

Special Studies for the Tuba

by Arnold Jacobs

I have included a page of exercises to be played on the mouthpiece without the Tuba. I believe this type of practice to have many benefits and recommend at least 5 to 10 minutes of playing before starting practice on the Tuba. This practice should include melodies as well as drill forms. Expanding the range, particularly in the high notes, is a great help to the player. Many times he will achieve success on the mouthpiece before he will on the Tuba, thereby making it easier to transfer the new ability to the instrument.

1- Mouthpiece Drill: To be played on mouthpiece alone. (as desired on tuba)

a) Musical notation for exercise a) in bass clef, key of B-flat major. The first staff contains a sequence of eighth notes: B-flat, A, G, F, E, D, C, B-flat, followed by a whole note B-flat. The second staff continues with eighth notes: A, G, F, E, D, C, B-flat, A, followed by a whole note B-flat. The word "simile" is written below the second staff.

b) Musical notation for exercise b) in bass clef, key of B-flat major. The first staff contains a sequence of eighth notes: B-flat, A, G, F, E, D, C, B-flat, followed by a whole note B-flat. The second staff continues with eighth notes: A, G, F, E, D, C, B-flat, A, followed by a whole note B-flat.

c) Musical notation for exercise c) in bass clef, key of B-flat major. The first staff contains a sequence of eighth notes: B-flat, A, G, F, E, D, C, B-flat, followed by a whole note B-flat. The second staff continues with eighth notes: A, G, F, E, D, C, B-flat, A, followed by a whole note B-flat.


d) Musical notation for exercise d) in bass clef, key of B-flat major. The first staff contains a sequence of eighth notes: B-flat, A, G, F, E, D, C, B-flat, followed by a whole note B-flat. The second staff continues with eighth notes: A, G, F, E, D, C, B-flat, A, followed by a whole note B-flat.


Stop for breath as needed


e) Musical notation for exercise e) in bass clef, key of B-flat major. The first staff contains a sequence of eighth notes: B-flat, A, G, F, E, D, C, B-flat, followed by a whole note B-flat. The second staff continues with eighth notes: A, G, F, E, D, C, B-flat, A, followed by a whole note B-flat.


f) Musical notation for exercise f) in bass clef, key of B-flat major. The first staff contains a sequence of eighth notes: B-flat, A, G, F, E, D, C, B-flat, followed by a whole note B-flat. The second staff continues with eighth notes: A, G, F, E, D, C, B-flat, A, followed by a whole note B-flat.

3- Interval Study: Transpose to all keys and play with various dynamics

a) 

b) 

c) 

d) 

This study is excellent for development of attack and extending the range in both directions:

e) 

Embouchure Building:

Continuous sound in itself is embouchure building and when it is carried throughout the range of the horn, (and we must include dynamic range as well as pitch range), we will certainly bring about embouchure strength. If we include fast changes of pitch in interval form as well as scale form, then we shall achieve our goal as velocity tends to refine the embouchure form and to reduce the amount of change in musculature involved.

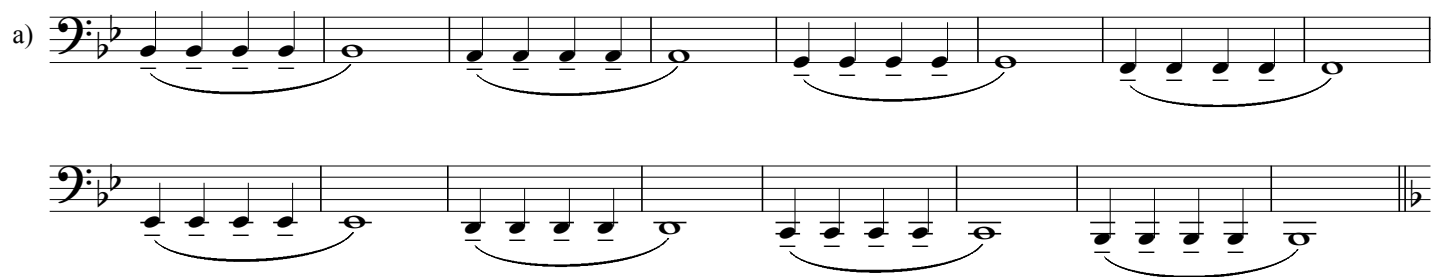
Tone Building:

One of the most important factors in approaching the tone building studies is to do so with a plentiful supply of air in the lungs, and to use a considerable volume level--forte or better. Great care must be used so that the tone doesn't sound force or strained.

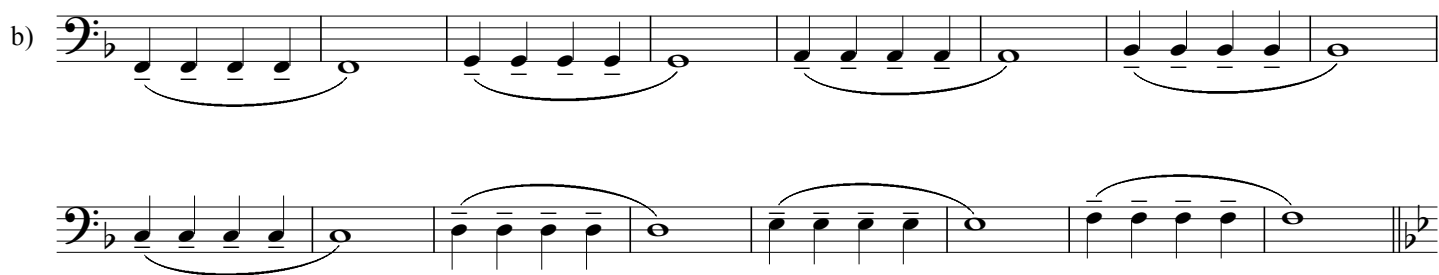
If the student cannot achieve the full phrase on one breath he should be permitted a second breath as needed. The sound must be of prime importance in these studies, and the length of phrase per breath should not be evaluated until considerable success has been achieved with the tone.

A constant effort must be made by the student to think musically. He should develop the ability to hear the sound in his mind that he wants to hear from his tuba. This is a tremendously important concept and should be encouraged by renewing it daily.

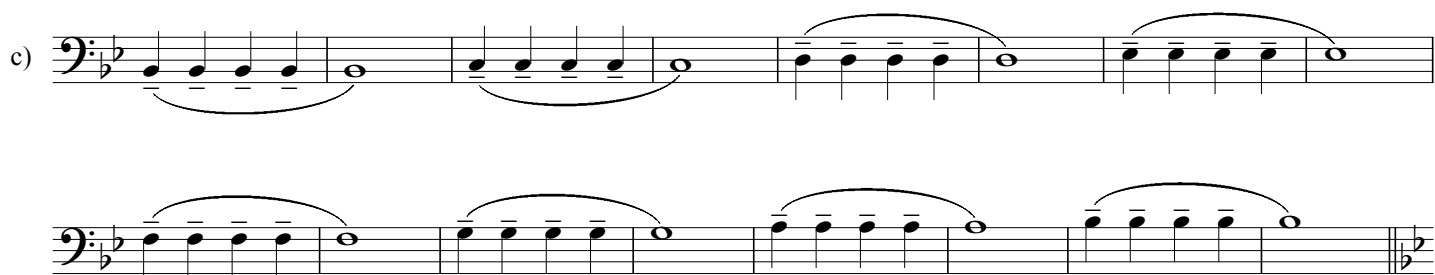
a)



b)



c)



d)



To be practiced at one dynamic level; also crescendo, decrescendo and decrescendo, crescendo.

e)

The exercise consists of ten staves of music in bass clef. Each staff contains two measures of music, with a repeat sign at the end of each. The first measure of each staff typically features a chromatic ascending or descending scale, while the second measure features a diatonic ascending or descending scale. The key signatures vary across the staves, including one flat, two flats, three flats, one sharp, and two sharps. Slurs are used to group the notes in each measure, and repeat signs are placed at the end of each staff.

Scale Studies:

This study is an excellent means of keeping up on scales, but is of even greater value when used to improve quality of tone by playing the Etude rather slowly and smoothly. It is beneficial to practice these scales first rather full in tone, and then reduce the volume to piano and still strive to keep your finest concept of tone. Somewhat like turning the volume control down on your radio -- less sound but not altered sound. Practice this rapidly as well as slowly. I have indicated a variety of articulations. These may be practiced as one articulation for the entire study for the day. The next day use a different articulation, until all of them have become a part of the player's variety of articulation. This study should be used for practice in both piano and pianissimo as well as forte. As with most studies it is wise to vary the dynamics a great deal and in many ways.

a)

The musical score consists of ten staves of music in bass clef. The key signature starts with one flat (B-flat major) and changes to two flats (B-flat minor) in the fifth staff. The scale is played in both ascending and descending directions. The notation includes various articulations such as slurs, ties, and accents.



Articulations for the above study:



7- Etude 4/4-

This Etude is of benefit in developing a good entrance of tone over a large range. It is of particular value in the lower range. In practicing this Etude great care must be used to develop an even tone, and a consistently good quality of sound in all registers. I recommend that the student use a wide variety for the study, ranging from *p* to *f* or *ff*.



8. Etude 6/8- This Etude is one of the best for bringing about good form to the embouchure. In its early development, speed is not important, nor is the attack to be evaluated. We do want good attack and good sound with increasing proficiency. This study can be played faster. I recommend a variety of articulations and dynamics for this study. This Etude should also be practiced Legato .



The above Etude should also be played with the following rhythms:



9. Etude 3/2- Development of Low Range and Resonance-

This Etude should be considered as a medium for the development of a resonant low range. It should be practiced in a very slow 3 or moderate 6 to the bar. The low E \flat can be played as a privileged note by using the open position (no valves). This works on most BB \flat tubas. If the player is unable to produce the E \flat then I suggest changing all E \flat to F. Although this changes the Etude somewhat, it is worth it, as there is benefit to be found in the practice of such low notes

I prefer to think of high and low notes as fast and slow vibrations. It will be found that the space between the teeth widens for the low notes. However, I would not depend on this maneuver to produce the low notes in itself, as the embouchure transition does not necessarily follow this movement. Instead the jaw and tongue movements usually come by themselves merely by playing a great deal of music in the lower range. I always believe it best to be somewhat unconscious of our physical maneuvers and highly conscious of our musical goals.

Many players will have considerable difficulty playing in the low range at first but usually the embouchure learns to cope with the low vibratory rate on a trial and error basis. There is a general principle of embouchure involved in producing range on the Tuba. In descending into the lower range of the Tuba, we play with somewhat thicker surfaces as they will vibrate more slowly and still give a firm sound. Of course the opposite is true in the extreme upper range. Rotate the lips inward upon themselves rather than assuming a broad smiling position. The tighter lip surfaces will vibrate faster. We must be sure that the lips do not become stiff or it will be difficult to obtain proper response.

Slow

10. Tonguing Studies-

I picked the following quarter note study because it can be divided into two parts. The first part is in thirds, and starting with the 12th measure it becomes a study of fourths. With the many tonguing patterns I have indicated, the student has the choice of extensive repetitions by using one pattern for the entire study or changing midway.

The advantage of working out complex rhythmical and tonguing patterns by use of this type of exercise will soon become apparant. One of the benefits is the range and length of the study. Another is that the act of repetition soon removes fingering and pitch hazards. The player is then free to concentrate on the rhythmical factors of tonguing, which are complex enough without adding hazards of reading new pitch or fingering patterns at the same time.

I would suggest that the student be more aware of what good articulation should sound like, rather than what it should fee like. With success in good articulation will come sensations with which the player can familiarize himself, but he should not look for it as the important factor in order to achieve successful tonguing. I recommend precise diction in tonguing with the use of the syllables "too" or "tah". Which is chosen doesn't matter. It is important that the tongue remain as ri as possible at all times, with frequent rests to remove any sense of muscle fatigue or strain. I would suggest that the student pronounce "too" or "tah" orally, th use the tongue in a similar manner while playing the tuba.

There are differences in people's tongues, so what is proper placement for one will interfere with the tongue musculature of another.

a)

Rhythmic variations for the above study:

These studies should be memorized-- basic for the development of good technique.

b)

c)

11-Etude 6/4- Tone and Low Range Building

The following should be practiced slowly, metronome set to 60. It should be motivated as a tone building Etude for middle and low range. In this study, I prefer that the student breathe on the bar line, if possible, being very sure to fill the lungs and use air freely to produce a considerable resonance in his playing about *f*. Great awareness is demanded on the part of the player that his tone is always pleasing and has great clarity regardless of range.



12-Etude -for technique and articulations-

This is a very difficult Etude as it is not only rather fast, but must be highly articulate and yet very audible. It presents problems to the tuba player as to when to breathe. When I play this Etude I take the liberty of dropping notes in order to breathe. Tuba players use their breath up about 3 times as fast as the French Horns and Trumpets do, and as a result should be permitted to breathe more frequently. (This comment on air flow is based on playing at the same proportionate volume levels as the higher pitched instruments.) In studying this Etude, I recommend that it be taken and practiced by the phrase and not from beginning to end immediately. The ability to remember the phrases from one practice period to another is important. After the player has mastered the phrases he should use his own musical ideas of interpretation to the fullest.

The musical score is written for tuba in bass clef, 6/8 time. It consists of 10 staves. The key signature starts with one flat (B-flat), changes to two flats (B-flat, E-flat) at the beginning of the 7th staff, then to three flats (B-flat, E-flat, A-flat) at the beginning of the 8th staff, and finally to four flats (B-flat, E-flat, A-flat, D-flat) at the beginning of the 9th staff. The score includes various dynamics: *ff* (fortissimo) at the start of the first staff, *p* (piano) at the start of the second staff, *mf* (mezzo-forte) at the start of the fourth and sixth staves, and *pp* (pianissimo) at the start of the eighth staff. The music features a variety of articulations, including slurs, accents, and breath marks (indicated by a vertical line with a flag). There are also several slurs over groups of notes, and some notes are marked with accents. The piece concludes with a double bar line at the end of the 10th staff.

Slower *a tempo* Slower

13-Multiple Tonguing-

Multiple tonguing should not be attempted until a free use of single tonguing has been achieved. When the student begins multiple tonguing, I usually prefer that he start first with triple tonguing as he doesn't face the maximal use of the "K" consonant. The student first attempting to triple tongue should use only short groups of notes. I recommend the use of a metronome to encourage rhythmical precision. The tempo should be a comfortable one that the student could cope with while single tonguing. One should learn to pronounce "Tu-Tu-Ku-Tu" rhythmically in speech and then without voice, but while blowing a column of air, somewhat simulating the conditions of playing. When this maneuver has been extensively practiced, then the application to the instrument begins. It must be stressed in the beginning phases to do the exercises in mid range, using only a monotone for some time. This avoids coordination problems inherent in the use of the valves, and pitch changes in the embouchure.

A-Triple Tonguing-

Use adequate breath support and a very light contact of the tongue. Always practice for good tone. Play with various dynamics.

a)

b)

c)

Keep the feel of the quarter note rhythm while triple tonguing.

d) 

e) 

B-Double Tonguing-

Transfer the quality of the half note to the articulated notes so as to protect the notes of shorter duration against deterioration. Play with various dynamics.

a) 

Repeat each group three times. Feel a quarter note rhythm, and keep a positive and steady meter.

b) 

c)

T T K T K T T K T K *simile*

d)

Repeat each group three times. Transpose to all keys.

14- Etude 12/8-

I classify this Etude as a fanfare. This phase of Tuba playing is often neglected, and yet it is very important as it helps to bring about a faster entrance of tone on the instrument, which is very desirable for all types of playing. Being a fanfare, it should be played very loudly but not raucously. It is important that the student learn to conceive in his mind what he would like his audience to hear, and then play the Etude with definite ideas of interpretation.

Fine

D.C. al Fine

15-Finger Drills-

Transpose to all keys. Pause for breath as needed but keep the beat going and resume playing in rhythm.

a)

Pause for breath by marking a fermata over note. (Example indicated) Resume playing in rhythm.

b)

Exercise b) is a bass clef piece in 2/4 time, key of B-flat major. It consists of three staves. The first staff begins with a piano (*p*) dynamic and a fermata over the first note. The melody is composed of eighth and sixteenth notes, with phrasing slurs indicating breath points. The second staff continues the melody, and the third staff concludes with a final fermata over the last note.

c)

Exercise c) is a bass clef piece in 2/4 time, key of B-flat major. It consists of six staves. The first staff features a fermata over the fifth note. The melody continues across the remaining staves, using various phrasing slurs to indicate breath points. The exercise concludes with a final fermata over the last note on the sixth staff.