

Army Band Section Leader Handbook



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Headquarters, Department of the Army

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ARMY BAND SECTION LEADER HANDBOOK

TABLE OF CONTENTS

PREFACE iv

CHAPTER 1 MUSICAL INSTRUMENTS 1-1

BRASS GROUP..... 1-1

Trumpet 1-1

Euphonium/Baritone 1-2

French Horn 1-3

Trombone 1-4

Tuba 1-6

WOODWIND GROUP 1-9

Flute 1-9

Oboe.....1-10

Clarinet1-12

Bassoon.....1-13

Saxophone.....1-15

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RHYTHM GROUP	1-17
Percussion.....	1-17
Piano.....	1-17
Guitar/Electric Bass Guitar	1-20
CHAPTER 2 TRAINING AND LEADING THE SECTION	2-1
CONDUCT A SECTIONAL REHEARSAL.....	2-1
Pre-Rehearsal	2-1
<i>Forming Rehearsal Objectives</i>	<i>2-1</i>
<i>Planning Rehearsal.....</i>	<i>2-2</i>
Conducting the Rehearsal	2-2
<i>Listen and Analyze.....</i>	<i>2-3</i>
<i>Form Intermediate Objectives.....</i>	<i>2-3</i>
<i>Begin Problem Solving</i>	<i>2-3</i>
<i>Assign Individual Practice.....</i>	<i>2-4</i>
ORGANIZE THE SECTION	2-5
Appraisal Of Players.....	2-5
Technique	2-5
Endurance	2-6
Sight- Reading.....	2-6
Tone.....	2-6
Intonation	2-7
Personality Factors.....	2-7
Assigning Players.....	2-7
INDIVIDUAL PRACTICE.....	2-8
Maintenance Practice	2-8
Utility Practice	2-9
Developmental Practice	2-10
CHAPTER 3 TYPES OF BANDS AND PERSONNEL	3-1
TYPES OF BANDS	3-1
Special Bands	3-1
General Support Bands	3-2
Direct Support Bands.....	3-2
Army Reserve and National Guard Bands (RC) Bands	3-2
BAND OFFICERS.....	3-3
Warrant Officer Bandmasters	3-3
<i>Mandatory Prerequisites</i>	<i>3-3</i>
<i>Preferred Prerequisites.....</i>	<i>3-3</i>
<i>The Videotape Audition.....</i>	<i>3-3</i>
Army Band Officers.....	3-4
CHAPTER 4 TYPES OF ARMY BANDS SUPPORT.....	4-1
CEREMONIAL SUPPORT.....	4-1
CIVIC SUPPORT.....	4-1
RECRUITING SUPPORT.....	4-1
OTHER SUPPORT	4-1

CHAPTER 5 INTERNAL ORGANIZATION OF ARMY BANDS 5-1

ORGANIZATIONAL CHART 5-1

COMMON STAFF SECTIONS..... 5-2

Staff of a General Officer (G1-thru 5)..... 5-2

Administration (S-1) 5-2

Personnel Liaison..... 5-2

Publications 5-3

Operations (S2/3) 5-3

Training (S2/3) 5-3

Supply (S-4) 5-4

Maintenance..... 5-4

Library..... 5-4

Sound Reinforcement 5-4

ASSUMING AND PERFORMING SUPPORT FUNCTIONS 5-5

Learning by Apprenticeship 5-5

Individual Learning..... 5-5

GLOSSARY Glossary-1

REFERENCES..... References-1

RELATED PUBLICATIONSReferences-1

PROFESSIONAL REFERENCESReferences-2

INSTRUMENTAL WEBSITESReferences-14

PREFACE

This book is addressed to the Army band section leader and to the senior instrumentalist training to become a section leader. Its purpose is to provide information useful in your job. Developed by the U.S. Army Element, School of Music, chapter one contains information specifically for your instrument. For instrumental maintenance procedures, see the STP, Skills Level 1 and 2, for your instrument. The other chapters discuss information considered important by many successful band NCOs.

Of course, this training circular is not an end; it is a beginning. In all cases, it was designed to help you get a start in the right direction. In the reference section, many commercial texts and methods for each instrumental section are listed for you to use in the study of your instrument and in the leadership of your section. Obtain and use them. The other sections of the circular often refer to official and unofficial publications that you should find very helpful in your professional growth.

We want this book to be of service to you and to future section leaders. If you have ideas on improvements in content or form, please let us know. Your comments will be invaluable when further editions are published. Please address your remarks to: Commandant, U.S. Army Element, School of Music, ATTN: ATSG-SM-TD, Naval Amphibious Base (Little Creek), Norfolk, VA 23521.

Major Duties. *The brass, woodwind or percussion player supervises an instrumental section and plays a brass, woodwind, or percussion instrument as a musician in a military band. . . . Perform all applicable types of music on an instrument. Types of music include, but not limited to, the following: marching band, ceremonial band, concert band, jazz, ethnic, and popular music compositions. Perform on a musical instrument in a variety of ensembles, ranging from solo performance to full concert band. Provide technical guidance to lower ranking personnel. Organize, instruct, and train a section or consolidated section of related instrumentalists. Instruct section members in marching band movement. Supervise section operator maintenance. Counsel and evaluate section/squad members. Perform as Drum Major. Repair instruments. Serve as audio/recording operator or librarian.*

Extracted from DA PAM 611-21

CHAPTER 1

MUSICAL INSTRUMENTS

In order for any Army band section leader to function effectively, the history and evolution of musical instruments most commonly found in the Army band must be understood. Also, there are many different types of employment for the various instruments within a related group. Understanding this is particularly important as a Soldier progresses in rank and becomes responsible for a wider range of instrumentation, as is the case of group leaders.

BRASS GROUP

TRUMPET

History

The trumpet is probably the oldest of all brass instruments, being traceable to the ancient civilizations of the Middle East. Early Romans, Greeks, and Jews used it in their military and religious activities, and because of the awkward length, they folded the trumpet into an S-shape. This fourteenth century change made the instrument more compact. It acquired this traditional form (the folded trumpet of antiquity) and it had various names, bore sizes, and shapes. This stemmed from the availability of natural materials, such as animal horns, seashells, and other hollow objects. There was no distinction between conical and cylindrical forms. Lituus, buccina, cornu, shofar and tuba were common terms for trumpets prior to the eleventh century. By the eleventh century, the trumpet assumed the somewhat standard appearance of a long, slim, cylindrical tube with a conically flared bell. This instrument was the clarion.

The professional trumpet organizations (guilds) responsible for developing the virtuoso skills of the baroque trumpeters bore a large part of the responsibility for the decline of trumpet playing during the classical and early romantic periods. The guilds employed rigid controls in an attempt to keep their methods a secret. Other developments also contributed to the diminished use of the trumpet.

The trumpet was not capable of producing a complete chromatic scale until Bluehmel and Staelzel of Germany invented the rotary valve in 1815. In 1839, a Parisian by the name of Parinet developed the piston valve, which, with minor changes, is the valve universally in use today.

Current Uses

CONCERT BAND

Concert bands divide the cornet/trumpet section into three cornet parts and two trumpet parts. Some bands use both cornets and trumpets based on supposed tone quality differences; however, most concert bands use *B-flat* trumpets on all parts. In many cases, players will double these parts.

MARCHING BAND

The marching band uses the *B-flat* trumpet almost exclusively because of its brighter, more brilliant tone quality. Additional instruments of the trumpet family found in marching bands are herald trumpets, *E-flat* soprano trumpet, and *B-flat* piccolo trumpets. All parts are doubled.

ORCHESTRA (Symphony/Theater)

Orchestral trumpet sections use only one person per part. The number of parts may vary from one to four, with two or three parts being the norm. The *C* trumpet has become the standard instrument for orchestral work. However, composers often write parts for trumpets pitched in *A*, *B-flat*, *C*, *D*, *E-flat* and *F*. Many professional performers own most of these instruments as part of their equipment or transpose

parts on the C trumpet. Many players use the *B-flat* and *D* trumpets to cover the majority of parts, and transpose when necessary.

DANCE BAND (Studio/Lab)

The *B-flat* trumpet is the standard instrument for the dance/stage band and combo/show band. Sections vary from three to five parts, with only one player per part. The flugelhorn is also a necessary part of the trumpeter's equipment because of its mellow, lyrical quality.

EUPHONIUM/BARITONE

History

The baritone horn and euphonium date from the metal horns of the Roman Empire. The chief Roman horn was a large conical bore instrument, and all conical bore instruments are among its descendants.

Until the ninth century, composers wrote bass parts for the *Russian bassoon*, the *bombardon* (the predecessor of the *E-flat* tuba), the *serpent*, and the more successful *ophicleide*. None of these instruments became popular in Europe, however, because they could not play chromatic scales, and were not powerful enough to be heard well.

Adolphe Sax invented the baritone in the early 1840's as a member of the saxhorn family. Saxhorns were piston-valve instruments played with their bells facing backwards. The Soldiers marching behind could easily hear these instruments. The baritone's medium bore, bright and centered sound, power, and flexibility made it a popular replacement for the ophicleide. It generally played high, ornamental lines.

At the same time, Richard Wagner wrote *The Ring cycle*, a series of four operas, introducing the *B-flat* 'Wagner' tuba (the predecessor of the modern euphonium). This instrument was also powerful and flexible enough to replace the ophicleide. Its large bore and dark, mellow sound made it ideal for lower obligato lines.

Nineteenth century American instrumentalists modified the baritone horn and euphonium. The front-facing bell, front-action valves, and the double-bell euphonium were all American innovations.

The double-bell euphonium combined characteristics of two instruments into one. It had an additional valve that directed the vibrating air column through a separate length of tubing to exit from a smaller bell on the left side of the instrument. This side produced a sound similar to the trombone. This instrument lost its popularity in the early twentieth century.

In America, the modifications and experiments on the baritone horn and euphonium covered the differences between the two instruments and the two instruments became one. This new instrument was a hybrid with a medium-sized bore.

Current Uses

Some composers still write traditional baritone horn parts for band, but low obligato writing is more common and closer to traditional euphonium literature. However, players are expected to perform both types of scoring on the same instrument.

In America today, high school, college, and military bands are the primary users of the baritone horn. It is also used as a solo instrument, in brass ensembles, and infrequently as an orchestral instrument, usually transposing the C tenor tuba part.

FRENCH HORN

History

For centuries, early musicians used animal horns as instruments before the Egyptians fashioned the first metal horns. Since that time, horns followed the technological development of mankind, making truly great strides only during the last few hundred years.

The modern horn developed in four stages. The first was the natural horn. Natural horns were large instruments worn over the shoulder. Used originally in early German orchestras, these horns were called *Jagdhorns*.

The second stage occurred with the addition of crooks. Crooks (slides of different lengths) enabled the horn to play many more notes and in many different keys. This new horn, called the *waldhorn*, used extensive hand movement in and out of the bell (hand stopping), making it very useful to classical composers.

The third stage was the invention of the valve in 1815. Perfected in 1850, valves changed the entire character of the horn, making the horn as flexible as other orchestral instruments. The valve gave the horn complete chromatic abilities without the change of crooks or hand stopping. With this new horn, composers began writing horn literature that was previously impossible. In many cases, however, composers demanded a high range on the instrument, which was difficult to perform on the low *F* horn because of the close upper partials.

The fourth stage solved this problem. The development of the *B-flat* horn facilitated high range performance. Joining these horns through one bell created the present day double horn in *F* and *B-flat*.

Current Uses

Early brass bands used horns pitched in *E-flat* called alto horns and some also used the mellophone pitched in *E-flat*. Today's military bands use the double horn exclusively, while some large marching bands still use the *E-flat* alto horn.

Marching bands use horns in a secondary role. Their high placement in the overtone series limits their melodic use on the march. For marching band literature, horns usually play after-beats or double the second and third cornets.

Modern concert band composers score horns equally with other instruments and horns have a solo repertoire of orchestral transcriptions and pieces written for horn with band accompaniment. Horn quartets and trios with band accompaniment are a commonly used configuration, as well. The application of the horn to jazz and modern big band is limited but many arrangers write most effectively in this area.

TROMBONE

History

The known history of the trombone is very long but essentially simple. This instrument changed less in principle in the past five centuries than any other member of the wind family. Listing the trombone's predecessors best describes its evolution.

SLIDE TRUMPET

The slide trumpet was the first wind instrument to use the principle of altering pitch by lengthening the tubing. The date of its first appearance is uncertain, though it may have been as early as the fourteenth century, when the Spanish term *sacabuche* (literally *drawpipe*) was in use.

By the end of the middle ages, the *buisine* (medieval straight trumpet) lengthened and achieved a flattened S-shape. The cylindrical tubing made a telescopic mouthpiece possible and the player could slide the whole instrument in and out along the mouthpiece with one hand while steadying the mouthpiece against the lips with the other.

This instrument was very awkward. Since the mouthpiece was a single tube, the movement to achieve change of pitch was double that required on the modern trombone. This bulky, movable section (all but the mouthpiece and mouthpipe) added to the difficulty. These reasons restricted the instrument to slow-moving parts. However, the slide trumpet was a milestone in the history of brass instruments because it was the first one capable of producing chromatic pitches without change in tone quality caused by finger holes.

The *sackbut* largely superseded the slide trumpet in the early sixteenth century, but use of the slide trumpet continued in some degree (at least in Germany) well into the eighteenth century. The *tromba da tirarsi*, specified by Bach in seven of his cantatas, was a type of slide trumpet.

TENOR TROMBONE (F Attachment)

Added tubing on the bell section, connected by a rotary valve, improved technical facility in the bottom octave of the tenor trombone. When actuated, this valve pitches the trombone in *F*. This gives the player alternate slide positions and enables the trombonist to play passages in the low register with much greater ease. The *F* attachment is available on virtually all sizes of tenor trombone.

The bottom range is, of course, also extended lower. However, because of bore-length ratio, this "bass trombone" register is best left to the instrument built for it. The tenor trombone with *F* attachment is, at best, a poor substitute for a true bass trombone.

BASS TROMBONE

Originally developed from the larger sackbuts, the bass trombone started as a longer version of the tenor trombone. It was made in various keys, but for the most part, was a single instrument pitched in *F*, a perfect fourth below the tenor trombone. The current single-valve bass trombone is a *B-flat* instrument identical to the tenor with *F* attachment, except for a larger bore (.56 to .57 inches) and bell (9.5 to 10.5 inches).

Pitch adjustment, via lengthening the slide tubing, is a function of the percentage of total length. In order to lower the pitch by a half step, it is necessary to add slightly more than five percent to the total length. For example, on tenor trombone, this means that first and second positions are almost half an inch closer together than sixth and seventh positions.

On the *F* side of the bass trombone, this percentage factor increases the distance between positions so much that there are effectively only six positions. That sixth position is farther out on the slide than the seventh position on the *B-flat* side. Therefore, the *B-flat-F* trombone is not capable of playing chromatically down to the pedal register. The low *B* cannot be produced. To overcome this problem, the *F* attachment tuning slide can be lengthened enough to pitch the instrument in *E* when pulled out (known

as the *E-pull*). This, of course, changes positions for all notes on that side of the instrument. With the double-valve bass trombone, this situation is corrected. The second valve enables the player to pitch the instrument in *E*. This gives the player added facility, especially in the lower register.

Today, more and more bass trombone players switch to the *D* crook for the second valve. This allows them to play low *C* and *B* without an uncomfortably long slide extension. Any double-valve bass trombone can be converted to this system by the addition of *D* crook on the tuning slide of the *E* tubing.

Current Uses

CONCERT BAND

Most concert band arrangements use three trombone parts: two tenors and one bass. However, four trombone parts are not uncommon in concert band, particularly in music composed specifically for band. Most contemporary composers expect most bands to have a bass trombone.

MARCHING BAND

The trombone section plays countermelodies and rhythmic accompaniment and reinforces the upper brass in *tutti* passages. When not playing along with the first and second parts, the third trombone reinforces the tuba. With a few exceptions, all three parts can be played on tenor trombone. However, when available, the bass trombone lends additional power and a better low-register tone quality to the third part.

ORCHESTRA

Orchestras normally have three trombone parts and they are not usually doubled. The orchestral trombone player, being alone on a part, must possess a very large dynamic range and a full, powerful tone. Large-bore instruments are the norm. The first trombone player often plays parts originally written for alto trombone; therefore, the player must have a dependable upper range extending to *F*, six lines above bass clef. Knowledge of both tenor and alto clef is a requirement.

STAGE BAND (Studio/Lab)

Today's arrangements use four trombones with the bass trombone on the fourth part. Trombones sometimes function as an independent section and sometimes as the base of the brass section. The fourth (bass) trombone frequently plays independently of the rest of the section and reinforces the baritone saxophone part.

TUBA

History

The present day tuba family is the artistic successor of the *serpent*, *ophicleide*, and *Russian bassoon*. The tone produced by the serpent and ophicleide was poor and intonation was equally unsatisfactory. Many composers, including Handel and Mendelssohn, wrote large instrumental works with the serpent or the ophicleide as the bass voice of the wind ensemble. Modern orchestral tuba players occasionally find parts written for these instruments. Both the serpent and the ophicleide differed greatly from our present day tubas, except for their cup mouthpieces. Both usually required a higher playing range than today's tuba range.

The tuba is the result of many experiments in the 1820's and 1830's. Musicians at that time felt the need for a brass instrument to replace the serpent and ophicleide. In the early 1820's Stolzel of Berlin, co-pioneer of the valve system, issued a line of '*Ichormatic brass instruments of my own invention*' that included a bass trumpet in *F* or *E-flat* and a tenor trumpet in *B-flat*. These may be regarded as prototypes of the tuba.

In the early 1830's, a tuba in modern shape appeared. Working with Berlin instrument makers Greissling and Schott, Wilhelm Wieprecht introduced a bass tuba in *F*. He and another Berlin maker by the name of Moritz jointly patented it. This instrument was first used in Prussian military bands in 1838. Because of its poor tone quality, this instrument did not succeed.

Many countries worked to further the development of the tuba. A Russian inventor coiled the instrument so a player might rest its weight on his shoulders. This circular, or *helicon*, bass preceded our modern sousaphone.

Adolphe Sax, a Belgian instrument maker, returned the tuba to an upright form in 1843. Sax combined the cornet, Flugelhorn, baritone, euphonium, and tuba into one family called saxhorns. Czerveny of Bohemia developed the fourth valve for the tuba in 1843.

Berlioz's treatise on orchestration, 1843, was one of the first literary works to recognize the tuba. He mentions a bass tuba in *F*, a type of bombardon (the mechanism of which had been improved by W.F. Wieprecht, master of the King of Prussia's military bands). He praised its sound as "incomparably more noble than that of ophicleides, serpents, and bombardons." Berlioz's *Symphonie Fantastique*, 1830, used an ophicleide but in preparing a copy for a German edition in the early 1850's, he added a footnote that authorized the substitution of an *F* tuba.

Gradually, the tuba came into common use. Although two early instances were an overture by Otto Bach in 1858 and Wallace's 1862 opera, *Love's Triumph*, it was Richard Wagner's use of the tuba that established its solid position. He was the first to fully exploit the instrument's advantages and abilities. He wrote for a variety of tubas, ranging from the large contrabass to the very small French model, which is still used in France today. The Wagnerian tuba resulted from his desire to employ a new tone color in his operas, *The Ring of the Nibelungs*. This instrument resembled a cross between a French horn and a modern CC tuba. Later, Anton Bruckner and Richard Strauss wrote for Wagnerian tubas.

From 1869 and the first performance of *The Ring*, members of the tuba family took their place as standard members of larger orchestras. Wagner made the tuba an important part of his compositions, even allowing it to perform an unusual trill in his overture to *Die Meistersinger*. One of the trickiest of all tuba parts occurs in Strauss' symphonic poem *Don Quixote*, in which the tuba must play many solos that represent Sancho Panza, the Don's squire and companion.

The increased symphonic use of the tuba in the works of Berlioz, Bruckner, Wagner, Brahms, Mahler, and Richard Strauss demonstrates that the tuba gained acceptance as an orchestral instrument in the middle to late nineteenth century. In band transcriptions of orchestral works, the tuba almost always plays the part originally intended for string bass.

The tuba first appeared in American dance bands around 1915. It gained prominence as the bass until around 1925, when the string bass replaced it. In some big bands during the 1930's and 1940's, the tuba occasionally performed the bass parts of open-voiced brass harmonies.

Types and Current Uses

The modern tuba player may choose from many different types and pitches of tubas. The available instruments are pitched in:

- Nine-foot *B-flat*.
- Twelve-foot *F*.
- Fourteen-foot *E-flat*.
- Sixteen-foot *CC*.
- Eighteen to twenty-foot *BB-flat*.

Tubas are constructed with a widely conical bore, except for the cylindrical valve system. The very wide bells and large, deep-cup mouthpieces facilitate sounding low notes, including pedal tones, easily.

Rotary or piston valves are used, according to personal choice. The valve system is the regular three-valve system, with the option of a fourth, fifth, or even sixth valve.

The fourth valve lowers the pitch a perfect fourth. Pitch problems arising when the third valve is used in combination with the first and second are more serious on larger, lower-pitched instruments than on smaller, higher-pitched instruments. The fourth valve slide allows the pitch to be lowered a perfect fourth so it is a good substitute for the first and third valve combination and corrects the sharpness of the pitch. It also makes awkward fingerings easier.

While it is true that the fourth valve extends the range of the instrument downward, the notes produced by combining the fourth valve with other valves are progressively sharper. This is true unless the instrument has an automatic mechanism for lengthening the valve tubing. By the time the *BB-natural* is reached, the accumulated discrepancy in valve tube lengths amounts to more than a half step in pitch.

TENOR TUBA (B-flat)

The tenor tuba in *B-flat* is the smallest tuba in common use today. Other names are *tuba basse*, *tuba ordinaire* (French), *tuba bassa*, *flicorno basso* (Italian), and *basstuba*, *tenortuba* (German). It usually has four valves, sometimes five. Its nine-foot tube length is identical with that of the tenor trombone and the baritone horn, but the bore of the tuba is much wider, lowering its natural range.

F TUBA

Orchestras of the United States only occasionally use the *F* tuba. However, European symphony orchestras use the *F* tuba almost exclusively. All of Wagner's operas, except the four operas in his *Ring Cycle*, were scored for this instrument. The *F* tuba (with four, five, or six valves) is quite capable of playing down to its fundamental at high volumes and has the advantage of much greater reliability in the upper register. Because the *F* tuba projects a compact sound, small ensembles, especially the brass quintet, frequently use it.

E-FLAT TUBA

The *E-flat* tuba has a slightly heavier tone than the *F* tuba and has a slight advantage when playing low notes. Bands at the turn of the century primarily used this instrument until the mid 1950's. English brass bands frequently use it today but it is rarely found in American bands, except for the occasional Salvation Army band.

CC TUBA

The *CC* tuba is the tuba most commonly used by orchestral players. With its four or five valves, this instrument performs quite comfortably in all registers and can create the various colors required by composers and conductors of different styles. For a small wind ensemble, the *CC* tuba provides a clean, crisp bass with rich sonorities. This instrument is frequently found in small ensembles but is not out of place in a large wind band in conjunction with one or more *BB-flat* tubas.

BB-FLAT TUBA

The *BB-flat* tuba is the lowest pitched member of the tuba family and is most frequently found in the band. The extremely heavy sound of this tuba makes it somewhat unwieldy for orchestral use. However, it is not altogether foreign to the orchestra. For example, in one composition, Prokofiev wrote a low *D* for tuba, five ledger lines below the bass staff. Richard Wagner opens *Das Rheingold* with 92 measures of sustained low *E-flat*, five spaces below the bass staff.

SOUSAPHONE

The sousaphone is normally pitched in *BB-flat* and is used predominantly in the marching band. Because of intonation problems, the sousaphone should not be used in a concert band situation, unless this is unavoidable.

WOODWIND GROUP

FLUTE

History

A prehistoric slate dating to 4000 B.C. found in Hierakonpolis, Turkey, contains the earliest known reference to the flute. Around 2200 B.C., the flute held an important place in court and religious functions throughout the Egyptian empire. A double-pipe flute with three finger holes in each pipe became popular around 1300 B.C.

The flute enjoyed widespread popularity in Egypt, Israel, Mexico, South America, and many other parts of the world. The instruments were made of wood, reeds, or clay and usually played vertically. While vertical flutes were the most common form of the instrument, Japanese players used transverse flutes as early as 50 B.C. By 79 A.D., the flute progressed to a fifteen-hole instrument, fitted with silver bands that slid or twisted to cover the holes not being used.

The first key, *D-sharp*, was added in 1600. Around 1680 the bore changed from a cylindrical shape to a conical shape in order to produce a smoother tone. In 1724, the round embouchure hole was changed to an oval hole. The early 1800's saw the side holes moved to improve the acoustical properties of the instrument.

In 1832 Boehm developed a ring-key flute, and in 1847 he returned the bore to a cylindrical shape. This change made the pitch more accurate, but destroyed the smooth, sweet timbre of the conical bore flute.

The flute most commonly used in America is a version of the Boehm flute. It is made of metal or wood and is found in almost every band and orchestra.

Types and Current Uses

C PICCOLO

Most bands and orchestras today use the *C* piccolo. Because of its tone, many players prefer the wooden piccolo rather than the metal instrument for orchestral performance. They claim that the metal piccolo has the tendency to sound thin, shrill, or tinny, while a wooden one has a more sonorous tone.

D-FLAT PICCOLO

Older march music transcriptions use the *D-flat* piccolo. It is virtually obsolete today and primarily used only to simplify key signatures.

E-FLAT FLUTE

Bands rarely use the *E-flat* flute today. However, it is sometimes found in flute ensembles.

C FLUTE

The *C* flute is the most common one found today and is used in jazz, band, and orchestra work.

ALTO FLUTE

The alto flute, pitched in *G*, is seldom used in band or orchestra work, although ensembles or studios use it occasionally.

BASS FLUTE

The bass flute, like the alto flute, is seldom used in band or orchestra work. It is occasionally scored for television and movie soundtracks.

OBOE

History

As one of the oldest woodwind instruments, the oboe dates back to an ancient Greek instrument called the *aulos*, a short pipe with six finger holes and a double reed. Because specialized writing and actual instruments have not survived, we gather the evidence of their existence from pictures, literature, and sculpture.

We do know that double reed instruments became highly developed during the sixteenth and seventeenth centuries, as several specimens are available. One of these was the *shawm*. Although not a direct forefather of the oboe as we know it, the shawm greatly influenced its development. Turkish crusaders brought the *shawm* to Europe during the Middle Ages. While other forms of double reeds existed, none achieved its development or widespread acceptance. This Eastern *shawm*, or *Zurich*, was widely used with trumpets and drums in the later Crusades.

While all *shawms* used a double reed, some had cylindrical bores and others had conical bores, with proportionately pronounced flairs. They varied in length from forty-nine to seventy-nine centimeters and were commonly stopped with six finger holes. The stretch of the player's hands limited instrument length to seventy-nine centimeters. The playing range was one octave.

The technique for playing the Eastern *shawm* involved inserting the entire reed into the mouth. This method resulted in a very loud, coarse tone and later European demands for more refined playing established the *lipped* reed. Lipped reeds allowed players to maintain much greater control of the sound and volume. The *shawms* in both forms, lipped and enclosed reed, became popular in military bands by the middle of the thirteenth century.

This instrument developed along with European music. For about 7 years (1650-1657) French instrument makers experimented and developed instruments of the court. The court of Louis XIV (1642-1715) had an elaborate musical organization with chamber groups, court music groups, and a large military band and only the finest musicians were employed. From these, Jean Baptiste Lully, chief court musician and composer, obtained performers for his works. In 1671 the oboe received its first exposure in orchestral score by the composer Cambert for his opera, *Pomone*.

By the eighteenth century, the two-octave oboe passed beyond its experimental stage in France and became known as *hautbois* (high wood). For some 90 years, the oboe existed without appreciable improvements, except for the addition of some simple key mechanisms. The same basic instrument was found in the orchestras of Bach, Handel, Haydn, Mozart, and the early works of Beethoven.

As with most woodwinds of the period, the oboe was impractical in key signatures exceeding three sharps or three flats. Prior to 1750, oboes were made with three keys to facilitate fingering. However, it was not specified which hand should be placed at the top of the instrument. Oddly, most instruments manufactured after 1750 had only two keys. This resulted from players placing the left hand over the right, making one of the keys obsolete.

Nineteenth century progress concentrated on key mechanism development. The speaker key was perhaps the most noteworthy innovation. A more complex oboe (circa 1825) had a speaker key plus 15 holes. Additionally, a long shaft mechanism afforded players a low *B-flat*. An oboist named Josef Sellner made further mechanism improvements between 1811 and 1817. These changes became a standard part of the instrument in 1825.

Henri Brod (1799-1839), a student at the Paris Conservatory and second oboist of the Paris Opera, was the first to experiment with an instrument of much narrower bore dimensions and a more sophisticated key mechanism. He is also credited with perfecting the half-hole oboe technique.

The firm *Triebert and Sons* (founded in 1810) refined the oboe and its tone considerably. Many changes in bore dimension, size and location of tone holes and the use of Boehm axles were the most significant

improvements. The axles replaced the previously used levers, improving technical response. It is interesting to know that the house of Gautrot purchased the Triebert firm in 1881. Gautrot's foreman was Francois Loree. Upon Gautrot's death, Loree was able to secure contracts with the National Schools of Music and the Paris Conservatory, thereby establishing his own manufacture.

The eminent oboist and teacher at the Paris Conservatory, George Gillet, influenced Loree's work greatly. Upon Gillet's recommendation, covered finger holes rather than rings were added and the thumb plate eliminated. The first fingers of the right hand were used in combination to play *C* and *B-flat*. This design was so successful that it became known as the *Gillet Model* and was adopted by Paris Conservatory in 1882. After perfection in 1906, it became known as the *Conservatory Model* and remains the standard design all oboe manufacturers today.

Appolon-Marie Rose Barret, oboist of the Covent Garden, further developed the sophistication of Triebert designs. His experiments included adding a thumb plate for *B-flat* and *C-flat* and eliminating the half-hole. Both innovations became obsolete, but improvements in bore design and Barret's preference for rosewood helped to establish a more refined concept of tone. Other Barret contributions included a more complete system of trill and alternate keys.

Types and Current Uses

OBOE

The oboe is a member of the woodwind family. Its timbre not only lends a uniqueness to the overall sound of the ensemble but also is most expressive with solos. Bands and orchestras utilize oboes, usually paired with an English horn. It is a standard member of woodwind quintet instrumentation. Mozart emphasized the oboe by using it in a quartet for oboes and strings, the *Sinfonia Concertant*, and the piano quintet. Several of Mozart's symphonies use oboe instead of flute as the soprano wind.

OBOE D'AMORE

Resembling the English horn, the oboe d'amore uses a bocal (crook) and has a pear-shaped bell (Liebesfuss). It is the alto voice of the oboe family because it is pitched in *A* and falls between the oboe and English horn in size.

Literature for the oboe d'amore is somewhat scarce. J.S. Bach used the d'amore in his *Christmas Oratorio* and *St. Matthew Passion*. Other works for oboe d'amore include *Sinfonia Domestica* by Richard Strauss, *Gigues* by Debussy, and *Bolero* by Ravel.

ENGLISH HORN

The English horn is the most popular of the larger oboes. Bands and orchestras use it widely. Solos are also available, such as the *Swan of Tuonela* by Jean Sibelius and *Sonata for English Horn* by Paul Hindemith. The English horn uses a bocal and Liebesfuss. The *oboe da caccia* is a forerunner of the English horn, and any literature so indicated is meant for English horn. Its range is from the low *B* to the high *F*.

HECKELPHONE

Pitched in *C* and sounding one octave below the oboe, the Heckelphone is a larger instrument requiring a floor rest when played. Although its literature is very limited, *The Planets* by Holst, *Elektra* and *Salome* by Richard Strauss, and *First Rhapsody* by Delius call for the Heckelphone, specifically.

CLARINET

History

Authorities consider the *chalumeau*, an instrument with a cylindrical-bore and single-reed, a forerunner of the clarinet. Egyptian reliefs identify it as early as 2700 B.C. Modified chalumeau-type instruments appeared in several European countries. One such instrument was the *pibgorn*, a primitive European instrument constructed from the shinbone of a sheep and a bell made from a portion of a cow's horn.

The early clarinet made its appearance around 1690 through the efforts of Johann C. Denner. Denner's clarinet has seven tone holes on the top section of the instrument and one on the bottom, as well as two keys. The clarinet's construction and smaller reed produced a sound more like an oboe than a modern clarinet. By 1790, a five-keyed clarinet was in use and by 1800 a six-keyed clarinet was rather common.

Albert R. Rice, a Brussels inventor, improved the clarinet in 1846, resulting in a finely made and well-tuned instrument. His clarinet enjoyed immense popularity in Belgium and England. At the same time, Klose and Auguste Buffet designed a clarinet using some of the improvements found on the Boehm flute. They patented their improvements and the instrument became known as the Boehm system clarinet. The Boehm clarinet was extremely popular in France and its popularity spread to America. Modifications of the Boehm clarinet mechanism improved the throat tone fingerings (Mazzeo and McIntyre systems) and reduced finger movement while eliminating some of the technical problems associated with the "break" (Mazzeo and Double Boehm system).

Current Uses

ORCHESTRA

Early clarinets were not important members of the orchestra. Their short, narrow mouthpieces and small reeds produced a high, shrill and penetrating tone that blended poorly with strings. Furthermore, the inverted mouthpiece, placing the reed on top, increased its shrillness even more.

The very earliest music requiring a clarinet was a Mass composed by Faber, which was written around 1720. By 1740 the clarinet had been improved enough to be included in a Handel concertino and Rameau's *Zoroaster*.

JAZZ

The clarinet is an essential element of the Dixieland combo. In the 1930s and 1940s the clarinet was a part of the big band sound of Glenn Miller, Les Brown, and others. Combos and small dance bands occasionally use the clarinet, which is usually played by a doubling saxophonist.

MILITARY BANDS

The clarinet plays an important role in the military band. In concert work, the clarinet is to the band what the violin is to the orchestra, with the solo clarinetist being the concertmaster. The clarinet plays a lesser but still important role in the marching band. Highly technical runs in the upper range of the instruments are played as an obligato to the melody.

BASSOON

History

The bassoon probably had its beginning in the sixteenth century. With the use of instruments to accompany choirs came a need for a bass instrument with a tone less penetrating than that of the low brasses and less strident than that of the low shawms. An instrument with two parallel conical bores, connected at the lower end, in a single block of wood was the solution. It had a short crook at one end of the bore and a short, flared bell at the other end.

There were two methods of construction. The first method involved drilling two parallel conical bore sections in a single piece of wood. The other method shaped two parallel channels in each of the two blocks of wood and the two pieces were joined. Both methods wrapped the entire assembly in leather.

The new instrument had the advantage over the bass shawm or bass *pommer* of being more compact and therefore easier to carry. Its tone was similar to that of the bass pommer and much sweeter than that of the bass shawm. Because of this softer, sweeter tone, it became known as the *dolciano dolce suono* or *dulzian*. It was also known as the *fagotto* (Italy), the *fagot* (Germany), and the *fagot* or *bassoon* (bas + son = low sound: France). References to these instruments' various writings date from about 1546.

Bassoons were made in several ranges: *bass*, *tenor*, and *soprano*. Of these various sizes, the 8-foot instrument pitched in C became the standard instrument. This instrument was the *double curtal* (England) or *choristfagott* (Germany). In the early seventeenth century, the French word *bassoon* specifically referred to this bass instrument with a lengthened bell capable of sounding *B-flat*.

By 1636 the French made instruments having two separate joints or tubes that were *lie* (tied) or *fagote* (bundled as sticks of kindling wood) together. The terms *curtal fagot*, *dolciano*, and *bassoon* were used interchangeably to indicate either the one-piece or the jointed instruments scored by Cesti in his 1667 opera, *Il Pomod'oro*. These jointed instruments could well have possessed the following familiar characteristics:

- Wing joint.
- Butt joint.
- Bass joint.
- Bell made of maple or pear wood.
- Conical bore about 8-1/2 feet long.
- Pitched in C.
- Range of *B-flat* below the bass clef to C or A above.

The bassoon came into general use by the eighteenth century. Its mechanism consisted of three keys that were elaborated to six or, in some cases, even seven keys by the end of the century.

It was generally a continuo instrument but Quantz and Mozart used it more independently. Mozart gave it a staff of its own and solo parts, and in 1774, a concerto. Various keys were subsequently added, but the bassoon chronically suffered from uneven timbre and rough technique.

By the early 1830's, bassoonist Carl Almenraeder and instrument maker J.A. Heckel met. Together, they refined the bore of the instrument to produce a more resonant and even tone quality as well as an extended range. After accomplishing this significant work, they invented or redesigned several keys and mechanisms to improve facility on the instrument.

French producers attempted to introduce a Boehm system bassoon, but the instrument was heavy and the mechanism noisy. Resistance to the new fingering was even higher than it had been to Boehm flutes and clarinets. Despite these experiments, it was the Almenraeder-Heckel design that remained the basis for the modern bassoon (except in France and Spain).

Current Uses

The bassoon is currently used in orchestras, chamber music, and bands.

ORCHESTRA

Orchestras use the bassoon to give an added dimension to the lower string section and commonly employ two bassoons, plus a third bassoon and/or contrabassoon when scored. It also serves as the bass or tenor member of the woodwind choir, or to color the brass choir. In some cases, bassoons double, two on a part. This doubling is largely at the discretion of the conductor and the orchestra manager. In most instances, it is a matter of taste rather than of necessity. As a solo instrument, the bassoon possesses a great variety of tone color and character, ranging from ironic or comic to richly vocal.

WOODWIND QUINTET

Woodwind quintets or other small ensembles use the bassoon to complement the French horn. Together, the bassoon and the horn provide the harmonic and rhythmic foundation for the quintet. The bassoon frequently departs from this role, however, to play in unison or close harmony with the higher woodwinds or to play solo or obligato passages.

SYMPHONIC OR MILITARY CONCERT BAND

Symphonic or military concert bands use the bassoon to further extend the bass/rhythm role. It is occasionally given short character solos, but it is most often a support instrument, frequently doubling the baritone, the trombones, and the tubas. At times, the two bassoon parts are virtually identical. In other cases, the first bassoon may double the other woodwinds or the French horns while the second bassoon doubles the lower brass. Because of this blending, supportive role, the presence of the bassoon in a band is rarely obtrusive, but its absence is immediately felt. The bassoon's tone adds color to the sound of the instrument it doubles, frequently giving clearer definition to the line. Because of its awkwardness to carry and its relative lack of volume, the bassoon is almost never used on parade or in marching bands.

Many movie, television, and recording studio orchestras use the bassoon because of its variety of style and color possibilities. In this role, it performs styles of music from avant-garde to popular jazz. Often, in these situations doublers only adequately perform the parts, but occasionally some truly fine bassoon playing can be heard during a television show or a movie. Older Warner Brothers cartoons and movies, in particular, contain some outstanding bassoon performances.

SAXOPHONE

History

Most musical instruments go through a long period of development and improvement before becoming standardized. The saxophone is one of the few instruments that never went through this process. Adolphe Sax invented the saxophone much as it stands today in 1840-41, while he was working in Brussels.

Sax was already known for his construction and improvement of both brass and woodwind instruments. It was his intention to put a woodwind mouthpiece and fingering system on a brass conical-bore body. Thus, the two families crossed, and the basic design of the instrument has never changed. The original written range was *b* to *f3*.

In 1842 Sax moved to Paris where he continued working on the new instrument, and in 1845 several saxophones were used in French military bands. The French patent for the instrument is dated 1846. By 1847 the instrument became a standard part of French military band instrumentation, and by 1854 this standard instrumentation included eight saxophones.

In 1857, the Paris Conservatory introduced saxophone study into its curriculum with Adolphe Sax as professor of saxophone from 1857 to 1870. In 1871 the instrument was dropped and not taught again until 1942, when Marcel Mule was appointed professor of saxophone. Today's modern classical style of playing is derived from this singular time, school, and teacher.

In 1884, Kastner wrote a saxophone part for his opera *Le Dernier Roi de Juda*. The French composers Thomas and Bizet used the instrument in their works, as well. *L'Arlesienne Suites* by Bizet, 1873, is a prime example of the versatility and capability of the saxophone in the classical genre.

Saxophone acceptance and use in bands occurred almost from the beginning. Except for a few solo passages, however, it has never been fully accepted in the orchestra. Its acceptance as a solo recital and chamber music instrument occurred only within the last twenty-five years.

The saxophone's combination of brass and woodwind qualities plus its extreme tonal flexibility contributed to its acceptance in the popular music field. Until the advent of the electric guitar, the saxophone was the single most widely used instrument in popular music.

Producing sound on the saxophone is rather simple, and this may explain its popularity. However, to play the instrument musically is a very different story. The instrument's tonal and dynamic flexibility, agility, and tone quality give it the ability to blend with both woodwinds and brass. These are the qualities that make the saxophone, in the hands of an expert, capable of the most serious musical expression and such an important element in jazz.

Current Uses

ORCHESTRA

Despite their rarity, some orchestral literature requires one or more saxophones in addition to the standard woodwind section. Because of this, the orchestral saxophone player is usually an extra player and not a full-time member of the orchestra. This type of playing is very demanding because the parts are usually very exposed.

POPULAR MUSIC AND JAZZ

The character of the instrument makes it almost indispensable in jazz. Often, it is a solo, leading instrument in a combo with a rhythm section or a section of five in a large stage band. Many other combinations are possible, as well.

CONCERT BAND

Almost since its invention, the saxophone family has been a member of the concert band. This choir of four voices is written as an addition to either the brass or woodwinds and as a solo section.

MARCHING BAND

The ease of playing saxophone while marching makes it an important addition to the marching band. Both the alto and tenor play important marching band roles. The alto plays the alto voice of the band, where the only instruments previously available had been the French horns and the *E-flat* alto horns. These are far more difficult to play while marching and do not project as well. The tenor adds to the tenor line of the band, previously occupied by only the baritone horn or euphonium.

SOLO AND CHAMBER MUSIC

The saxophone has become well known as a solo instrument and modern chamber music includes the saxophone more and more often. Playing in a saxophone quartet can be a most rewarding musical experience. Quartets use the same voices as the saxophone section of a concert band except that the first player must sometimes play soprano. Much fine literature has been written for this ensemble and many string quartets transcribed, as the voicing for both groups is the same.

RHYTHM GROUP

PERCUSSION

For information on the Percussion Section, see TC 12-43. Due to the large volume of information contained in that publication, it is omitted here.

PIANO

History

Development of the piano began with the need for a keyboard instrument capable of dynamic contrasts. Bartolomeo Cristofori, the Italian harpsichord maker, designed and built the first piano in Florence around 1720. It was the *il gravicembalo col piano e forte*, or the harpsichord with soft and loud, and its shape was very similar to the harpsichord. Although invented in Italy, the piano was developed in Germany where two different types of action were produced.

In the second half of the eighteenth century (circa 1760), several German piano makers settled in London. Gradually, they abandoned the square shape of the grand piano they had brought with them. This was due, in part, to the fact that the harpsichord, rather than the clavichord, was then the prevalent keyboard instrument in England.

John Broadwood, a leading British piano manufacturer, influenced the changes from German and Italian models to the English grand. It became heavier and two pedals were added. The keyboard projected out from the walls of the case instead of being recessed, exposing the performer's hands.

While a more modernized piano was being developed in England, the Austrians created a special type of piano: the *stein-streicher*, named for the manufacturer. It was a charming, delicate instrument similar in appearance to the harpsichord, with the musical sound and touch of the clavichord. Although excellent in its clarity and rapid response, it could not withstand the power and passion of the music of Beethoven and the later Romantics. For this reason, it was eventually discontinued.

Along with Italy, Germany, and England, France was a piano-making center from 1752 to 1831. Piano makers Sebastien Erard of France and Broadwood of England were largely responsible for the creation of the modern piano. Their alterations included heavier, thicker strings, a thicker soundboard, a greatly increased range, and a raised pitch. These developments made the resulting tension on the strings (approximately 20,000 kg.) too great for the piano's wooden frame. Steel bars and metal braces had to be used. Finally, an all cast iron frame was introduced, taking all the weight off the wooden parts.

At the same time (approximately 1821), Erard created a more responsive and reliable action called the double escapement. The first step in the evolution of the grand piano was the creation of the overstrung scale. This consisted of a new arrangement of the strings within the case. The treble strings fanned out across the largest part of the soundboard. The bass strings crossed over them at a slightly higher level. This resulted in a much more powerful piano and a fuller, more resonant harmonic sound, especially when the damper pedal (the right pedal) was depressed. This overstringing arrangement also removed some of the tonal clarity and transparency characteristic of earlier pianos. Consequently, certain full chords played in the middle to lower registers became undesirable because of harmonic ambiguity or muddiness, particularly when the damper pedal was used.

Types and Current Uses

The piano has a variety of functions today in the areas of legitimate or classical as well as popular music. It functions as a solo instrument and as part of an ensemble.

LEGITIMATE

Ensemble. Large ensembles, such as the symphony orchestra and wind ensemble use the piano. It also plays an important role in chamber music or smaller instrumental ensembles.

Accompaniment. An important function of the piano is to accompany vocalists, choral groups, or other instrumentalists.

Solo. As a solo instrument, the piano performs extensively for recitals and program settings. It also performs concertos, arrangements, or transcriptions with symphony orchestras and wind ensembles.

POPULAR

Ensemble. The piano is nearly indispensable in popular music, especially as the electric piano is a standard part of a combo and the rhythm section of the stage or dance band. It may also be used as part of the band or orchestra for stage shows and musicals.

Solo. As a solo instrument, the piano plays cocktail, easy listening, jazz, blues, or ragtime.

TYPES

Basically, there are three different types of pianos in use today: the traditional or acoustic piano, the electric piano, and the synthesizer.

Acoustic. The acoustic piano is of two types: the grand piano, which ranges in size from five feet seven inches to eight feet or more, and weighs upwards of 600 pounds; and the upright piano, which is actually 40-60 inches in length. Depending on the manufacturer, the upright may also be referred to as a console. Consoles range in size from 30-40 inches. A smaller form of the upright is the spinet that ranges from thirty inches to 36 inches in height, has shorter strings, and has a shorter keyboard.

Electric. The use of electronic keyboards in performing, recording, and individual practice has become widespread. These instruments are easier to maintain than acoustic pianos, since no tuning is required, and are completely portable. They are easier to amplify than an acoustic piano because the natural resonance of a piano, when highly amplified, often leads to feedback.

Early electric pianos include the Fender-Rhodes and Wurlitzer electric pianos. Though these instruments did not sound like acoustic pianos, they did produce very pleasing characteristics, and modern instruments often imitate their sounds. The first keyboard to serve really well as a piano was the Yamaha CP70, which has hammers, strings, and soundboard. However, its extreme weight caused it to become much less popular when the new generation of Pulse Code Modulation keyboards was introduced. The term "electric piano" now generally refers to a keyboard with 88 weighted keys, often with a more restricted palette of sounds. Some of these may include built-in speakers, making this instrument a stand-alone substitute for an acoustic piano

Synthesizer. The current use of the term "synthesizer" generally refers to a keyboard with a wide variety of sounds, usually including a good acoustic piano sound. It may have 88 keys, 60 keys, or some intermediate number. It may have weighted keys, which resemble the action and feel of an acoustic piano, or it may have synth-action keys, which have a lighter resistance similar to that of an organ.

There were several developments in synthesizers that periodically gained much attention. Synthesizers are instruments that produce sound totally electronically. This was first done through a process of running electrical current through specialized circuits. These could be modulated to imitate various sounds, but more importantly, to create new sounds. The advent of digital technologies greatly improved the reliability and flexibility of these instruments.

One of the most important developments was the creation of the Musical Instrument Digital Interface (MIDI). MIDI allows the transfer of information from one keyboard to another, or to a computer or other MIDI-equipped devices. This allows a player to play upon multiple instruments

simultaneously, basically by remote control. This musical information can also be recorded and played back, and these recordings are called sequences. A keyboard with a built-in sequencer is called a workstation. The introduction of MIDI changed music production methods, since it became possible to create an entire "band" by these means.

Besides MIDI, the biggest revolution in keyboards came with the introduction of keyboards using Pulse Code Modulation (PCM) technology for the production of sounds. This means that the actual sound of an acoustic instrument can be recorded (sampled) and played back from the keys of the keyboard. Samplers had previously been available for some time but were expensive and difficult to use. PCM technology made it possible to engineer such acoustic wave samples into the hard circuitry of the keyboard, reproducing almost any sound with reasonable faithfulness. Wind sounds are harder to reproduce, since they rely heavily on variations in articulation for slurring of notes. But piano, bass, guitar, mallet and percussion sounds can all be reproduced with good results.

GUITAR/ELECTRIC BASS GUITAR

History

The guitar originated in the Near East. Nomadic Arabs carried its predecessors across Northern Africa into the Iberian Peninsula, resulting in its traditional popularity in Spain and Portugal. Thirteenth century paintings depict various forms of the guitar. It was not until the sixteenth century that the guitar began to appear in Spanish classical music.

The guitar became highly popular in the seventeenth century. This was partly because the art of the lute was reaching artistic perfection at this time and the guitar was somewhat easier to play. Boccherini, Schubert, and other prominent composers wrote chamber music for the guitar. However, its use in classical music began to diminish until the turn of the twentieth century when Francisco Tarrega and Andres Segovia initiated the revival of the classical guitar.

The use of the guitar in folk and popular music has never waned, and it remains one of the most widely played instruments today.

Types and Current Uses

The types of guitars in common use can be generally classified as acoustic, amplified, bass, and miscellaneous.

ACOUSTIC

Flattop Spanish. This type includes most flattop, round-hole guitars using gut or nylon strings.

Classic. This is the basic model. It is used by classical guitarists for solo and ensemble work. The currently popular models are somewhat larger than those of several hundred years ago. Almost all have metal tuning mechanisms. The better models are constructed largely of Brazilian rosewood, ebony, and spruce.

Flamenco. The flamenco is very similar to the classic model except most models have a clear plastic tap plate beneath the sound hole. The tap plate accommodates the percussive effects that flamenco artists use when accompanying dancers. The trend is toward using machine heads but many flamenco guitars still have solid ebony or rosewood tuning pegs like a violin. The string height may be lower than that of the classic. The sides and back are often made of Spanish cypress instead of rosewood.

Steel String. Country, folk, and blues artists generally play steel string guitars, whether flattop or archtop.

Flattop. The flattop guitar looks much like a classic guitar but has substantial instrumental differences. The tuning machines are generally single, instead of in threes, and are stronger. The peghead has a simpler shape, and many older models use slotted pegheads. The narrower neck allows the player to use the thumb to finger the frets.

Twelve-String Flattop. This guitar is used primarily for folk music. It has a wider neck than the six-string with six additional tuning machines and bridge pins. The larger models are the most popular and the most useful. The top two sets of strings (E and B) are tuned in unison and the bottom four sets are tuned in octaves.

Archtop (plectrum). This type of guitar is seldom used now without amplification. Originally, it was used solely as a rhythm instrument but most jazz artists today use its amplified version as a solo instrument. The strong arch of the top and back, along with *F* holes, tends to make the instrument more closely resemble a violin. Additionally, it has a tailpiece to relieve the strain of the highly tensioned strings.

AMPLIFIED

This is the class of guitar primarily used by Army bands. The major types are the hollow-body and the solid-body.

Hollow-Body. The hollow-body is usually of the archtop variety. Magnetic pickups are normally mounted in the top but pickups mounted on the pickguard allow a more acoustic guitar sound. Many hollow body guitars are thin, actually making them semi-acoustic.

Solid-Body. A solid-body guitar has little inherent resonance and is dependent on its pickups. The lack of resonance gives the solid body a clean, pure sound preferred by some rock and combo guitarists. The solid wood construction facilitates the addition of various accessories.

BASS

The third class of guitar includes the acoustic bass, the electric bass guitar, and the electric bass.

Acoustic Bass. This guitar is rarely used except in certain Latin bands. It is a huge guitar having six strings and a range an octave lower than the normal six-string guitar.

Electric Bass Guitar. This is generally a solid body instrument. It is the best instrument for guitarists learning bass because the neck is about the same size as a guitar neck. It uses the bottom four strings of the guitar, sounding an octave lower.

Electric Bass. The electric bass is somewhat different from the bass guitar in that the neck is longer and narrower, requiring a different playing technique.

MISCELLANEOUS

The fourth class includes instruments related to the guitar but seldom used by Army bands.

Ukelele. The ukelele is Portuguese in origin. It resembles a miniature classical guitar with four strings. Although it is still popular in Hawaiian folk music, its use is very limited.

Steel Guitar. The steel guitar is used primarily in country bands. It is a box-like apparatus having no acoustical amplification. It is capable of long sustained tones and has a characteristic glissando.

Banjo. The banjo was once very popular but is now generally restricted to Dixieland, bluegrass, country, or nostalgia groups. The thumb is used in strumming, as well as the fingers, and the highest string (high G) is placed next to the lowest (low G) for this reason. The instrument has little sustaining capacity and requires a completely different playing technique from that of the guitar.

Lute. The lute is still used somewhat in classical literature. Its descendant, the mandolin, is often used in Mediterranean-style music. Its technique is characterized by rapid single-note strumming.

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CHAPTER 2

TRAINING AND LEADING THE SECTION

CONDUCT A SECTIONAL REHEARSAL

Leading a sectional rehearsal is a critical part of a section leader's job. The bandmaster and NCO supervisors rely on section leaders to solve technical problems within their own sections. Efficient section leaders make full rehearsals run smoothly, saving valuable time.

The principles involved in leading a sectional rehearsal are very similar for all instrumental sections and resemble the procedures for performance-oriented training found in STP 12-02B-02U, Skill Levels Three and Four. The key principles are the same: establish objectives and intelligently plan their achievement. Begin with pre-rehearsal procedures.

Pre-Rehearsal

Pre-rehearsal procedures can be done quickly, and chances are they are already employed to a certain extent. These procedures are—

- Forming Rehearsal Objectives.
- Planning Rehearsal.

FORMING REHEARSAL OBJECTIVES

Generally, clear objectives evolve from cues the bandmaster provides during rehearsal. For instance, the bandmaster says, "*Sergeant Smith, the clarinets haven't played that run correctly all morning. I don't want to hear the same mistakes tomorrow.*" In cases like this, it is not hard to decide upon rehearsal objectives. Always write down objectives for the rehearsal.

Long or short-term goals can also help with objectives. Suppose one goal is improved intonation. A suitable short-term objective may be to sustain one chord in a certain piece perfectly in tune. If your goal is to upgrade section technique, the objective for one rehearsal might be playing a two-octave scale twice in one breath.

Rehearsal objectives should be something that can be accomplished in the time allotted. Include specific standards such as tempo or number of mistakes allowed. Objectives may include conditions or specific circumstances: play while marching or play without music.

PLANNING REHEARSAL

A good rehearsal plan is one that enables the section to reach objectives rather than restricts progress. A well-constructed plan is flexible enough to meet rehearsal needs but will maintain focus on objectives during rehearsal.

Section leaders may have to write out rehearsal plans until the procedure becomes so familiar that it happens naturally. Learn the following procedure and try sketching a plan using your current music folders.

- **List rehearsal objectives.** Put them at the top of the plan.
- **Budget rehearsal time.** Budget rehearsal time or some objectives may be short-changed. Open-ended rehearsals have an advantage in that work can continue until the passage is correct. A disadvantage is that without the discipline of a firm schedule, rehearsals may tend to wander or get bogged down, wasting time.
- **Section warm up.** Allow five to ten minutes for warm-up, if necessary. If time permits, the warm-up period is the ideal time to drill on fundamentals, such as scales and flexibility studies.
- **Arrange objectives.** The highest priority items, of course, will be the problems in which the bandmaster expressed the greatest interest. Other priorities might be arranged in order of scheduled performance or difficulty of preparation.
- **Arrange rehearsal order.** After warming up, work on a problem that will be easily solved. This will vary with the time available and the urgency of the rehearsal, but it is a good practice. It allows the section to begin concentrating, and it instills confidence.

Next, work on problems in order of priority. Rehearsals might get cut short, problems may exceed the time allotted for them, or players may become fatigued. In any event, getting the most difficult problems out of the way as soon as possible is good insurance.

To finish rehearsal, play through a complete number or passage on which the section has done a good job. This will give players a feeling of accomplishment. If time is at a premium, dispense with this.

- **Assemble rehearsal materials.** If method books are planned as part of rehearsal, get enough copies for everyone to see. Get enough stands and chairs. Tell the section what is needed for rehearsal: pouches, concert folios, mutes, amplifiers, etc.

Conducting the Rehearsal

For a section leader to rehearse a group while playing may seem difficult at first but will become easier and more effective with practice. Here are some principles to increase rehearsal effectiveness:

- Listen and Analyze.
- Form Intermediate Objectives.
- Begin Problem Solving.
- Assign Individual Practice.

LISTEN AND ANALYZE

First play problem sections or short numbers completely so that each player has a concept of the piece and an idea of what has to be done. During that initial run-through, make a mental note of specific problems. When a section leader becomes accustomed to this process, mistakes will be separated into those problems that need plenty of work and those that are simple player errors. In the beginning, though, listen to everything and plan on rehearsing each problem. A section leader must *master the music before rehearsal* so that personal player errors do not interfere with the detection of section errors.

When the run-through is complete, analyze the problems. Were they related? Were they similar passages? What may have caused the mistakes?

Quite often, a section will stumble over passages that are based on one particular fundamental of playing, such as a difficult scale or chord. If analysis shows some similarity in problem spots, decide what the fundamental weaknesses may be. For instance, the section may have had trouble with two or three technical runs. Close examination might reveal that the problem sections are actually parts of the same harmonic minor scale. Perhaps the section might have had trouble with two arpeggiated figures. Analysis could reveal that both figures contain an augmented fourth that may be hard to hear.

Of course, mistakes by a section are not always related. Usually, though, whatever caused the mistake on a figure the first time will cause the same mistake whenever the figure appears. Whatever the mistake and no matter how often it occurs, it is due to either carelessness or to weakness in certain playing fundamentals. The section leader must decide which is the case and take the necessary corrective steps.

FORM INTERMEDIATE OBJECTIVES

From analysis, form suitable intermediate objectives. As the name implies, intermediate objectives are short-term goals that are progress indicators.

How is the intermediate objective formed? The simplest way is to look at a problem and split it into smaller parts that involve only one problem. For instance:

- “To play the second strain cleanly, the runs in the 3rd and 7th measures need work.”
- “Before that passage will sound good, we must get the chord at letter *B* in tune, clean up the attack two measures after, and get the rhythm right at letter *C*.”

Intermediate objectives are helpful because they correct one problem at a time. Also, they save rehearsal time because mastered sections need not be revisited.

BEGIN PROBLEM SOLVING

If problems analysis is done and formation of intermediate objectives is complete, begin problem solving. The problem solving process has nearly as many approaches as there are problems. While not every possible approach can be discussed, here are some very basic ideas.

Most technical runs are part of a scale. Identify the scale and have the section practice it several times. Practice it starting from the bottom, then from the top. Try it in different octaves and with different articulations. When the scale has been mastered, go back and try the run. The improvements will be surprising.

Intervals often outline a chord. If a complicated passage contains consecutive thirds and fourths, it is probably a chord of some sort. Determine the chord and have the section play the arpeggio several times, similar to the method for scales. When the section hears how the chord sounds, they will develop a good feel for it and play the passage with much improvement. Diminished chords can be especially hard to hear and play melodically. Anytime two or more consecutive minor thirds are present, a diminished chord exists, and section drill on diminished arpeggios, half-diminished sevenths, and fully diminished seventh chords will improve execution.

NOTE: Always be alert to possible alternate fingerings that will simplify a difficult passage.

If intonation problems on a specific chord are present, find the root of the chord. Have the player(s) with the root play a little louder. This will give the section something to relate to, and may help them hear the chord better.

Poor attacks and releases may be even worse during sectional rehearsal than during full band rehearsal. Without a conductor, there may be no clear beat, and attacks will be ragged. Don't be afraid to do some loud foot tapping or counting during sectionals. Another tool that can be used is the metronome.

Difficult rhythms can be taught quickly by demonstration. The section leader must master complex rhythms and syncopation before the rehearsal and should have no trouble playing, singing, or clapping the rhythms for the section.

Frankly discuss difficult passages with the section. This enhances critical musical and technical skills in the section and encourages more inexperienced players to contribute their ideas for problem resolutions.

ASSIGN INDIVIDUAL PRACTICE

Individual practice is often more efficient than group drill. If one or two players have a problem that the rest of the section has mastered, do not allow that to halt the progression of the rest of the section.

HOWEVER: Do not use individual practice as a blanket solution to an individual problem.

Before assigning individual practice to someone in the section, specifically state what is required and exactly how to get it.

DO NOT SAY: *“Go practice the third movement.”*

SAY: *“You’re not playing measure 57 fast enough. It’s one and a half octaves of a B-flat minor scale. Practice that scale two octaves up and down until you can play it in one breath. Page 15 of the “Jones Method Book” will help. I want to hear that measure tomorrow morning.”*

It is often beneficial to observe and/or participate in the player's practice session. Observation may bring to light something the player is doing improperly and be able to help correct it. Playing the part along with the Soldier may help develop the player's confidence, however, do not let the player lean on your playing. It may also generate an idea for a different approach that will help the entire section. Of course, if close attention makes the player excessively nervous, continued scrutiny may do more harm than good.

ORGANIZE THE SECTION

Section organization is often handled too casually or with the wrong approach. The goals of thoughtful organization are to get the best sound from the section and to help everyone reach their full potential. For this reason, a good section leader approaches organization analytically, never assigning chairs or parts by seniority, popularity, or guesswork.

Appraisal of Players

Every section leader must know each player's capabilities before effectively employing those capabilities. This is a continually ongoing process, beginning with evaluating a new player, through daily observation of their development, until the day that Soldier leaves the band. All instrumentalists, including section leaders, will have specific weaknesses and specific strengths that must be taken into account when setting up a section. Assess the following strengths and weaknesses—

- Technique.
- Endurance.
- Sight-Reading.
- Tone.
- Intonation.
- Personality Factors.

TECHNIQUE

Technique is fairly easy to judge quickly. Unless the player has been off the instrument for some time, judge technique by casually listening to a warm up or practice session.

Do not confuse technique with sight-reading ability. A poor reader often has good facility when playing something familiar. Conversely, do not be falsely impressed by a particular solo or passage. Mastery of the solo may be, relatively, much higher than mastery of the instrument. What you want to discover is how well the player can perform the type of music the band normally plays. Listen to the player work on this type of music. Ask yourself these questions:

- Does the player perform it cleanly?
- Is the tempo deliberately slowed for runs or other technical passages?
- If, during reading, the player stumbles on a passage, can the mistakes be corrected quickly?
- Are scales and arpeggios clean when played rapidly?
- How does the player compare in this respect to other people?

ENDURANCE

This is crucial for brass players in military bands and important for all instrumentalists. While embouchures may tire faster than fingers, it is important to know whether a drummer will last for a street parade without slowing down, or whether an electric bass player can get through a four-hour combo job without getting blisters. The best lead player is of little value on long commitments if fatigue sets in before the end of the job. Ask these questions:

- Listen to a brass player perform a march. Does the march sound as good at the end as it did at the beginning?
- Watch the players during a demanding number. Do they rest often?
- Listen to the upper register. Does the intonation suffer?

SIGHT-READING

Reading is an important skill for military musicians. Although one seldom sight-reads a job, good reading skills reduce rehearsal time. The ability to read well is especially important to lead players. Assessing reading ability is not difficult and it is the most common audition technique. However, a valid check of this ability is *not* confined to one formal audition. Listen carefully during rehearsals:

- Are transitions easily performed?
- Are dynamics and expression markings observed when reading?
- Is unfamiliar music played with reasonable assurance?

Try a more formal audition if desired. Take into consideration, however, that the added psychological pressure may inhibit the player's ability somewhat. However, this may be useful information if a player is being considered for a lead position and lacks confidence.

-tone

Do not limit your judgment of tone to one listening. The player might be quite versatile and capable of producing different sounds in other idioms. Also, look for a tone production factor that can be readily modified to change the player's sound, such as the use of a specialized mouthpiece or a leak in the instrument.

The principal issue to consider is how to fit a player's tone into the overall section. A strident sound leading a clarinet or trumpet section can heavily influence the sound of the entire section. A saxophone player who gets robust 'rock' sound on alto sax, may give the concert band section an entirely different sound on baritone sax.

INTONATION

When you are satisfied that the player is performing correct notes, volume, and rhythm, yet something still seems wrong, the fault could be poor intonation. Unless a player's intonation is unusually bad, this can be the quality hardest to judge accurately. The section leader must be able to discriminate between good and poor intonation.

Do not dwell on how well a player tunes a single note. Instead, listen to the intonation throughout the range of the instrument (how one note relates to another). Notice especially how well octaves are played in tune with each other. Listen as more difficult intervals are played. A player with a good ear will tend to adjust pitches to bring a chord in tune. Ask the player to perform secondary parts:

- Is the player in tune with the lead?
- Does the player seem to adjust on chords?

PERSONALITY FACTORS

This can be a very sensitive area and the judgments may be subjective. However, it is an area that cannot be ignored but do not misconstrue this as an excuse for favoritism. Only a few of the many factors in this area will be highlighted here.

- **Dependability.** Many section leaders have found that some players with great potential are bad risks for lead or solo parts, simply because they fail to perform well when needed. Make certain to select dependable players for key roles in the section.
- **Experience.** Nothing replaces experience. The player who has been exposed to countless pieces of music, countless styles, many conductors, and many situations will help get the section through plenty of rough spots. An experienced player with average talent can often be more valuable than a flashy player who is easily confused.
- **Availability.** Unfortunately, highly talented people will be in demand for many activities and may not always be available for rehearsal. Try not to become overly dependent on those most likely to be involved with other duties when sectionals are scheduled. This is often the case when a senior NCO is in the section.

ASSIGNING PLAYERS

The section leader must know what kind of sound the bandmaster expects from the section and the soloist. Some bandmasters want a marching sound that is different from the concert sound. It is the section leader's responsibility to understand the desires of the bandmaster and assign parts respectively.

Divisi parts are often difficult to assign. Before assigning *divisi* parts, the section leader should consider the music for the entire program. If the *divisi* part is not too high or if the remaining parts are not excessively high, it is advisable to put the best high register player on the top part. However, if the program includes several solos or is written in the high register for long periods, the section leader may want to assign the upper part to another player and allow the soloist to rest.

Though concert band seating arrangements may vary, the section leader should sit so they can hear the entire section. However, seating must not interfere with bell position. When the section contains both upright bell instruments and bell-front instruments, instruments with upright bells should sit on the right. This will facilitate reading and help avoid collisions when putting the instruments down.

Marching positions may not always be at the option of the section leader, but when they are, the section leader should position players where they can see the drum major at all times. Players using instruments with upright bells should march on the right side of the band, and players with bell-front instruments should march on the left. Inexperienced players should not march in the guide file.

Because baritone horn parts are written in bass and treble clef, and the bass clef part is sometimes different from the treble clef part, the section leader should encourage players to learn to read both clefs. This will increase flexibility in part assignments and the versatility of the entire section.

Above all, a section leader must set the example for the section. A section leader who cannot earn and maintain the respect of the section is of no value. Advance preparation is extremely important in all performance aspects in order to allow insight for potential problem areas and permit correction before major difficulties occur.

NOTE: Leading small groups and taking your first commitment can be quite an experience. Proper planning and productive rehearsal can bolster confidence, allowing for a better chance of remaining poised. Many of the principles for leading a group are similar, no matter what the group. The techniques for leading a combo or permanently established group, however, are a bit different from those discussed here (see STP 12-02B-02U-34 SM-TG).

INDIVIDUAL PRACTICE

“Should certain exercises prove more difficult than others, work on these until they are thoroughly mastered. Do not waste time on those that are easy. Remember that to improve, one must master difficulties each day.”

Herbert L. Clarke
(Clarke, *Technical Studies*, Carl Fischer, Inc)

This quote from Mr. Clarke is especially important to military musicians. Practice is something all instrumentalists need but for which there is seldom time. Therefore, a few approaches to individual practice (IP) are presented as well as how to make the best use of limited time.

There are generally three basic types of IP. Most players use one of them, depending on their current situation. The general types are:

- Maintenance Practice.
- Utility Practice.
- Developmental Practice.

MAINTENANCE PRACTICE

Maintenance practice is for the trained player who has little time for IP but cannot afford to lose proficiency. Since an Army musician may be performing or rehearsing from 10 to 20 hours a week (actual playing), the normal routine will go a long way towards maintaining proficiency.

Maintenance problems usually occur in one of the *facets* of playing. The brass player may find endurance slipping during concert season but may have no trouble with the expressive playing. The percussionist may find mallet technique fading during marching season but may easily maintain rudimental snare drum technique.

Instrumentalists must analyze their personal playing. Where has it begun to slip? Find or write some practice routines that focus on that facet and concentrate practice in that area. Use some of them in daily warm-up. Develop some brief routines and stick to them religiously and remember that ten to fifteen minutes of *daily* practice of these routines will be more beneficial than one or two very long sessions.

Repeat the analysis process often. Every time daily routines change, the situation changes. Keep a file of music in various styles that you have played well and play through it occasionally. If the top notes don't come as well as they once did or if the runs are not clean, return to the basic fundamentals such as scales and long tones.

UTILITY PRACTICE

The most common type of IP, utility practice, is preparation for both rehearsals and commitments. It is not aimed at a specific area of playing as much as it is at mastering a troublesome piece or passage.

To be efficient in this type of IP, objectives must be clear—know what specific measures, runs, leaps, etc., present problems. If assigning IP to someone in the section, show *exactly* and *specifically* what should be corrected. Do not spend 20 minutes on the slow, easy passages and only two minutes on faster more difficult passages.

Sometimes a different approach is needed for an exceptionally problematic piece. Begin by sorting out the most complex rhythms. Ways of doing this are:

- Subdivide the rhythms.
- Clap the rhythms.
- Sing the rhythms.
- Play the rhythms on one note.

Play the rhythms very slowly and gradually increase tempo until they can be played *faster* than the bandmaster expects.

If the key of a piece presents a challenge, work on scales in the key of the—

- Tonic.
- Dominant.
- Subdominant.

Also, scales must be mastered by--

- Playing the scale in all available octaves, and
- Playing the scale beginning on a different note each time.

Work on the arpeggios in the same fashion and practice using alternate fingerings. Then, go back and try the passage. There should be a great deal of improvement.

DEVELOPMENTAL PRACTICE

Developmental practice is the kind of work done when a player is genuinely serious about upgrading proficiency. It entails engineering a systematic approach and plenty of hard work. Employing a routine is very important to developmental practice, so resolve to muster plenty of self-discipline.

Several texts on the subject are available for most instruments, but do not look for books of randomly ordered exercises. Instead, try to find a book by a successful teacher that discusses good approaches and presents guided study programs and use these to help the section.

If funds are available, try to get instruction from a qualified teacher. This is certainly the best route to take a player is serious about improving performance. Ask the first sergeant to look into the possibility of government-funded private instruction. Each band has varied methods for procuring funds for private lessons and the request process is not standardized from one unit to another.

Listen to professional instrumentalists, and work to match their sounds. Arrange for players to listen to each other occasionally to monitor progress. Set goals for practice sessions while taking training and commitment schedules into consideration. Do not skip practice on weekends, but don't try to cram a week's neglect into one six-hour session either. Above all, practice intelligently because results are more important than time expended.

CHAPTER 3

TYPES OF BANDS AND PERSONNEL

TYPES OF BANDS

Army bands are a commander's powerful tool for promoting goodwill and good relations with members of a local population. Army bands entertain Soldiers and citizens of the United States, its allies, and host nations in both garrison and battlefield environments. This is readily evidenced by participation in Operations Desert Shield, Desert Storm, Joint Endeavor, and Urgent Fury, as well as Task Forces Eagle, Falcon, and Andrew, and Operations Iraqi and Enduring Freedom. Field Manual 12-50 (1-19) covers details on Army Band support functions.

Army bands perform music that connects the Army to its heritage. It is a direct line between the Soldier of today and the foundations of our country. Army bands provide music to the civilian community, promoting patriotism and interest in the Army, and they demonstrate the professionalism of our forces. FM 12-50 (1-19) and AR 220-90 cover Army bands and organize them into the three distinct types discussed below.

SPECIAL BANDS

Larger size, higher organizational level, and stricter entrance requirements characterize special bands. They are commanded by commissioned officers with the exception of the Old Guard Fife and Drum Corps, which is commanded by a warrant officer.

The United States Army Band (Pershing's Own) provides musical support for troops, for Army recruiting, community, nation, and international relations activities, and for official ceremonies and events for the United States of America, Military District of Washington (USAMDW) and its tenant and support activities as authorized and/or directed by Headquarters, Department of the Army (HQDA).

The United States Army Field Band provides musical support to strengthen ties between the Army and civilian communities as well as national and international ties for the Office, Chief of Public Affairs, Secretary of the Army, as authorized and/or directed by HQDA.

The United States Army Military Academy Band provides musical support for the U.S. Military Academy, its tenant and supported units' activities, Army recruiting, and community, national, and international public relations activities as authorized and/or directed by HQDA.

The Old Guard Fife and Drum Corps is assigned to and supports the USAMDW, and also provides support to Department of Defense, the White House, and other civic and governmental activities in the National Capitol Region. The Old Guard Fife and Drum Corps represents the Army and the nation at major national and international events as directed by DOD and HQDA.

GENERAL SUPPORT (GS) BANDS

General Support bands are commanded by commissioned officers and support multinational operations in order to significantly strengthen the common spirit and pride of Americans, as well as to build a bond between U.S. forces and peoples of other nations. The principal operational purpose of these organizations is to act as a non-threatening show of force and professionalism for parent unit commanders. The mission of these bands is to provide music throughout the full spectrum of military operations and instill in our Soldiers the will to fight and win, foster the support of our citizens and promote our national interests at home and abroad.

DIRECT SUPPORT (DS) BANDS

Direct bands are commanded by warrant officers and may be deployed in a Theater of Operations. These bands embrace the parent unit commander's intent, serve as a combat multiplier for that commander by significantly affecting the morale, esprit de corps, and will-to-win of the troops in the unit's area of operations, provide support to counterpart-level coalition operations within its area of operations, as well as to build bonds between U.S. forces and peoples of other nations. The mission of these bands is to provide music throughout the full spectrum of military operations and instill in our Soldiers the will to fight and win, foster the support of our citizens and promote our national interests at home and abroad.

ARMY RESERVE AND NATIONAL GUARD BANDS

Both the U.S. Army Reserve and the Army National Guard have bands allocated in a fashion similar to the Active Army. They are organized under Tables of Organization and Equipment (TOE) comparable to their Active Army counterparts. Major differences between Reserve Component (RC) bands and Active Army bands are—

Limited Training Time. RC bands meet for a limited number of drills each month. These drills are often used for commitments, further limiting rehearsal time.

Different Training Modes. RC band Soldiers do not normally attend AIT at the US Army Element, School of Music. NCOs in RC bands have some opportunity for career training, but this is often limited by funding. RC bands are normally called to active duty for two weeks of training annually.

Limited Career Development. Reserve Component musicians often spend their entire career at a single band. Administrative and supply support is often handled by full time Admin/Supply Technicians (AST), thereby relieving some NCOs of many of the support function positions found in Active Army bands. However, most RC bands do require NCOs to perform other types of support functions.

BAND OFFICERS

WARRANT OFFICER BANDMASTERS

Warrant officer bandmasters lead most Army bands and are most often the commander of the band. Bandmasters may also serve as associate leaders of special bands, staff band officers for MACOMs and in various positions at the U.S. Army Element, School of Music. RC bandmasters are required to complete warrant officer candidate school and meet the same prerequisites as active duty warrant officers.

Mandatory Prerequisites for Application. Applicants must be at least a Sergeant (E5) on the standing promotion list, a BNCOC graduate, and have 5 years of musical performance experience in any CMF 97 MOS. The applicant must also have a letter of recommendation from an Army band commander or Staff Bands Officer. Applicants must also submit a videotape (VHS) that demonstrates their conducting ability with an Army band. All active duty applicants must score 2.9 on an instrumental audition in their primary MOS. For additional information see AR 135-100, AR 611-112, and DA Circular 601-99-1, as well as NGR 600-01-01 for ARNG applicants.

Preferred Prerequisites. Applicants must meet the minimum prerequisites above, should have completed 60 semester hours towards a Bachelor of Music degree, have a minimum of 2 years of small instrumental performing group supervisory experience, and have 3 years experience in band support activities such as unit administration, band operation and/or band supply.

The Videotape Audition. A videotape (VHS format) of the applicant demonstrating rehearsal ability with an Army band is required. The following selections are required:

Ceremonial Music (band is indoors and seated)

- *Attention* - followed by a short pause
- *Adjutant's Call* - going directly into:
- Any march of the applicant's choice, followed by a short pause, then,
- *The National Anthem* {*The Star Spangled Banner*} DOD version.

Concert Music (approved selections are listed on the USAESOM website)

- One Concert Band selection.
- One Popular Patriotic Concert Band selection.
- One March selection.

The purpose of the tape is to show the applicant's rehearsal ability rather than a performance situation. The tape must show the band from the conductor's view prior to the recording of the rehearsal. During the rehearsal, record the conductor in such a manner to clearly show body gestures, conducting/beat patterns, hands, arms, and facial expressions. Both rehearsal technique and conducting ability will be evaluated. Place an auxiliary microphone near the conductor to record the audio portion of the rehearsal. This will allow the conductor's comments to be heard and eliminate the use of the camera-mounted microphone usually found near the percussion or trumpet section. During the rehearsal, the band must be in an appropriate indoor rehearsal facility and seated.

The videotape must be labeled with the name of the applicant and the titles of all musical selections recorded on the tape. Please make a copy of the tape in the event something happens to the original.

If the applicant desires to substitute a selection for what is on the required list, prior approval from the proponent must be granted. Applications will be returned without action if music is substituted without prior approval.

ARMY BAND OFFICERS

To become an Army band officer, an applicant must possess a baccalaureate or advanced degree in music and comply with the technical qualifications and application process established by the Department of the Army Staff Bands Officer (DASBO). The applicant must be deemed fully qualified by the Army Band Commissioned Officer Examining Board/Officer Candidate Board to serve capably in all elements of the Army Band Career Program and be recommended to the CG, PERSCOM for accession and designation as an Army band officer. Upon completion of Officer Candidate School, the applicant will attend the Army Band Officer Course at the School of Music. This course provides training in advanced conducting techniques, related musical skills, and in Staff Band Officer duties.

CHAPTER 4

TYPES OF ARMY BAND SUPPORT

Army bands are capable of offering a wide variety of musical support. Bands perform indoors and outdoors in most climatic conditions. See AR 220-90 for regulatory guidance on use of Army bands. A band's committing authority is normally the G1/AG or PAO (see Common Staff Sections, Chapter 5).

CEREMONIAL SUPPORT

Army bands perform music that is connected to American heritage, military history, unit lineage, and individual honors. Among Soldiers, ceremonial music helps to build enthusiasm, maintain motivation, and increase devotion to the unit, the Army, and the United States of America. Army band participation in a ceremony adds dignity, solemnity, tradition, and honor. Music creates an emotional bond that leaders can use to draw a unit closer together, to show honor and devotion, and to remind Soldiers of friends and family back home. Music also highlights history and draws attention to sacrifices and hardships as well as victory and heroism.

Ceremonial music can be tailored to fit the occasion and includes official music (national anthems, honors for visiting dignitaries), marches, patriotic selections, and organizational songs. A band commander is the technical expert on music to be performed and should be consulted as to the suitability and feasibility of a particular selection.

Army bands can be used to enhance many ceremonial events and are not limited to reviews, military honor guards and cordons, and funerals.

CIVIC SUPPORT

Music, with its inherent ability to raise emotions and highlight events past and present, as well as promote optimism and determination for the future, is the ideal tool for a commander to use in supporting civic events. Army band support and participation in public events is based on the fact that the Army belongs to the American people. Common ownership requires that Army resources be used to support events and activities of common interest and benefit. A successful community relations program enhances the community's perception of the Army and fosters an appreciation and spirit of cooperation for the military installation, the Soldiers and their families, and civilians who are part of the installation. Civic events that may be appropriate for Army band participation include parades, holiday and community concerts, sporting events, dedications, cultural events, and ribbon cutting ceremonies.

RECRUITING SUPPORT

Army bands are important recruiting tools that highlight the Army and support local recruiting activities. Musical selections may be drawn from many styles ranging from patriotic to popular music in a single performance. In accordance with AR 220-90, all Army bands in the Continental United States (CONUS) are directly charged to support recruiting efforts.

OTHER SUPPORT

In addition to the types of support previously mentioned, Army bands may participate in all events not prohibited by AR 360-1 and AR 220-90. These regulations as well as DODD 5500.7 also govern off duty participation in unofficial events.

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CHAPTER 5

INTERNAL ORGANIZATION OF ARMY BANDS

Although the following systems are neither formal nor standardized from one band to another, many bands use similar organizational structures for day-to-day activities. These structures often provide practical organization for such matters as accountability, administration, logistics, and maintenance details. The unit establishes the use of this chain of responsibilities:

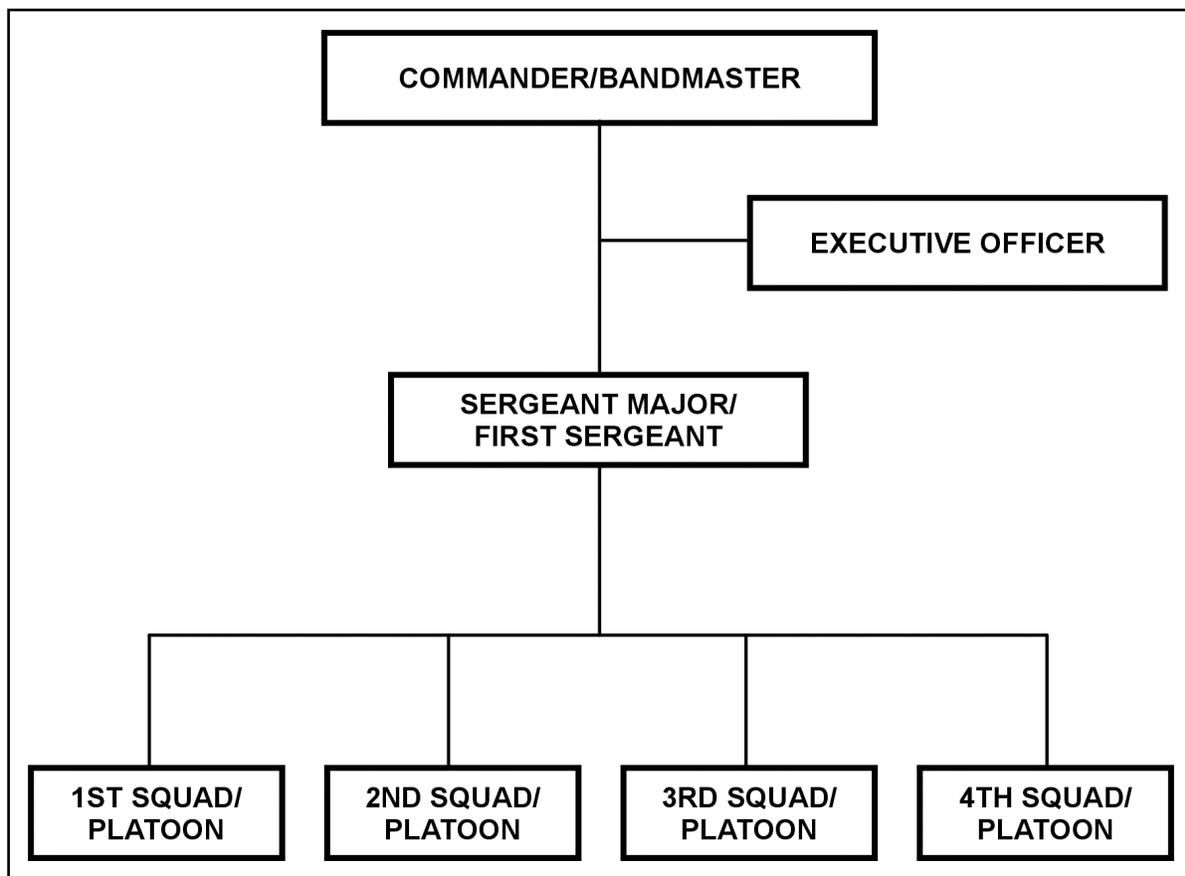


Figure 5-1. Band Organizational Chart

COMMON STAFF SECTIONS

As previously stated, administrative and support requirements will vary among bands, but there are certain areas of support that are common to most bands. Common installation and organization staff section areas are shown below, and it is important to note that many bands refer to their internal support sections by these designations. The scope of their activities may vary from place to place and from time to time, but this is a good starting point.

S-1. Personnel matters (Administration).

S-2/3. Operations, training, intelligence, security and ISSO. These S sections are often combined but may be split if their workload warrants.

S-4. Logistics (Supply).

S-5. Civil affairs. This section is not always present, depending on the command and the situation.

G-1 thru 5. These are the same as the **S** series, but on the staff of a general officer.

Administration (S-1). The admin section handles correspondence, publications maintenance, and reports. It acts as a liaison to the organization/installation personnel authorities. The first sergeant may elect to personally supervise this section. In most cases, though, a senior NCO leads the shop with one or more Soldiers functioning as clerks and assistants.

The workload for the administrative office depends somewhat on the strength of the band, the volume of correspondence, the volume of reports required, and, to a large degree, the competence of the staff. Though the Army is in the process of converting to a paperless system through electronic technology, many forms may still require manual input via the typewriter. Careful attention will eliminate the need to retype such documents.

Admin shops in bands assigned to divisions have a relatively light load. Generally, the shop assembles information for reports and communicates it informally to the parent company or battalion. The parent organization may also produce correspondence and manage records maintenance for the band. The actual working relationship between the parent organization and the band will be somewhat different with every organization and commander.

Highlights of the duties of the admin shop are:

- Correspondence.
- Reports.
- Publications.
- Filing.

Personnel Liaison. A Soldier in the administrative section often performs this function. Personnel liaison must be established and maintained since official personnel records are not maintained at the band. The primary concerns of the band admin section are to provide the personnel section of the organization or installation the information needed and to coordinate personnel actions.

Most correspondence for the band consists of memorandums, military letters, and military forms. Memorandums are used for most correspondence within the installation. It can be overprinted with routing formats for high volume correspondence to speed preparation. The military letter is used for more formal correspondence and to address another command. Uses and formats of both types are discussed in DA Pam 25-50, *Preparing and Managing Correspondence*. Specific forms, accompanied by instructions, cover most personnel inquiries, and units will often complete them in accordance with their standard operating procedures.

The amount of routine reports depends a great deal on the command. The system currently in use is actually a series of reports involved with eMILPO, the Electronic Military Personnel Office. This is a web-based system for reporting personnel actions that will require little training. The information the unit provides for eMILPO is fed into a computer system. This information is then extracted by various agencies such as Force Development, Finance, and Personnel as needed.

This diminishes the number of month-end reports that were previously required and provides personnel support sections with a direct line to HQDA.

Publications. Filing is an easy task for the admin section if the unit files are properly set up and kept current. Since bands are TOE units, AR 25-400-2, *Army Records Information Management System* (ARIMS), is the regulation governing file maintenance. See the first sergeant or the admin NCO for help.

Band Operations (S-2/3). The generally accepted duty of the operations section of a band is to coordinate the details for commitments. The mission and scope of responsibilities vary greatly among bands. Although MU 4100, *Band Operations*, correspondence sub-course, outlines the operational requirements, few standardized directives concerning band commitments exist, and none exist to establish or govern a band operations section. The bandmaster establishes and defines the job of the section. While some bandmasters prefer to coordinate all commitments personally, others may prefer to delegate the coordination of all but the most sensitive commitments. In any case, it is the responsibility of the section to operate within the policies established by the commander.

The operations section's Standard Operating Procedure (SOP) should establish procedures for commitment coordination. The SOP should be developed after thorough research of local command policy, transportation services, annual commitment load and patterns, band capabilities, and any other factors likely to affect efficient commitment operations. This SOP should be reviewed and updated annually, at a minimum.

Due to the sensitivity of the job, a senior NCO usually heads the operations section. Assistant operations sergeants are sometimes appointed, primarily to assist with commitment coordination details. Special bands have people who are specifically assigned for this duty, but most bands utilize NCOs already assigned to the unit.

Training (S-2/3). The training section in a band is generally responsible for helping the commander implement and monitor training. It is usually tasked with maintaining a training publications library, preparing school applications, keeping training records, advising the commander of training needs, filing lesson plans, and other miscellaneous duties associated with training.

The training NCO should establish contacts with the battalion S-2/3 section or the post Directorate of Plans, Training, and Security. Close liaison with these points of contact will keep unit training in accordance with appropriate standards because requests for rifle range, the PT course, and other qualification ranges fall under their responsibility. They will also help the band establish a training library and prepare for an inspection. They are full time training specialists, and they are available to assist subordinate units.

Formal training records for weekly military training have not been required since the master training schedule was abolished several years ago. Many commanders find it convenient, however, to maintain some sort of informal record within the unit. You may be asked to keep a personal training file on all band Soldiers (see AR 350-1, *Army Training and Education*). Additionally, some mandatory subjects must be posted to each Soldier's personnel record.

The first sergeant or commander may require assistance with the weekly training schedule. In some instances they will need only coordination, lesson plans, and facilities for general military training from the training office and will prepare the schedule themselves.

Performance-oriented training is an area in which training NCOs must become experts. Study the Army Training Requirements and Resources System (ATRRS) intensively. *The Standard Army Training System* (SATS) is used to report and track unit specific training execution information. When properly used, the SATS program provides detailed information on training requirements and will provide instant feedback to the superior command.

Supply (S-4). The mission of the supply section is to requisition, store, maintain, account for, and issue material property of the band. Although the scope of duties will vary, most supply sections also coordinate building repairs, clothing repair and exchange, laundry, and other miscellaneous tasks. The scope and mission of the supply shop depend a great deal on the organization to which the band is assigned or attached. In non-division bands, the bandmaster is both the primary hand receipt holder and the Property Book Officer. Conversely, in division bands, the Division Property Book Officer is the band's property book officer and the bandmaster is the primary hand receipt holder. All equipment is maintained at the band's facility and an NCO from the band's supply section functions as the liaison between the band and the parent company supply section.

Maintenance. User maintenance will be restricted to the cleaning and lubrication of an assigned instrument. Repairs or required maintenance will be referred to a qualified instrument repairperson. Exception to this policy will be allowed only with the approval of the bandmaster. **Note:** see *STP for a specific instrument*.

Library. The library is a section that is found in every band and often operates under S-4 procedures. Its mission is the procurement, storage, accountability, and issue of music and instructional materials. Regardless of the type of band (Special, General Support, or Direct Support), an efficient library is the crucial to the band.

An NCO usually manages the library with the assistance of one or more Soldiers. The number of Soldiers assigned depends on the amount of music routinely issued. All should be trained in filing and accountability procedures.

Task 514-464-2191 listed in STPs,-12-SM-TG, discusses library procedures and should be the principal reference. The library NCO should develop a library SOP that adapts those procedures to the unit's particular needs.

Sound Reinforcement. This section assesses sound reinforcement requirements and coordinates with operations staff to determine the availability of on-site sound reinforcement equipment. An NCO, assisted by one or more Soldiers, usually manages this section and is responsible for determining the feasibility of on-site equipment and the additional, if necessary, equipment to be taken by each performing group to a commitment. **Note:** see *STP 12-02B-02U-34-SM-TG Musical Task 514-468-3301, skill level 3* for additional information.

ASSUMING AND PERFORMING SUPPORT FUNCTIONS

NCO's in bands often find themselves assigned to new support functions. It is very important to unit efficiency that these roles be learned as quickly as possible.

Learning by Apprenticeship. It is easiest to learn a new job from the Soldier currently occupying that position. To make the transition as speedy and efficient as possible, try to obtain information from your colleague systematically. Here are some suggestions:

- Determine the mission.
- Determine the key aspects of the job.
- Learn how the job relates to other sections.
- Read the SOP/continuity book. A well-written SOP details job concepts immediately.
- Take detailed notes during training.
- Ask any questions that may come to mind.
- Memorize main information sources and become acquainted with pertinent publications.
- Request introductions to important contacts for your job in company, battalion, and installation staff offices.
- Ensure that contact phone numbers and email addresses are accurate.
- Observe the daily routine in your section.
- Refrain from implementing changes in procedure until your position in the office has been securely established.

Individual Learning. This may be necessary when the previously responsible Soldier is gone. In other instances, it may be a new requirement for which there is very little precedent. In any case, do plenty of research and use initiative. Taking over a new shop is not easy, but the challenge should be exciting. The first thing to do is determine the purpose of the job. If no SOP exists for the position, start from scratch.

Ask the commander or first sergeant why you were appointed, what directive prompted the appointment, and if there are any publications prescribed. Use DA Pam 310 series to research any publications pertaining to the job. Consult the Reimer Digital Library, United States Army Publishing Agency, or your Army Electronic Library disk set for publications not maintained by the administrative section. If this is a permanent assignment, order the publications. Check the directory of command organizations for offices and agencies that can be of assistance. If the functions of these agencies appear vague, ask a supervisor or the first sergeant for help.

Non-commissioned officers must remember that the support and management of an Army band can be a complex procedure. The requirements vary greatly from band to band, but one thing is always certain; the bandmaster/commander *cannot and should not* do everything.

Non-commissioned officers have a responsibility to the unit to do everything possible to aid the smooth running of the band.

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GLOSSARY

Section I Abbreviations

ATRRS	Army Training Requirements and Resources System
DOD	Department of Defense
SATS	Standard Army Training System
STP	Soldier Training Publication
USAMDW	United States of America, Military District of Washington

Section II Terms

Aulos: Greek ancestor of modern oboe with six finger holes and a double reed.

Buccina: A common name for a trumpet ancestor prior to the eleventh century (also: lituus, cornu, and shofar).

Buisine: A medieval straight trumpet.

Chalumeau: Forerunner of the clarinet dating back to 2700 B.C. Egyptian reliefs.

Clarion: Eleventh century trumpet with a long, slim, cylindrical tube and conically flared bell.

Fagotto: Bassoon (also: fagot).

Hautbois: Eighteenth century experimental oboe

Helicon bass: Predecessor to the modern Sousaphone.

Jadghorn: Large, natural horns worn over the shoulder used in early German orchestras.

Pibgorn: Modified chalumeau used in European countries

Sacabuche: Spanish term for "drawpipe."

Sackbut: Superceded the slide trumpet in the sixteenth century.

Serpent: Predecessor of the tuba.

Shawm: An instrument that had great developmental influence on the oboe.

Tromba da tirarsi: A type of slide trumpet.

Waldhorn: First horn to use crooks to extend note range.

Zurich: The Eastern shawm.

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REFERENCES

RELATED PUBLICATIONS

Related publications are sources of additional information. They are not required in order to understand this publication. This list is not intended to be all-inclusive.

Army Regulations

AR 220-90	Army Bands
AR 350-10	Army Training Requirements and Resources System
AR 360-1	The Army Public Affairs Program
AR 600-25	Salutes, Honors, and Visits of Courtesy
AR 600-8-1	Army Casualty Reporting And Memorial Affairs And Line Of Duty Investigations
TRADOC Reg 350-70	Standard Army Training System

Field Manuals

FM 12-50 (FM 1-19)	U.S. Army Bands
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Other Product Types

MUSCOLINST 1300.1	Audition Standards Manual
TVT 20-1116	DRUM MAJORING AND "THE MANUAL OF THE MACE," 24 June 1998
TVT 20-1125	SECTION REHEARSAL TECHNIQUES, 22 February 2000

Training Circulars

TC 12-41	Basic Music
TC 12-42	Harmony
TC 12-43	Percussion Techniques

PROFESSIONAL REFERENCES

General Music

- Apel, Willi. *Harvard Dictionary of Music*. Cambridge: The Belknap Press of Harvard University Press, 1972.
- Bartholomew, Wilmer. *Acoustics of Music*. New York: Prentice-Hall, Inc, 1942.
- Culver, Charles. *Musical Acoustics, 4th Ed*. New York: McGraw-Hill Book Co, 1956.
- Feldstein, Sandy. *Alfred's Pocket Dictionary of Music*. Sherman Oaks, CA: Alfred Pub. Co., Inc, 1985.
- Kohut, Daniel. *Musical Performance: Learning Theory and Pedagogy*. Englewood Cliffs, NJ: Prentice-Hall, Inc, 1985.
- Licks. *Standing in the Shadows of Motown*. Hal Leonard, 1989.

Rhythm

- Colin. *Rhythms*. Colin Publishing.
- Colin. *Rhythm Studies, (Books I, II, and Advanced)*. Charles Colin.
- Gates. *Odd Meter Etudes for Treble Clef Instruments*. Sam Fox Publishers.
- Ostrander, Allen. *Shifting Meter Studies*. Southern Music Co.

Stylistic Studies

- Coker, Jerry. *Improvising Jazz*. Englewood Cliffs, NJ: Prentice-Hall, 1964.
- Coker, Jerry. *Listening to Jazz*. Englewood Cliffs, NJ: Prentice-Hall, Inc, 1978.
- Coker, Jerry. *Patterns for Jazz*. Lebanon, IN: Studio P/R, Inc, 1970.
- Gornston. *Progressive Swing Readings, (Vol. I and II)*. Mayfair Music Corp.
Jamey Aebersold Collection.
- Raph. *Dance Band Reading and Interpretation*. Carl Fischer, Inc.
- Violo. *Technique for Jazz, (Vol. I and II)*. Berklee Press.

Technical Studies

- LaFosse. *School of Sight Reading and Style*. M. Baron Co.

Brass Related

- Clevenger. *Method, (Books I and II)*. Neil A. Kjos Music Co.
- Colin. *Brass Notes*. C. Colin.
- Colin/Bower. *Rhythms for All Bass Clef Instruments*. C. Colin.
- Farkas. *The Art of Brass Playing*. Wind Music, Inc, 1962.
- Mendez, Rafael. *Prelude to Brass Playing*. Boston, MA: Carl Fischer, Inc, 1961.
- Moore. *The Brass Book*. G. Leblanc Co.
- Parker, Charlie. *Charlie Parker Omnibook*. Atlantic Music Corp, 1978.
- Singer. *Embouchure Building*. Belwin Mills Corps.
- Smith. *Lip Flexibility*. Carl Fischer, Inc.
- Smith. *Methods of Teaching Brass*. The University of Southern California.
- Sweeny. *Teaching Techniques for Brass*. Belwin Mills.
- Wright. *Brass Today*. Besson & Company, Ltd.

Woodwind Related

- Baines, Anthony. *Woodwind Instruments and Their History*. New York: W.W. Norton & Co., Inc, 1957.
- Carse, Adam. *Musical Wind Instruments*. New York: DaCapo Press, Inc, 1965.
- Culver, Charles. *Musical Acoustics, 4th Ed*. New York: McGraw-Hill Book Co, 1956.
- Daubeny, Ulric. *Orchestral Wind Instruments*. Freeport, NY: Book for Libraries Press, 1970.
- Opperman. *Handbook for Making and Adjusting Single Reeds*. Chappell Music Co, Inc.
- Palmer. *Teaching Techniques of the Woodwinds*. Belwin Mills Publishing Co.
- Stauffer, Donald. *Intonation Deficiencies of Wind Instruments in Ensemble*. Washington: Catholic Univ. of America Press, 1954.
- Westphal, Frederick. *Guide to Teaching Woodwinds, 5th Ed*. Dubuque, IA: W. C. Brown. Co, 1990.

Percussion Related

- Abel, Alen. *20th Century Orchestra Studies for Percussion*. New York: G. Schirmer, Inc, 1970.
- Blades, James. *Percussion Instruments and Their History*. London; Boston: Faber & Faber, 1984.
- Firth. *Percussion Symposium*. Carl Fischer.
- Bartlett, Harry. *Guide to Teaching Percussion*. Debuque, IA: W. C. Brown Co, 1964.
- Payson and McKenzie. *Guide to Percussion*. Belwin, Inc, 1966.
- Payson and McKenzie. *Percussion in the School Music Program*. Payson Percussion Products, 1976.
- Raph. *Dance Band Reading and Interpretation*. Carl Fischer, Inc.
- Tilles. *Practical Improvisation*. Belwin.

42R9B (TRUMPET)

Arban, Jean-Baptiste. *Arban's Complete Conservatory Method for Trumpet*. New York: C. Fischer Inc. 1936.

Bandsman's Studio for Trumpet, (Books I – V). Carl Fischer, Inc.

Bate. *The Trumpet and Trombone*. Ernest Benn Ltd.

Bellamah. *A Trumpeter's Treasury of Information*. Southern Music Co.

Bush. *The Artistic Trumpet*. Highland Music Co.

Clarke. *Technical Studies*. Carl Fischer, Inc.

Gibson. *A Textbook for Trumpet*. Schmitt, Hall, and McCreary Co.

Gordon, Claude. *Systematic Approach to Daily Practice*. New York: Carl Fischer, Inc, 1968.

Nagel, Robert. *Speed Studies*. Brookfield, CT: Mentor Music, 1965.

Schlossberg, Max. *Daily Drills and Technical Studies for Trumpet*. New York: M. Baron Co, 1941.

Spaulding. *Double High C in 37 Weeks*. High Note Studios, Inc.

Stevens/Moriarty. *Embouchure Self Analysis and The Stevens – Castillo Triple C Embouchure Technique*. Harold Branch Publishing Co.

42R9C (EUPHONIUM)

Blazhevich. *Clef Studies*. Belwin-Mills Publishing Corp.

Blecer. *31 Brilliant Etudes*. Carl Fischer, Inc.

Blume. *36 Studies*. Carl Fischer, Inc.

Brasch. *The Euphonium and 4-Valve Brasses*. Harold Brasch.

Couilland. *24 Melodious Etudes*. M. Baron Co.

Fink. *Introducing the Bass Clef*. Accura Music.

Fink. *Introducing the Treble Clef*. Accura Music.

Kopprasch. *Sixty Studies*. Carl Fischer, Inc.

Ostrander, Allen. *Shifting Meter Studies*. Southern Music Co.

Rochut. *60 Melodious Etudes*. Carl Fischer, Inc.

Arban. *Arban's Complete Method for Trumpet/Trombone*. Carl Fischer, Inc.

42R9D (FRENCH HORN)

Andraud. *Selected Melodious Progressive and Technical Studies for French Horn*. Southern Music Co. 1958.

Farkas. *The Art of Horn Playing*. Wind Music, Inc, 1962.

Gregory. *The Horn*. G. Schirmer.

Kopprasch. *60 Studies, (Vol. I and II)*. Carl Fischer, Inc.

Maxime/Alphonse. *Studies, (Books I –III)*. Alphonse Leduc.

Mueller. *22 Etudes, Opus 64*. Belwin Mills Corp.

Pottag/Andraud. *Selected Studies*. Belwin Mills Corp.

Sansone. *Modern Method, (Books I and II)*. Southern Music Co.

Schuller. *Horn Techniques*. Oxford University Press.

42R9E (TROMBONE)

Amsden, Arthur. *Celebrated Practice Duets*. Oskaloosa, IA: C. L. Barnhouse, 1918.

Arban, Jean-Baptiste. *Trombone Method*. New York: Carl Fischer, Inc, 1936.

Bach. *Embouchure and MP Manual*. Vincent Bach Corp.

Bate. *The Trumpet and Trombone*. Ernest Benn Ltd.

Bernard. *Method Complete pour Trombone Basses, Tuba, Saxhorns Basses et Contrebasse*. M. Baron Co.

Blazhevich, Vladislav. *Clef Studies*. New York City, NY: International Music Co, 1957.

Blazhevich, Vladislav. *Concert Duets*. New York City, NY: International Music Co, 1950.

Blume. *36 Studies for Trombone with F Attachment*. Carl Fischer, Inc.

Blume. *12 Melodious duets*. Carl Fischer, Inc.

Colin. *Advanced Lip Flexibilities*. C. Colon Press.

Kleinhammer. *The Art of Trombone Playing*. Summy-Birchard Co.

Kupprasch. *Sixth Studies for Trombone (Books 1 & 2)*.

Raymond. *The Trombone and Its Player*. Carl Fischer, Inc.

Schlossberg, Max. *Daily Drills and Technical Studies for Trombone*. New York: M. Baron Co, 1947.

42R9F (TUBA)

- Arban, Jean Baptiste. *Arban's Complete Method for Tuba*. Carl Fischer, Inc.
- Bach. *Bach for the Tuba, (Vol. I and II)*. Western International Music.
- Bell. *Foundation to Tuba and Sousaphone Playing*. Carl Fischer, Inc.
- Bernard. *Forty Etudes*. M. Baron Co.
- Bernard. *Method Complete pour Trombone Basses, Tuba, Saxhorns Basses et Contrebasse*. M. Baron Co.
- Blazhevich, Vladislav. *70 Studies for BB-flat Tuba, (Vol. I and II)*. North Easton, MA: Robert King Music
- Bona. *Rhythmic Articulation*. Carl Fischer, Inc., 1969.
- Bordogni. *70 Studies for BB-flat Tuba, (Vol. I and II)*. Robert King Music Co.
- Cimera, Jaroslav. *73 Advanced Tuba Studies*. Melville, NY: Belwin Mills Publishing Corp, 1980.
- Eby. *Eby's Scientific Method*. Walter Jacobs, Inc.
- Fink, Reginald. *Studies in Legato*. New York: Carl Fischer, Inc, 1969.
- Getchell, Robert. *Practical Studies for Tuba (2 books)*. Miami, FL: Belwin Mills Publishing Corp, 1980.
- Kopprasch, G. *60 Etudes*. North Easton, MA: Robert King Music Co, 1983.
- Kuehn, David. *60 Musical Studies for Tuba, (Vol. I and II)*. San Antonio, TX: Southern Music Co, 1980.
- Keuhn, David. *28 Advanced Studies for Tuba*. San Antonio, TX: Southern Music Co.
- Maenz. *Zwölf Spezialstudien for Tuba*. Chappell and Co, Inc.
- Sear. *Etudes for Tuba*. Cor Publishing Co.
- Tyrrell. *Advanced Studies for BB-flat Bass*. Chicago, IL: Boosey & Hawkes.
- Vandercook. *Vandercook Etudes for Tuba*. Rubank Inc.
- Vasiliev. *24 Melodious Etudes for Tuba*. Robert King Music Co.

42R9G (FLUTE)

- Anderson. *24 Studies, Op. 33 & 15*. Carl Fischer, Inc.
- Anderson. *Virtuosity Studies, Op 60*. Southern Music Co.
- Bandsman Flute Repertoire (Vol. 1 & 2)*. Carl Fischer, Inc.
- Cavally. *Melodious and Progressive Studies for Flute, (Vol. I-III)*. Southern Music Co.
- Chapman. *Flute Technique*. Oxford Press.
- Furstenau. *Studies, Op 125*. Belwin Mills Publishing Corp.
- Kajaka. *The Flutist's Progress*. W.T. Armstrong Co.
- Moyse. *Tone Development Through Interpretation*. McGinnis and Marx.
- Pellerite. *A Modern Guide for Fingerings for the Flute*. Zalo Publications.
- Putnik. *The Art of Flute Playing*. Summy-Brichard Co.
- Soussman-Popp. *24 Grand Studies*. Carl Fischer, Inc.
- Taffanel & Gaubert. *Method Complete de Flute*. Alphonse Leduc.
- Taylor. *The Flutist's Classic Repertoire*. Warner Brothers Publishing.
- Violo. *Technique for Jazz*. Berklee Press.
- Wagner. *Foundations to Flute Playing*. Carl Fischer, Inc.
- Westphal. *Guide to Teaching Woodwinds*. Wm. C. Brown Co.
- Wood. *Studies for the Execution of Upper Notes*. Boosey & Hawkes.

42R9H (OBOE)

- Andraud, Albert. *Vade-Mecum of the Oboist, 7th Ed.* San Antonio, TX: Southern Music Co, 1967.
- Arcamone. *12 Studies for Oboe.* G. Ricordi & Co.
- Bassi. *27 Virtuoso Studies.* Carl Fischer, Inc.
- Baumgartel. *Richard Strauss Oboe Studies.* C. F. Peters.
- Belinsky. *Oboe and English Horn Solos from Orchestral Repertoire.* M. Baron Co.
- Bozza. *18 Studies for Oboe.* M. Baron Co.
- DeLancie, John. *20th Century Orchestra Studies for Oboe & English Horn.* New York: G. Schirmer, 1973.
- Ferling, Franz. *48 Famous Studies for Oboe or Saxophone.* San Antonio, TX: Southern Music Co, 1958.
- Gillet, Georges. *Studies for the Advanced Teaching of Oboe.* Paris: A. Leduc, 1936.
- Labate, Bruno. *Etudes and Scales for Advanced Oboists.* New York: Carl Fischer, Inc, 1962.
- Labate, Bruno. *Sixteen Daily Studies for Oboe.* New York: Carl Fischer, Inc.
- Light, Jay. *The Oboe Reed Book.*
- Pepe. *On Obtaining a Good Oboe.* Ernest Benn, Ltd,
- Rossari. *53 Melodious Etudes (Books 1 & 2).* Southern Music.
- Rothwell, Evelyn. *Difficult Passages for Oboe.* London; New York: Boosey and Hawkes, 1970.
- Rothwell, Evelyn. *Oboe Technique.* Jack Spratt Woodwind Supplies.
- Rothwell, Evelyn. *The Oboist's Companion.* London: Oxford University Press, 1974.
- Russell. *Oboe Reed Making and Problems of the Oboe.* Jack Spratt Woodwind Supplies.
- Sprenkle, Robert/Ledet, David. *The Art of Oboe Playing.* Evanston, IL: Summy-Brichard, 1961.

42R9J (CLARINET)

- Baermann. *Divison III.* Carl Fischer, Inc.
- Bellison, Simeon. *H. Klose-Celebrated Method for Clarinet.* New York: Carl Fischer, Inc, 1946.
- Cavallini, Ernesto. *30 Caprices for Clarinet.* Paris: A. Leduc, 1953.
- Gallodoro. *Saxophone-Clarinet Notebook.* H. & A. Selmer, Inc.
- Hite, David. *Artistic Studies Book I for Clarinet.* Carl Fischer, Inc.
- Kroll. *The Clarinet.* Taplinger Publishing Co., Inc.
- Perier. *22 Etudes.* M. Baron. Co.
- Perier. *30 Etudes.* M. Baron Co.
- Polaschek. *Advanced Etudes for the Clarinet.* G. Schirmer, Inc.
- Rose. *20 Etudes after Roda.* Carl Fischer, Inc.
- Rose. *40 Etudes, (Books I and II).* Carl Fischer, Inc.
- Stein. *The Art of Clarinet Playing.* Summy-Brichard.
- Thruston, Frederick. *Clarinet Technique, 3rd Ed.* London; New York: Oxford University Press, 1977.
- Wiedemann. *32 Clarinet Studies.* G. Schirmer, Inc.
- Willaman. *The Clarinet and Clarinet Playing.* Carl Fischer, Inc.

42R9K (BASSOON)

- Bertoni, Umberto. *12 Studies for Bassoon*. New York: International Music Co, 1971.
- Bianchi, Virginio. *12 Etudes for Bassoon*. New York: G. Schirmer, Inc, 1971.
- Bitsch. *20 Etudes for Bassoon*. M. Baron Co.
- Bozza. *15 Daily Studies for Bassoon*. M. Baron Co.
- Davies. *Scales and Arpeggios for the Bassoon*. Boosey and Hawkes.
- Dubois, Pierre. *12 Studies for Bassoon*. Paris: A. Leduc, 1957.
- Gambaro, J.B. *18 Studies*. New York: International Music Co, 1951.
- Jancourt, Eugene. *26 Melodic Studies*. New York: International Music Co, 1956.
- McDowell. *Practical Studies (Books I and II)*. Belwin Mills Publishing Co.
- Milde, Ludwig. *Concert Studies for Bassoon, Op. 26*. New York: International Music Co, 1948.
- Orefici, Alberto. *20 Melodic Studies for Bassoon (Studies and Exercises)*. New York: International Music Co, 1966.
- Oubradous, F. *Technical Exercises Part for Independence of Fingers*.
- Piard, Marius. *16 Characteristic Studies for Bassoon*. New York: International Music Co, 1950.
- Piard. *24 Studies for the Bassoon*. International Music Co.
- Piard. *90 Studies, (Three Volumes)*. M. Baron Co.
- Pivonka. *Rhythmic Studies for Bassoon*. Frank Music Corp.
- Popkin, Mark/Glickman, Loren. *Bassoon Reed Making*. Evanston, IL: The Instrumentalist Co, 1969.
- Spencer/Mueller. *The Art of Bassoon Playing*. Summy-Brichard.
- Waterhouset. *30 Classical Studies*.
- Weait. *Bassoon Warm-ups*.
- Weissenborn, Julius. *Practice Method for Bassoon*. New York: Carl Fischer, Inc, 1941.

42R9L (SAXOPHONE)

- Bassi. *27 Virtuoso Studies*. Carl Fischer, Inc.
- Blemant. *20 Melodic Etudes*. M. Baron Co.
- Bozza. *12 Etudes Caprices*. M. Baron Co.
- Cavallini-Iasilli. *30 Caprices*. Carl Fischer, Inc.
- Chauvet. *Etudes for Saxophone*. M. Baron Co.
- Debondue. *25 Sight Reading Studies*. Alphonse Leduc Co.
- Debondue. *50 Sight Reading Studies*. Alphonse Leduc Co.
- DeVille. *Universal Method for Saxophone*. Carl Fischer, Inc.
- Ferling-Mule. *48 Etudes*. M. Baron Co.
- Gabucci-Allard. *60 Varied Etudes*. Belwin Mills Publishing Corp.
- Gallodoro. *Saxophone-Clarinet Notebook*. H. & A. Selmer, Inc.
- Hemke. *A Comprehensive Listing of Saxophone Literature*. H. & A. Selmer, Inc.
- Klose. *Complete Method for All Saxophones*. M. Baron Co.
- Klose. *25 Daily Exercises for Saxophone*. Carl Fischer, Inc.
- Labanchi, Gaetono. *33 Concert Etudes for Saxophone*. New York: Carl Fischer, Inc, 1934.
- Lacour. *28 Etudes*. Theodore Presser Co.
- Lacour. *Eight Brilliant Etudes*. M. Baron Co.
- Levine, Mark. *The Jazz Theory Book*.
- Londeix, Jean Marie. *Nouvelles Etudes Variees*.
- Luckey, Robert A. *Saxophone Altissimo, high note development for the contemporary player*.
- Mintzer, Bob. *Playing the Saxophone; 14 Jazz & Blues Etudes*.
- Mule. *Mule Studies and Arpeggios, (Vol. 1-3)*. M. Baron Co.
- Mule, Marcel. *Dix Hiut Exercises ou Etudes after Bergiguer*. M. Baron Co.
- Nash. *Studies in High Harmonics*. MCA Music Corp.
- Pares. *Daily Technical Exercises and Complete Course of Scale Studies for Saxophone*. Carl Fischer, Inc.
- Pares. *Grand Collection of Scales, Arpeggio Exercises, and Studies for Saxophone*. Carl Fischer, Inc.
- Rascher. *158 Exercises*. Hanson Publications.
- Rascher. *Top Tones for Saxophone*. Carl Fischer, Inc.
- Schmidt. *Ten Contemporary Etudes*. Avant Music.
- Small. *27 Melodius and Rhythmical Exercises*. Carl Fischer, Inc.
- Soussman-Mule. *Thirty Grand Exercises or Studies after Soussman*. M. Baron Co.
- Teal. *The Art of Saxophone Playing*. University Music Press.
- Teal. *The Saxophonist's Workbook*. University Music Press.
- Terschak-Mule. *Daily Exercises*. M. Baron Co.
- Traxler. *Grand Artistic Saxophone Duets*. Mills Publishing Corp.
- Wilensky, Danny. *Saxophone Technique*.

42R9M (PERCUSSION)**Snare:**

- Albright. *Contemporary Studies for the Snare Drum*. Alder.
- Bower. *Imperial Method for Drum*. Presser.
- Fink. *Drum Set Reading*. Alfred Publishing Co.
- Frank Malabe and Bob Wetner. *Afro-Cuban Rhythms for Drummers*. Manhattan Music, 1990.
- Goldberg. *Modern School for Snare Drum*. Belwin Mills.
- Mitchell Peters. *Advanced Snare Drum Studies*. Mitchell Peters, 1979.
- Payson. *Snare Drum in the Concert Hall, The*. Payson Percussion Products.
- Phil Perkins. *Logical Approach to Snare Drum (2 Vols.)*. Logical Publications, 1980.
- Podemski. *Podemski's Standard Snare Drum Method*. Belwin Mills.
- Stone, George. *Stick Control: for the Snare Drummer*. Boston, MA: George B. Stone and Sons, 1935.

Tympani/Mallet:

- Bailey. *Mental & Manual Calisthenics for the Modern Mallet Player*. Belwin.
- Friese and Lepak. *Timpani Method*. Belwin Mills.
- Gardner. *The Gardner Method for Timpani*. Fischer.
- Goldenberg. *Modern School for Xylophone, Marimba, and Vibraphone*. Chappell.
- Goodman. *Modern Method for Timpani*. Mills.
- Gornston. *Foundation Studies for Xylophone, Marimba, and Vibe*. Gornston.
- Kraus. *Modern Mallet Method, (Books II & III)*. Belwin.
- McMillan. *Basic Timpani Techniques*. Pro-Art.
- Payson, Al. *Progressive Studies in Double Stops for Mallet Instruments*. New York: Music for Percussion, 1967.
- Press. *Mallet Repair*. Belwin Mills, Inc.
- Ron Delp. *Vibraphone Technique*. Sternberg.
- Whaley. *Fundamental Studies for Mallet Instruments*. Joel Rothman.

Drum Set:

- Pace. *Variations of Drumming*. Drum Book Music.
- Paisner. *Thirty Studies in Swing*. Gornston.
- Sternberg. *Modern Drum Studies*. Alfred Music Co.
- Steve Houghton. *Studio and Big Band Drumming*. C. L. Barnhouse, 1985.
- Wickstrom. *Latin Percussion Techniques*. Payson Percussion Products.
- Wilcoxson. *All American Drummer*. Charles Wilcoxson.

General Percussion:

- Burns-Feldstein. *Advanced Percussion Solos, Book I*. Adler.
- Chapin. *Advanced Techniques for the Modern Drummer*.
- Dorn. *Reading and Technical Studies for the Advanced Player*. Belwin.
- Fennel. *The Drummer's Heritage*. Fischer.
- Grossman. *Book of Today's Drumming*. Amsco Music Publishing Co.
- Harte. *Swing Reading for Drummers*. NR Music Co.
- Lincoln Goines and Robby Ameen. *Funkifying the Clave – Afro-Cuban Grooves for Bass and Drums*. Manhattan Music, 1990.
- Ludwig. *NARD Solo Collection*. Ludwig Publishing Co.
- Payson. *Techniques of Playing Bass Drum*. Payson Percussion Products.
- Payson and McKenzie. *Percussion in the School Music Program*. Payson Percussion Products, 1976.
- Reed. *Progressive Steps to Syncopation for the Modern Drummer*. Ted Reed.

42R9N (KEYBOARD)

- Coker, Jerry. *Jazz Theory Workbook*. Advance Music.
- Fink, Seymour. *Mastering Piano Technique*. Amadeus Press.
- Levine, Mark. *The Jazz Piano Book*. Sher Publishing.
- Newman, William S. *The Pianist's Problems*. Da Capo Press.
- Novello, John. *The Contemporary Keyboardist*. Source Productions.

42R9T (GUITAR)

- Baker. *Jazz Guitar, Book 2*. Lewis Music Pub.
- Bay. *Chord System for the Modern Orchestral Guitar*. Mel Bay Publishing Co.
- Kamimoto, Hideo. *Complete Guitar Repair*. New York: Oak Publications, 1975.
- Khan, Steve. *Contemporary Chord Concepts*. Manhattan Music Publications.
- Leavitt, William. *A Modern Method for Guitar*. Boston, MA: Berklee Press Publications, 1966.
- Leavitt, William. *Reading Studies For Guitar*. Boston, MA: Berklee Press Publications, 1966.
- Roberts. *Guitar Manual/Chord Melody*. Playback Publishing Co.
- Roberts. *The Guitar Book*. Playback Publishing Co.
- Salvador. *Single String Studies for Guitar*. Belwin-Mills Publishing Corp.
- Smith. *Aids to Technique for Guitar*. Charles Colin.
- Tedesco, Tommy. *Playing Guitar For A Living*.

42R9U (BASS GUITAR)

- Reading Contemporary Electric Bass Rhythms*. Berklee Press, 1983.
- Bower. *Bop Duets in Bass Clef*. Colin Publishing.
- Colin. *Rhythms in Bass Clef*. Colin Publishing.
- Del Puerto. *The True Cuban Bass*. Sher Music Co, 1994.
- Doerschuk. *Electric Bass Guitar*. GPI Publications, 1989.
- Liebman. *Funk Bass*. Hal Leonard.
- Liebman. *Funk/Fusion Bass*. Hal Leonard, 1996.
- Kaye. *Electric Bass Lines, No. 1*. Gwyn Publications, 1969.
- Kaye. *Electric Bass Lines, No. 2*. Gwyn Publications, 1970.
- Kaye. *Electric Bass Lines, No. 3*. Gwyn Publications, 1971.
- Lalasis. *Pizzicato Funk for Electric Bass*. Lacook Enterprises, 1984.
- Parker, Charlie. *Charlie Parker Omnibook for Bass Clef*. Atlantic Music Corp, 1978.
- Reid, Rufus. *The Evolving Bassist*. Teaneck, NJ: Myriad Limited, 1983.
- Sher. *Concepts for Bass Soloing*. Sher Music Co, 1993.
- Sterling. *Rhythm Section Studies for Bass*. Berklee Press.

42R9U Videos:

- Pastorious. *Modern Electric Bass*. DCI Music Video, 1991.
- Patitucci. *Electric Bass*. DCI Music Video, 1990.
- Patitucci. *Electric Bass 2*. DCI Music Video, 1990.
- Sklarevski. *The Slap Bass Program*. Video Progressions, 1989.

INSTRUMENTAL WEBSITES

This listing is not intended to be all-inclusive and some of the sites have extensive links pages. No endorsement by any government agency is implied in the inclusion of any link on this page.

42R9B Trumpet Websites:

Trumpet Player Online---<http://www.trb.ayuda.com/~dnote/Trumpet.html>
International Trumpet Guild---<http://192.189.65.5/~itg/>
Bugle Calls; Printed & Audio---<http://www.acc.af.mil/music/ceremonial/tunelist.html>
<http://bands.army.mil/music/bugle/default.asp>

42R9C Euphonium Websites:

Euphonium/Baritone WebRing---<http://www.webring.org/cgi-bin/webring?ring=tone;list>
T.U.B.A. Website---<http://www.tubaonline.org/>

42R9D French Horn Websites:

International Horn Society---<http://www.horndoggie.com/horn/>
French Horn WebRing---<http://www.webring.org/cgi-bin/webring?ring=paulhh&id=1&list>

42R9E Trombone Websites:

Trombone WebRing---<http://nav.webring.org/cgi-bin/navcgi?ring=trombone;list>
<http://www.trombone.org/>

42R9F Tuba Websites:

T.U.B.A. WebRing---<http://www.tubaonline.org/>
TubeNet---<http://www.chisham.com/>

42RG Flute Websites:

Flute WebRing---<http://www.webring.org/cgi-bin/webring?ring=fluteman;list>
Flute Links---<http://www.zyworld.com/Devina/Flute Page.htm>

42R9H Oboe Websites:

Oboe & Bassoon---<http://alcor.concordia.ca/~smw/kcb/english/instruments/oboe.html>
Double Reeds WebRing---<http://www.webring.org/cgi-bin/webring?ring=doublereed;list>

42R9J Clarinet Websites:

International Clarinet Society---<http://www.clarinet.org/index.htm>
The Clarinet Pages---<http://www.woodwind.org/clarinet/>
ABC Index---<http://www.anne-bell.woodwind.org/>

42R9K Bassoon Websites:

WebRing-----<http://www.webring.org/cgi-bin/webring?ring=bassoon;list>
Gail Warnaar Double Reeds---www.DoubleReedShop.com

42R9L Saxophone Websites:

Saxophone WebRing---<http://nav.webring.org/cgi-bin/navcgi?ring=saxappeal;list>
Single Reed WebRing---<http://nav.webring.org/cgi-bin/navcgi?ring=clarisax;list>

42R9M Percussion Websites:

Drummer's Web---<http://www.drummersweb.com/>
Cyber-Drum---<http://www.cyberdrum.com/>
Latin Percussion links---<http://www.cam.org/~raybiss/rhythms/4conga.html>
<http://www.percussion-world.com/links.shtml>

42R9N Keyboard Websites:

Keyboard Magazine----<http://www.keyboardmag.com>

Korg Websites--- <http://www.korg.com>

Midi Websites---- <http://www.midi.org>
<http://www.midiworld.com>

42R9T Guitar Websites:

Guitar Fox----<http://www.guitarfox.com/>

Major Guitar Websites----<http://www.guitarfox.com/guitarmajorsites.htm>

42R9U Bass Guitar Websites:

BassPlace----<http://www.bassplace.com>

<http://www.bassplayer.com>

Guitar tabs---<http://www.guitarsite.com/tab3.htm>

<http://www.jazclass.aust.com/>

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