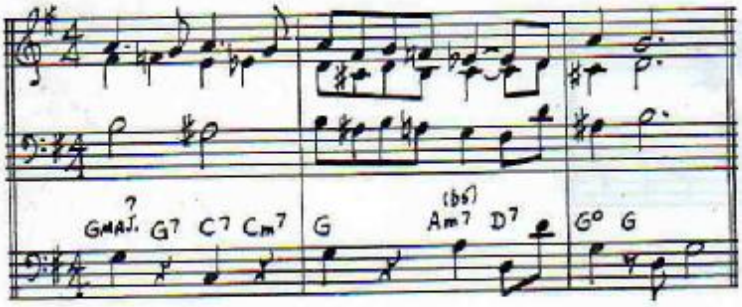
1a.



1b.

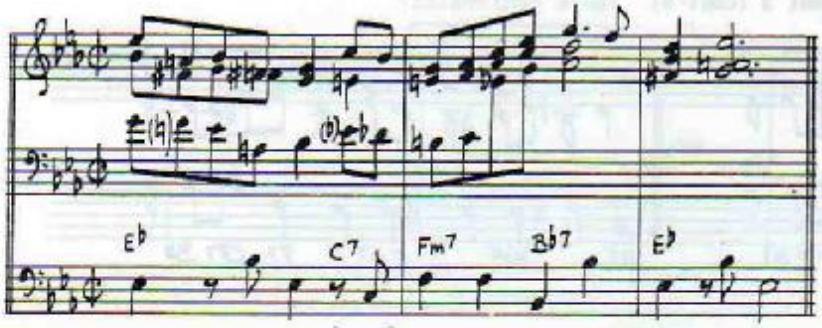


1c.

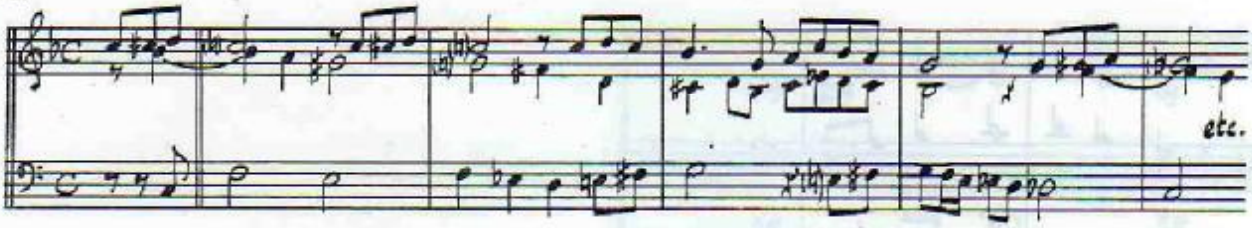


1d.

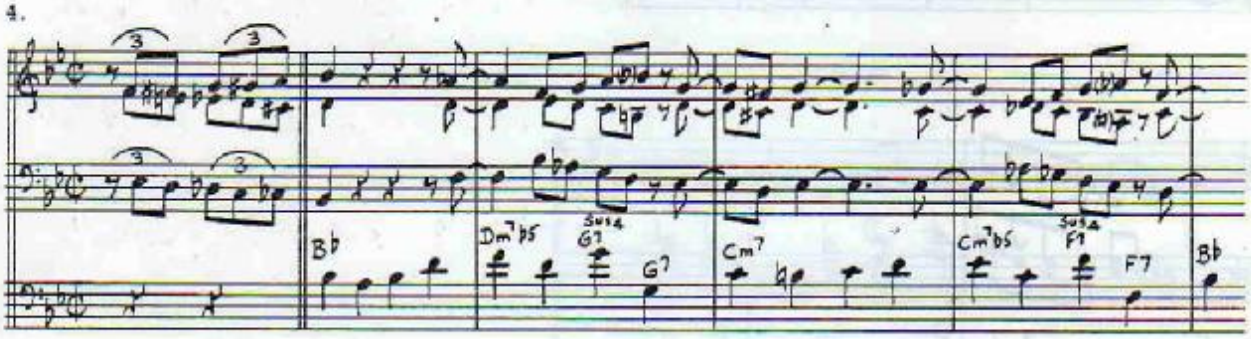
Assignment 4 (cont'd)



2.



4.

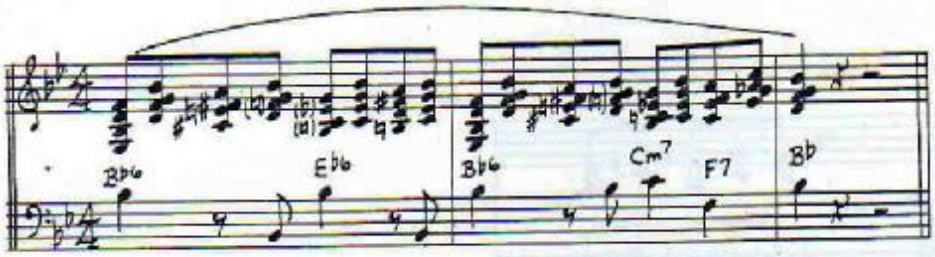


ASSIGNMENT 5

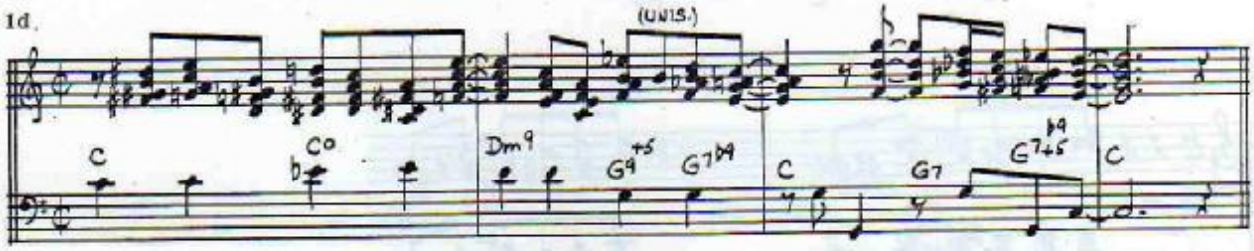
1a.

1b.

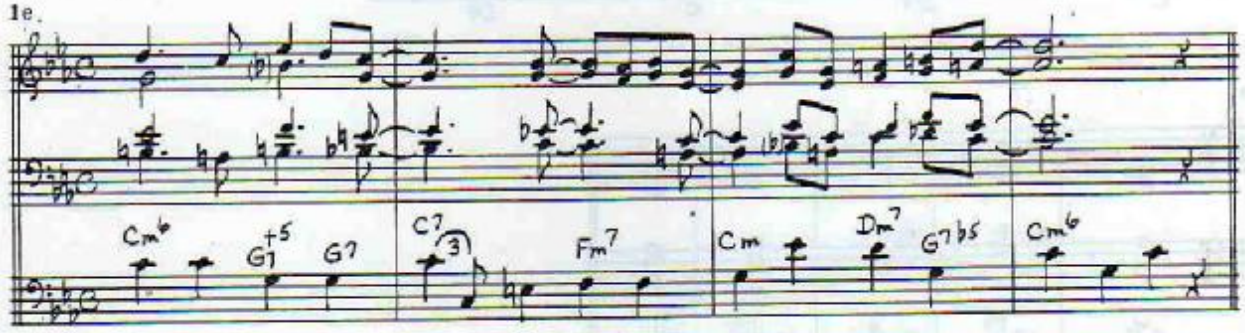
Assignment 5 (cont'd)



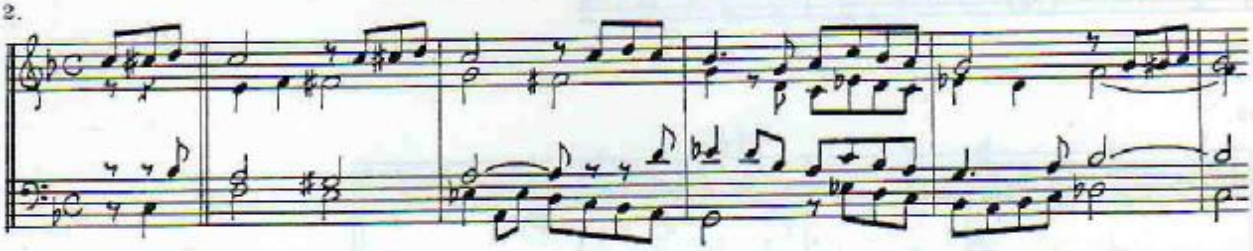
1d.



1e.

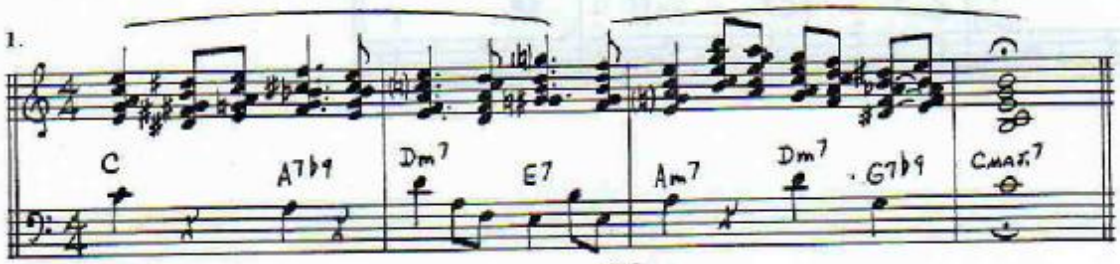


2.

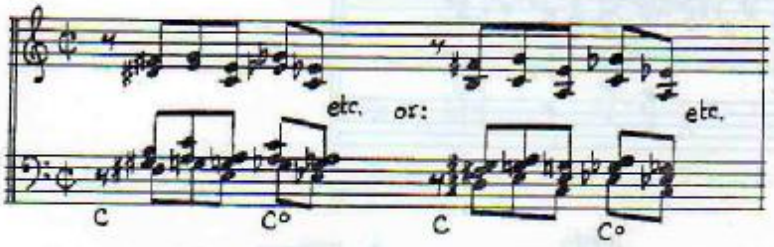


ASSIGNMENT 6

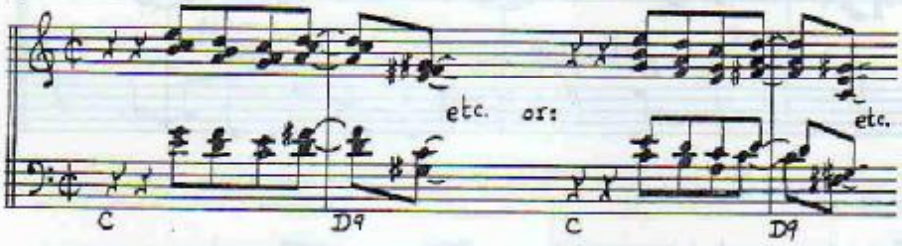
1.



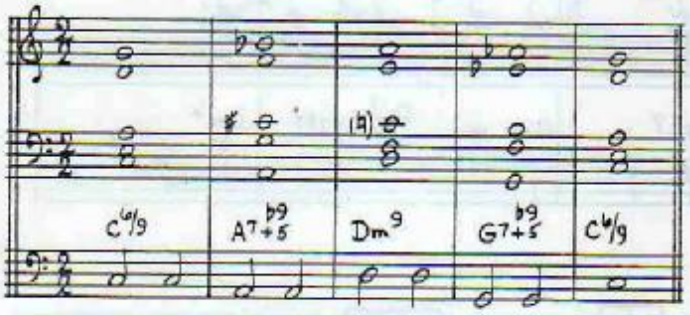
2.


etc.
or:
etc.
C
C°
C
C°

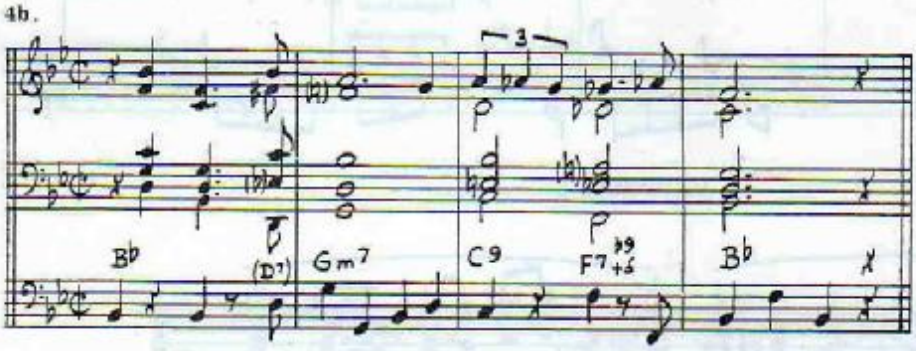
3.


etc.
or:
etc.
C
D9
C
D9

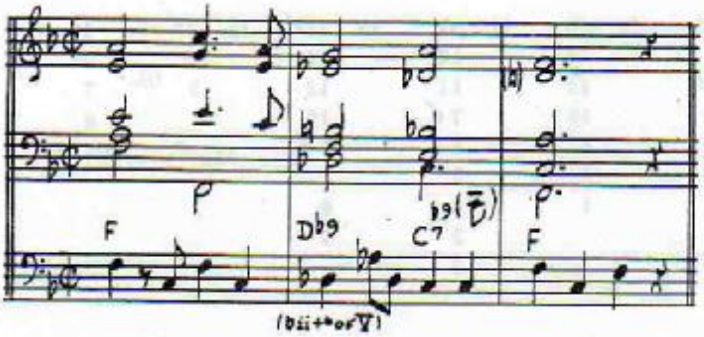
4a.


C6/9
A7+5 b9
Dm9
G7+5 b9
C6/9

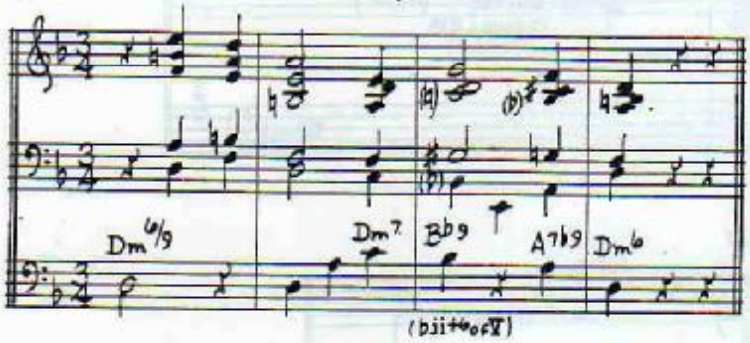
4b.


3
B♭
(D7)
Gm7
C9
F7+5 b9
B♭

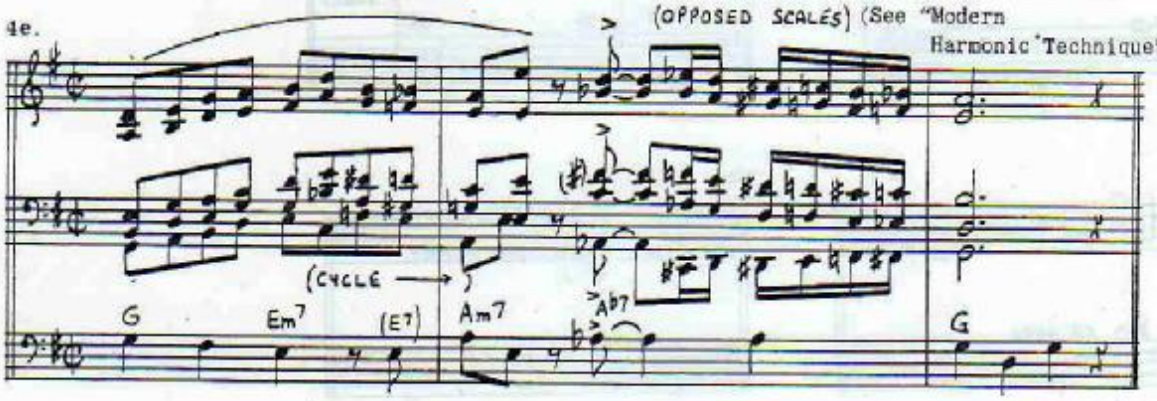
4c.


F
Db9
C7
F
(bii+6 of V)

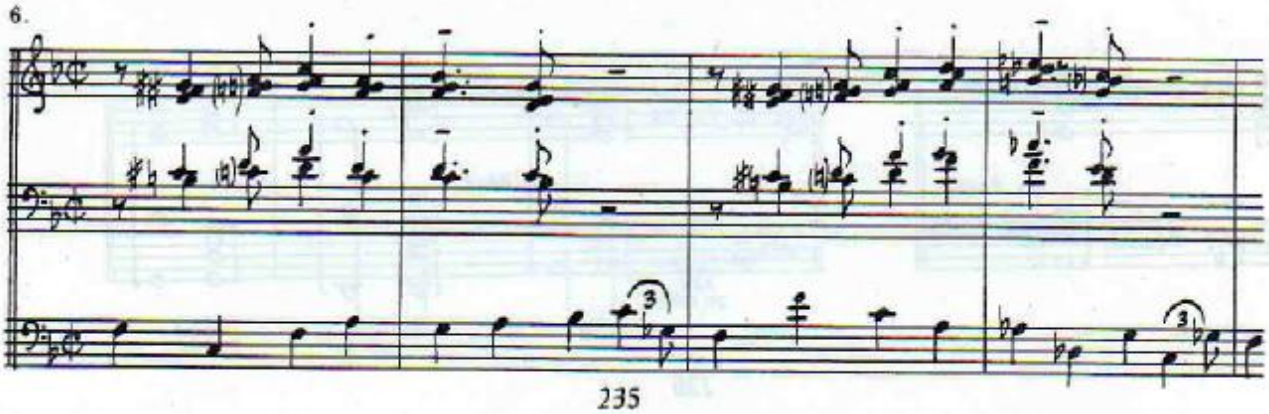
4d.


Dm6/9
Dm7
Bb9
A7b9
Dm6
(bii+6 of V)

4e.


(OPPOSED SCALES) (See "Modern Harmonic Technique")
(CYCLE →)
G
Em7
(E7)
Am7
Ab7
G

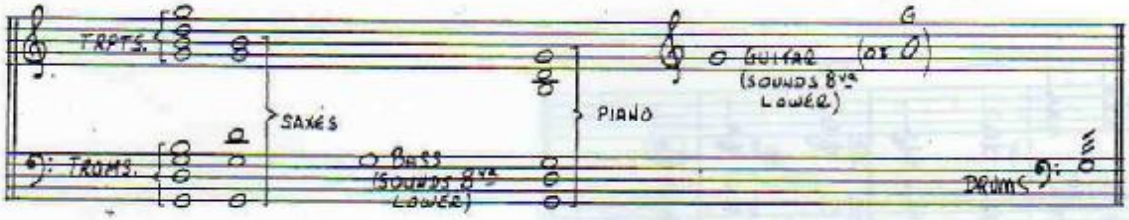
6.



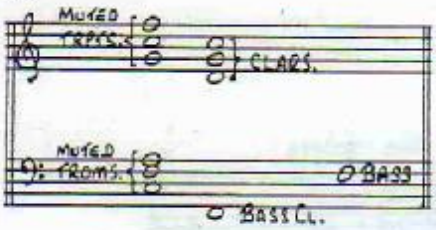
ASSIGNMENT 11

1a.	1b.	1d.	1e.	1g.	1i.	1l.	1n.	1p.		
8	8	12	14✓	12	18	18	18✓	7✓		10
6	7✓	10	12	9	14	13	14	6		9
5	6	9	10	7✓	11	11	12	5	OR:	7
4	5	7✓	8	5	10	7✓	10	4		6
3	4	6	7✓	4	8	6	9✓	(Gmi^{6})		(Emi$^{7\flat5}$)
2	3	5	6	3	6	5	7			
1	2	4	5	2	4	4	6			
	1	3	4			3	5			
		2	3			2				
			2							

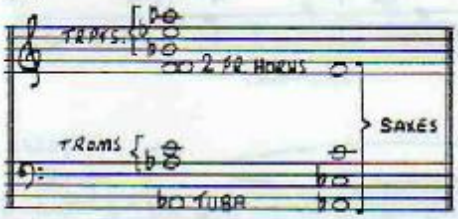
2a.



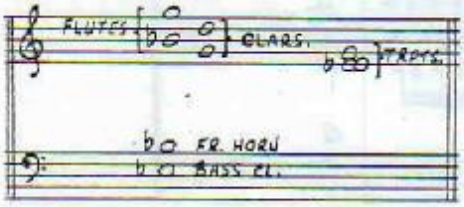
2c.



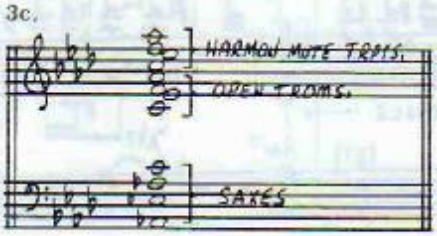
2d.



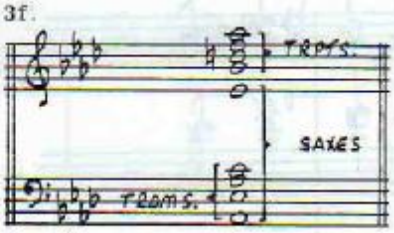
2f.



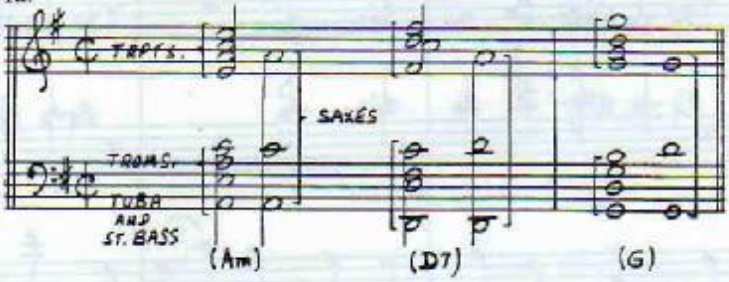
3c.



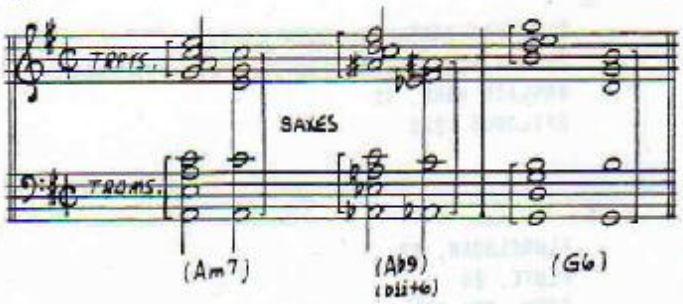
3f.



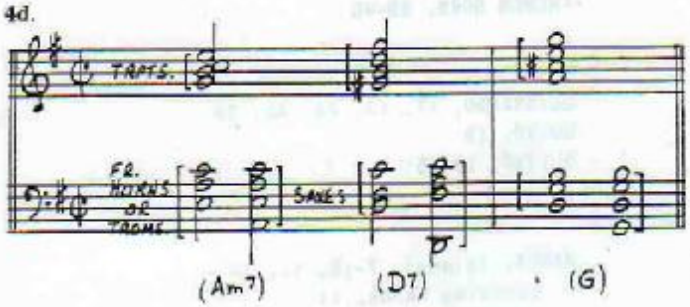
4a.



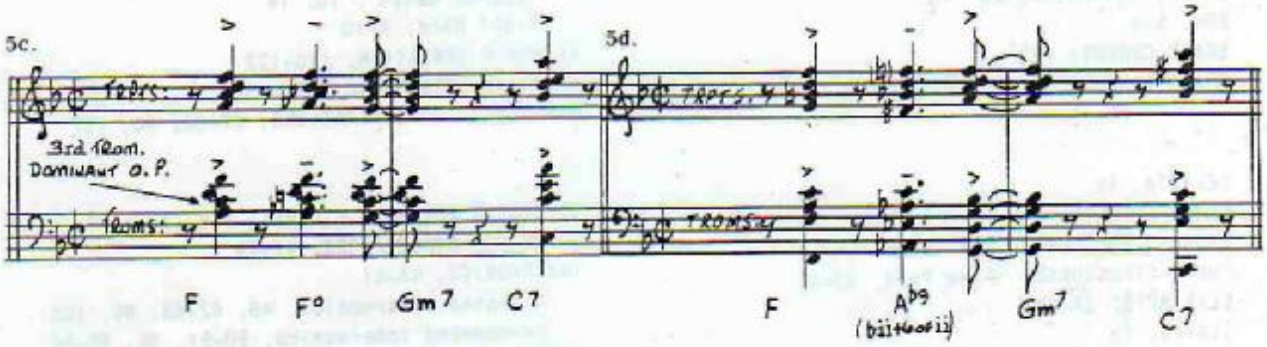
4b.


TRPTS.
SAXES
TROMS.
(Am7)
(A♭9)
(ditto)
(G6)

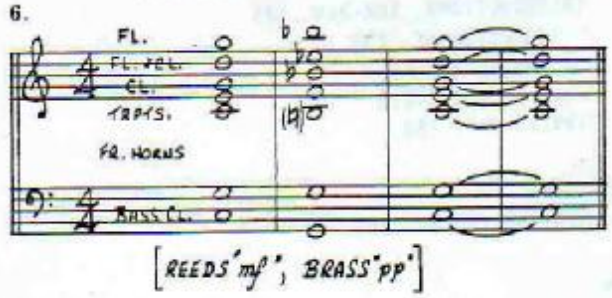
4d.


TRPTS.
FR. HORNS OR TROMS
SAXES
(Am7)
(D7)
(G)

5c.


TRPTS.
3rd TROM. DOMINANT O.P.
TROMS.
F
F°
Gm7
C7
5d.
TRPTS.
TROMS.
F
A♭9
(ditto ad lib.)
Gm7
C7

6.


FL.
FL. REL.
CL.
TRPTS.
FR. HORNS
BASS CL.
[REEDS 'mf', BRASS 'pp']

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