

THIRTY-SIX

TRANSCENDENTAL STUDIES

by **THEO CHARLIER**

COMPLETE WITH ALL KNOWN ERRATA
TRANSLATED BY KELSEY ANDERSON
ENGRAVED BY JOHN LAVERTY

THIRTY-SIX OF THE FINEST STUDIES EVER WRITTEN
FOR THE TRUMPET. COVERING STYLE, TECHNIQUE,
ARTICULATION, INTERVALS, RHYTHM, DOUBLE AND
TRIPLE TONGUING, SLURS, FINGERING, ARPEGGIOS,
OCTAVES, TRILLS, ORNAMENTS AND MUCH MORE

Q P R E S S M U S I C P U B L I S H I N G

Author's Foreword

Here you find a series of thirty-six studies for soprano piston trumpet, cornet, or flugelhorn, designed to help young artists who aspire to tackle the demands of modern music.

Today, working orchestral trumpeters must have best in class technique while also being accomplished musically. Modern composers no longer consider the difficulties in their compositions. They conceive the music, it pleases them, and the artist must push himself to play it! Whether you use an instrument in C, Bb, or in A, or, an older instrument in F, E, Eb, D, etc, the trumpeter no longer uses crooks as they would have done in the past. Modern works almost never allow sufficient time to re-tune, and would compromise the intonation of the instrument.

Since the piston trumpet is a chromatic instrument, like the flute, piano, or the violin, we should expect it to perform in a similar manner. Transposition should be adopted to do away with this inconvenience.

If the student trumpeter wishes to play in all keys, both sharps and flats, he should dedicate himself to careful study.

Over the course of my career as a performer and a teacher, I have experienced a variety of challenges which I have always tried to improve upon through appropriate exercises. I made note of these, as much for my personal use as for the education of my students. These studies have proven so valuable to many friends and former students that they honoured me with well wishes and insisted upon this publication.

Sensitive to their wishes, I decided to examine my manuscripts. I think that in choosing these thirty-six studies, which I present to you today, I might bring very humbly, a useful compliment to the works of my illustrious predecessors, both ancient and contemporary.

I have arranged them as methodically as possible, addressing rhythm, staccato tonguing in all of its forms, legato and slurring, and introducing excerpts as they would have been written by advanced composers who make use of the full capabilities of the instrument.

In general, and despite their transcendence, I have tried to make the practice of these thirty-six studies as enjoyable as possible. I thought it would be interesting to include written technical notes in strategic spots, both practical and historical, to both inform the student and also to give him a rest.

I hope that my efforts will continue to form the technique of young players. My efforts would be repaid - a hundredfold - if my work could help them overcome a few of the obstacles they will encounter over the course of their artistic career.

Théo Charlier

Professor at the Liège Royal Conservatory of Music

Articulation (*De l'articulation*)

Théo Charlier, Study No.1

Allegro (M. M. 108 to 120)

(*mf*) sans force

p

mf

p *poco a poco crescendo* *f* *moins fort*

f

p

f *p*

mf

p *crescendo* *mf*

f *poco rit.* *mf*

f *p*

en élargissant *mf* *f*

¹ This symbol \vee indicates a breath.

Style (Du style)

Théo Charlier, Study No.2

Allegretto (M. M. 84 = ♩)

mf

f *p* *f* *p* *mf* *cresc.*

p *poco rit.* *dolce*

3 *sous forme de récit*

poco rit. espressivo *string.*

cresc. *p*

rit. *mf*

sostenuto *p* *ad lib.* *mf*

tr *1er* *2e* *3e*

trillez avec 1er et 2e 3e

* This symbol  indicates a short pause, not as long as a traditional fermata.

Intervals: Thirds (*Intervalles: les tierces*)

Théo Charlier, Study No.3

Scherzando (M. M. 100 = ♩)

mf *f* *mf* *f* *p* *f* *mf* *p* *pp*

Meno mosso
dolce *poco a poco rit.*

f *p* *staccato simple*

staccato binaire *f* *staccato ternaire*

p

Ben cantabile
dolce

The image shows a musical score for a piano etude. It consists of eight staves of music in G major. The score includes various musical notations such as slurs, accents, and dynamic markings. Key markings include *p*, *f*, *sfz*, *mf*, *ff*, and *p*. Tempo markings include *Tempo 1o* and *Presto*. Performance instructions include *poco a poco stringendo*. The score features several triplet markings and slurred quarter notes.

Humour in Charlier's Third Study

This etude invites humorous interpretation. Each group of two slurred quarter notes can be played with emphasis (weight, and/or length) on the first note, followed by a short, clipped staccato quarter, giving them a stiff, robotic character. Exaggerate the dynamics.

The shift to g minor at *meno mosso* invites lugubrious "crocodile tears" in each short gesture. At *ben cantabile*, Charlier offers an opportunity to sing through sustained melodic material. The following *Tempo I* can be approached lightly, with smooth legato.

The *stringendo* in the coda creates a rather frantic dash to the final *ff*. After the brief, charged pause, the final two bars deliver a sassy last laugh.

Louis Ranger

Style (Du style)

Théo Charlier, Study No.4

Andante con moto (M. M. 66 = ♩)

fueramente

mf

p

dolce

Poco più mosso

Leggiero

p

mf

p

mf

f

mf

f

mf

f

mf poco a poco string. e cresc. - - *f*

p

poco a poco cres - - cen - -

do e string.

Stesso Tempo

f

dolce

allargando

Let us avoid the use of crooks

The small instruments with mouthpieces, such as they are, should not rationally make use of only one key. Changing the key, is to unbalance the instrument. One must, with every mutation, employ meticulous care with the execution of certain works, which is sometimes nearly impossible. Artists who use this category of instruments (hornists, cornetists, trumpeters) should be compelled to know in depth transpositions and not make use of crooks, except in extreme circumstances. But a serious player will always be tempted to conquer the difficulties which will arise when doing so, especially when it comes to intonation. He will quickly notice that with a little practice he will become the master of all that is presented to him.

While waiting for this level of mastery when using a single key instrument, it will be useful to learn to proportionally adjust each slide to fine tune the intonation: 1. make sure that the 1st slide is exactly twice the length of the 2nd slide; 2. make sure that the 3rd slide is exactly three times the length of the 2nd slide.

Omitting these guidelines would be a serious mistake, which would compromise, in terms of intonation, not only the desk to which one belongs, but even still the intonation of the entire orchestra and the success of the work being “executed” ...in the sinister sense of the word.

Théo Charlier

Articulation (*De l'articulation*)

Théo Charlier, Study No.5

♩ All° assai (M. M. 112 = ♩.)

The main musical score consists of 12 staves. It begins with a treble clef, a key signature of two sharps (F# and C#), and a 6/8 time signature. The first staff starts with a *mf* dynamic. The second staff has a *p* dynamic. The third staff is marked *al Coda* with a Coda symbol and a *p* dynamic. The fourth staff has a *p* dynamic, followed by a *f* dynamic. The fifth staff starts with *mf*. The sixth staff has a *f* dynamic. The seventh staff has a *p* dynamic. The eighth staff has a *f* dynamic. The ninth staff has a *crescendo* marking. The tenth staff has a *f* dynamic, followed by a *dolce* marking. The eleventh staff has a *f* dynamic. The twelfth staff has a *f* dynamic and ends with a Coda symbol. The final measure of the main score is marked (D.C.) and *sans ralentir*.

Coda

The Coda section consists of two staves. The first staff has a treble clef, a key signature of two sharps, and a 6/8 time signature. It starts with a *cres* marking, followed by a *cen* marking, and then a *do* marking. The dynamic is *f*, followed by a *p* dynamic. The second staff has a *cres* marking, followed by a *cen* marking, and then a *do* marking. The dynamic is *f*, followed by a *poco allargando* marking.

Advice to Young Artists

In the orchestra, the player has self control and does not speak during the playing of the piece (unless when absolutely necessary).

He has an instrument that is functioning perfectly and a good mute that does not alter the integrity of the scale.

Before an orchestra performance the player should take great care to not play excerpts or themes from the piece to be performed, which is in very poor taste.

He turns the pages without any sound, especially during a complete silence.

He is in his chair on time and, during the rehearsals, gets up as little as possible.

He moves the slides of his instrument quietly by lowering the pistons first so as to avoid an audible explosion of air.

He does not blow violently through the instrument to expel the water that has condensed inside of it. A prolonged gentle stream of air will be much more efficient.

He has his instrument tuned and adjusted before going on stage. When he does this in a waiting room, he takes care to note the temperature of the room, knowing that the speed of sound increases with heat and slows down with cold, and should make the necessary tuning adjustments to the instrument.

If he needs to step away from the orchestra in order to play a solo from a distance, he should know that the sound will lower noticeably with increasing distance. He will need to raise the pitch of his instrument and he should measure the amount of adjustment needed in advance.

He counts his measures of rest carefully; all the while, while playing, he relies as much on a good cue as he does on counted measures. An error is easily made, and a good cue does not lie.

He follows the feelings of the conductor. He is flexible and attentive, altering his sound according to what is asked of him, and connecting with the conductor and any other instruments in the phrasing.

He increases or decreases the dynamics requested in order to contribute to the performance.

If he follows these conditions, the player will be doing justice to his work, and will be held in high esteem.

Théo Charlier

Conservatoire Royal de Musique de Liège

Style (Du style)

Théo Charlier, Study No.6

Andante cantabile without slowing (M. M. 63 = ♩)

(*mp*) dolce

p

espressivo

f

f

f

p

f

(*p*) poco a poco string. e cres -

cen - do

p ad libitum

mf

f poco agitato

(*p*) dolce

f

dolce

senza agitato

f *p* *cres - - cen - - do*
p *mf* *mf* *f*
rall. *p* *dolce* **I. Tempo**
f *espress.* *dim.*
mf *tr*
(pp) écho *(mf)* *doux*
poco a poco rall. e dim. ppp

Table of Harmonics From the Fundamental to the 24th

The numbers represent the number of divisions of the standing wave; Though the harmonics we commonly use are from 1 - 18, it is good to know the corresponding notes for harmonics 19 - 24. The 15th is too flat, and harmonics 21, 22, and 23 are rarely used.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Technique (*Du mécanisme*)

Théo Charlier, Study No.7

Moderato (M. M. 100 to 112 = ♩)

(mf) sans force

pp subito

revenir peu à peu à

une sonorité modérée

f *mf* *f* *mf*

p

This study can also be transposed into Ab and Bb major.

poco a poco cres - - - cen - - - do
mf f
ff mf
p cres - - - cen - - - do mf
f

The Metronome

- From the Greek Metron (measure) and Nomos (rule) -

The numbers placed on the white band which is found behind the pendulum indicate the number of swings it will complete in one minute. As such, 48 - 88 - 116, etc. indicate that when the movable weight is placed on that number, the pendulum will make 48 - 88 or 116 swings per minute, which you will hear as a *tick-tock* as it moves back and forth.

Théo Charlier

Intervals: Fourths (*Intervalles: les quarts*)

Théo Charlier, Study No.8

Andantino (M. M. 60 = ♩.)

(*mp*) *ben cantabile*

(*f*) *marcato* (*mp*) *dolce*

sfz

poco a poco

cres - cen - do e string - gen - do

Tempo 1o
mf

f sfz *sfz* *sfz* *sfz*
mf *sans retard*
dolce
f *mf* *3* *3* *3* *3* *3*
f *p écho* *f* *p écho* *mf* *3*
(p) écho *f*
p *mf* *3* *p* *f*
en élargissant un peu

Theory of the Instrument

There is no three valve or piston instrument that is perfectly in tune when a combination of valves are required to play a note. Here is the reason: the use of any one piston lengthens the column of air so as to lower the pitch: one tone if we press the first valve; half a tone if we press the second valve, a tone and a half if we press the third valve.

This much we know for sure.

Imagine, for example, a trumpet in B-flat (with a theoretical length of 1.475 meters) where we press all three valves down to play an F-sharp or C-sharp. These pitches require a supplemental air column of 0.612 meters. The sum of the three slides added when pressing valves 1, 2, and 3 should meet this requirement. But, the 1st piston lowered gives us a length of 0.181m, the 2nd, 0.088m, and the 3rd, 0.279m. This makes a total of 0.548m.

We are missing, therefore, is 0.612m minus 0.548m totalling 0.064m. This means the resulting pitches are going to be too high. These out of tune notes are most often corrected through the use of the lips. It goes without saying that accuracy is only acquired through a great deal of practice and repetition. There are instruments with movable 1st valve slides, but [currently] these are quite rare. A movable 3rd valve slide is seen more frequently today and gives good results.

Théo Charlier

Scherzetto

Théo Charlier, Study No.9

Allegro scherzando (M. M. 84 = ♩)

(mf) *leggiero*

p

mf *dolce*

mf

mf

mf

mf

mf

f *mf*

mf 3 3 6 (*simili*)

p poco a poco cres - cen - do

poco diminuendo

I^o Tempo

poco ritenuto (*mf*) 3 3

f 6 3 5

poco allargando *pp*

The musical score consists of ten staves of music in a key signature of three flats (B-flat, E-flat, A-flat) and a common time signature. The first staff begins with a dynamic of *mf* and features triplet and sextuplet markings. The second staff includes the instruction *poco a poco crescendo*. The third staff is marked *poco diminuendo*. The fourth staff is marked **I^o Tempo** and includes *poco ritenuto* and *mf*. The fifth staff features a dynamic of *f* and includes a quintuplet marking. The sixth staff continues with *f* dynamics. The seventh and eighth staves show a transition to *pp* dynamics. The ninth and tenth staves are marked *poco allargando* and *pp*. Various performance markings such as *V* (accents) and *simili* are present throughout the score.

Rhythm (*Du rythme*)

Théo Charlier, Study No.10

Andante (M. M. 60 = ♩.)

(*mp*) dolce

poco rit.

scherzando

poco a poco crescen-do ***f***

mf *rallentando* ***p*** *dolce*

f

f *mf*

f *mf*

stringendo ***f***

(92 = ♩)

(*mp*) dolce

f marcato

p *f*

p *poco rit.*

Allegro *staccato ternaire*

staccato binaire

crescendo *f* *p*

f *én largissant*

The musical score consists of 13 staves. The first six staves are in treble clef with a key signature of two sharps (F# and C#). The seventh staff changes to a bass clef and a key signature of one flat (Bb). The tempo is marked 'Allegro'. The score includes various dynamics such as *p* (piano), *f* (forte), and *marcato*. Articulations include accents (^) and slurs. Performance instructions include *staccato ternaire*, *staccato binaire*, *crescendo*, and *én largissant*. There are also markings for *poco rit.* and *7* (likely a fermata or similar instruction).

Fantasy (*Fantaisie*)

Théo Charlier, Study No.11

All^o Moderato (M. M. 108 = ♩.)

(1)

mf fieramente

sfz sfz sfz sfz sfz sfz

p f p

f p f

sans retard

f p

f p f

mf f mf f

f p dolce

sans retard

⁽¹⁾ Preparatory study for Théo Charlier's "Solo de Concours"

trille $\frac{1}{3}$ -3) **Listesso tempo**

f *mf* *léger*

p *mf*

p *crescendo* *mf* *cresc.*

sans retard *f* *mf*

tr(#) (avec le 3e doigt) *tr* *p*

cresc. *f* *mf*

poco a poco stringendo e crescendo *f*

Tempo fieramente

mf

sfz *sfz* *sfz*

sfz *sfz* *f*

More often than not, this rhythm is not properly observed. That is regrettable. We could play it effectively if we play it like this: A) double the dot on the first note; B) then half the length of the second note; C) play the third note as written.

Example:

This method will give us a better chance of conserving the character of this rhythmic pattern, but it is preferable to respect the existing notation if possible.

Modern Study (*Étude moderne*)

Théo Charlier, Study No.12

Allegro moderato (M. M. 96 = ♩)

(*mf*) *decidé*

dolce *mf*

f

mf *dolce*

mf

sfz *f* *p* *cres - cen -*

do

Stesso tempo

f *p*

simili

poco a poco cres - - cen - - do

f *sfz*

sfz *f*

mf *p*

dolce

mf

moins fort (*mf*)

mf

mf

poco a poco crescendo *f* *sfz* *sfz*

Air

Air is the body which vibrates inside wind instruments; whether made of wood, glass, brass, bronze, the timbre is the same. Conclusive experiments began around 1846 (according to Victor Mahillon) by Adolphe Sax, the Belgian instrument maker established in Paris, which showed that the material of the instrument does not affect how the sound is formed.¹ The proportions of the air column are determined by the shape of the tubing and the way in which the vibrations of air are generated are the only things that cause the timbre to vary (the wooden trumpet demonstrates this conclusively); this instrument has a natural timbre that is identical to that of the brass trumpet, and is in Eb and produces the following notes:

2 3 4 5 6 7 8 9 10

Théo Charlier

¹ V. Mahillon, Museum of the Conservatory of Brussels, No.572, 1st Volume, 2nd Edition).

Prelude (*Prélude*)

Théo Charlier, Study No.13

Allegretto (M. M. 54 = ♩.)

(*p*) dolce

p (*sub*)

p (*sub*)

f

mf *poco a poco cresc.*

f *p*

poco rit. *Tempo* (*p*) dolce

f *mf* *lent*

p *mf* *p* *pp* *ppp* *poco a poco ritenuto e diminuendo*

Exercise for the 3rd Finger (*Pour l'exercice du 3^e doigt*)

Théo Charlier, Study No.14

Moderato (M. M. 76 = ♩.)

(*p*) dolce

cres - - cen - - do *f* *mf*

p *moins p*

mf *p*

à l'aise (*p*) dolce

Tempo Iº

Tempo Iº

cédez un peu

Tempo

poco ritenuto (*mf* *f*)

Transpose a tone higher, into E minor; Transpose a minor third higher, into F minor; Transpose a fourth higher, into G minor and double tongue.

Intervals: Fifths (*Intervalles: les quintes*)

Théo Charlier, Study No.15

Allegro gai et vif (M.M. 120 = ♩)

The first section of the study is in 3/4 time and consists of 12 staves of music. It begins with a treble clef and a key signature of three sharps (F#, C#, G#). The tempo is marked 'Allegro gai et vif' with a metronome marking of 120 = ♩. The dynamics range from *f* (forte) to *p* (piano). The music features various rhythmic patterns, including eighth and sixteenth notes, and includes several triplet markings. A section of the music is marked 'simili' and 'ff' (fortissimo). The section concludes with a 'Tempo' marking and a change in dynamics to *mf* (mezzo-forte).

The second section of the study is in 6/4 time and consists of 5 staves of music. It begins with a treble clef and a key signature of three sharps (F#, C#, G#). The tempo is marked 'Andante' with a metronome marking of 126 = ♩. The dynamics range from *mp* (mezzo-piano) to *sfz* (sforzando). The music is characterized by long, flowing lines and includes several triplet markings. The section concludes with a 'dim. e rall.' (diminuendo e rallentando) marking.

poco rit.

All° Marcato (100 = ♩)

f

mf cresc.

(ff)

p mf

f mf f

Tempo I° mf f mf f p

f p

f

mf simili

p

f

f p f sfz
poco a poco cres - - cen - - do

Double Tonguing (*Du staccato binaire*)

Théo Charlier, Study No.16

Allegro (M. M. 84 = ♩.)

The musical score is written for a single melodic line in 3/8 time. It begins with a treble clef and a key signature of one sharp (F#). The tempo is marked 'Allegro' with a metronome marking of 84 quarter notes per minute. The score is divided into several sections with varying dynamics and articulations:

- Staff 1: *(mp) dolce*
- Staff 2: *(p) dolce*
- Staff 3: *(mp)*
- Staff 4: *f*
- Staff 5: *moins fort*
- Staff 6: *mf*
- Staff 7: *p*
- Staff 8: *f*
- Staff 9: *f (sub.)*
- Staff 10: *(mp) dolce*
- Staff 11: *f (mp) dolce*
- Staff 12: *poco a poco crescendo*
- Staff 13: *f p f pp f*

The score includes various musical notations such as slurs, accents, and dynamic markings. The final section features a tremolo marked with a star and the instruction 'poco a poco crescendo'. The piece concludes with a final *f* dynamic marking.

* To play this tremolo, break the air column by alternating the 1st and 3rd valves. Press the 1st valve and tremolo with the 3rd.

The Mouthpiece

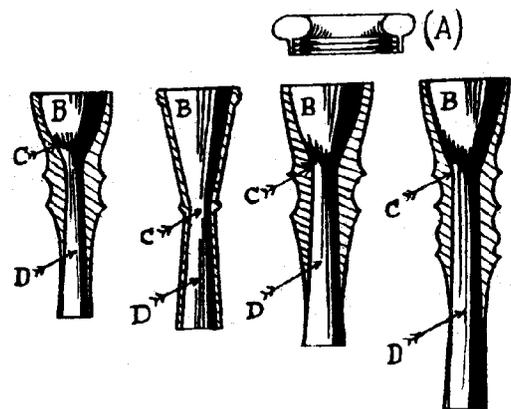
The mouthpiece is made up of 4 main components: A. the rim B. the cup C. the throat and D. the backbore. The cup, which generates the sound, must be proportional to the length of the air column. If it is too deep it makes the upper register flat, and in reverse it raises it.

The mouthpiece that we use must be the one that was supplied with the instrument or one of similar size, except for the rim which could be larger or smaller based on the size of your lips and teeth, which vary greatly from person to person.

The beauty of the timbre depends on the flexibility of the pressure of the mouthpiece against the lips. This pressure, which should not be forced, can compromise the sonority, as the tension can restrict the precise division of the air column. It is, therefore, of utmost necessity, in order to obtain a pure sound and avoid tiring the lips with excess pressure or blowing too hard, which would have no other effect except to paralyze and prevent not only the purity of sound, but also its production.

To use the same mouthpiece when playing different instruments (such as the bugle, the trumpet, the piston cornet, or horn) is a huge mistake; the same can be said for the tuba, baritone, or trombone. This will obviously result in the harmonic resonance being thrown out of balance by the irregularities and disproportions between the mouthpiece and the tubing.

To avoid this inconvenience, in 1910 I made a mouthpiece with an interchangeable rim to attach to different cups, either funnel or bowl shaped, and for which I obtained a patent (see right).



“Experience has proven that there is no greater disadvantage to artists who are desiring to play multiple instruments, than the changing of the rim of the mouthpiece, the only way to have a comfortable mouthpiece is to get used to it, through study and practice with the one that we own; in this way the lips vibrate under the pressure obtained by a consistent rim. This way we acquire the flexibility and elasticity that would not otherwise be obtainable by changing mouthpieces with different vibrating contours.”¹

It is obvious that each player could have an interchangeable rim made to the diameter of the mouthpiece to which he is most accustomed, and by pairing it with the correct backbore, he would have no difficulty in maintaining a stable and flexible embouchure.

Théo Charlier
Conservatoire Royal de Musique de Liège

¹ V. Mahillon, Museum of the Conservatory of Brussels, No.572, 1st Volume, 2nd Edition.

Intervals: Sixths (*Intervalles: les sixtes*)

Théo Charlier, Study No.17

Vivo (M. M. 69 = ♩.)

Imitate a bell

sfz p sfz p sfz p mf > mf > mf sfz p sfz p

sfz p mf > mf > mf sfz p sfz p sfz p

mf f p

poco ritenuto

f p sfz p sfz p sfz p

Poco meno mosso *Cantabile*

dolce

Tempo

mf cédez un peu

retenez

Pas trop vite

sans forcer le son

f

ten.

p écho f p écho

rit. dolce

The musical score consists of 13 staves. The first staff begins with a tremolo marked *mf* and includes a fingering diagram: $\begin{matrix} * & 0 & 2 & 0 & 2 & 0 & 2 & 0 & 2 & 0 & 2 & 0 & 2 \end{matrix}$ above a series of notes. Subsequent staves feature various dynamics such as *f*, *mf*, *fz p*, and *f*, along with performance instructions like *simili*, *rit.*, *Tempo*, *dolce*, *poco a poco cres - cen -*, *Poco meno mosso*, and *poco crescendo*. The score concludes with a final *fz p* dynamic.

* To play this tremolo, use the indicated fingerings.

Triple Tonguing (*Du staccato ternaire*)

Théo Charlier, Study No.18

Moderato (M. M. 100 = ♩)

(mf) marcato

simili

poco rit.

f

poco rit.

p

f *mf*

sfz *mf*

poco allargando

Un peu moins vite

mf

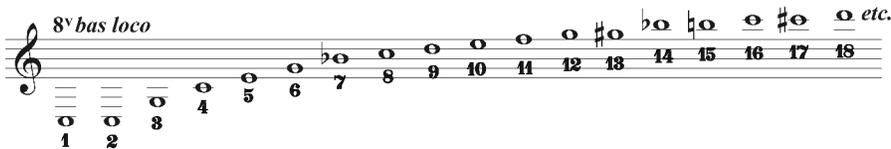
mf *mf* *(mf) marcato*

f *molto ritenuto* *f*

Best Writing Practices for Brass

It is known that each length of tubing makes a series of notes, where the pitch is dependant upon the pressure of the mouthpiece against the lips. The lips, in tandem with the breath, cause the air column to vibrate. These sounds, always the same pitches for the same length of tube, as called “harmonics.”

Traditionally, no matter the length of the instrument, the harmonic series is written as follows:



Before the invention of valves, which dates to 1814 (not including instruments with slides or keys), there were only natural instruments with crooks, which produced only the above harmonics. These harmonics do not make up a complete chromatic scale. To obtain the full chromatic scale, it is necessary to extend the principle tubing with an assortment of accessory tubes in convenient lengths (called valve slides) which are opened and closed by the valves at will. Therefore, we switch to the column of air that is the necessary length for the desired pitch.

If we do not use the valves, the instrument will only produce the harmonics written above.

However, the writing for small instruments with a mouthpiece (little flugelhorn, little trumpet in D, soprano trumpets in C, B-flat, A, cornet, flugelhorn) would require the use of many additional ledger lines, it is common to write these parts an octave higher.

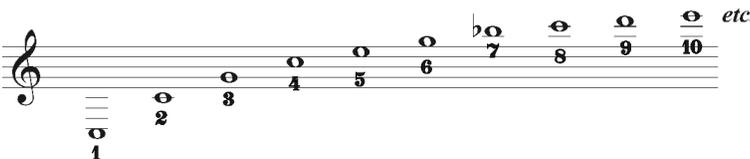
Therefore this musical phrase which should be written:



will actually be written:



and the harmonics would be incorrectly written:



because they are one octave higher than the actual harmonics.

Théo Charlier

Conservatoire Royal de Musique de Liège

Intervals: Sevenths (*Intervalles: les septièmes*)

Théo Charlier, Study No.19

(M. M. 66 = ♩)

f marcato *p* *mf*

mf cresc. - - - *cen* - - - *do* - - - *f p*

cresc. - - - *cen* - - - *do* - - - *f mf*

f p *(f) marcato*

p (f) marcato (p) Poco più mosso (M. M. 72 = ♩)

cédez un peu p dolce

mf p mf p

mf p (mf) p

mf

p cresc. - - - *cen* - - - *do*

f

(152 = ♩) *dolce*

p *f* (*mp*) Une mesure de ce mouvement équivaut à un temps du mouvement précédent

All^o *ben marcato* (138 = ♩)

cédez un peu *f* *mf*

crescendo *ff* *diminuendo* *poco a poco*

mf *p poco rall.* *f* *Vivo*

meno forte *f* *p*

f *p* *p* *sfz*

Translating the Keys

French	Ut	Ré ♭	Ré	Mi ♭	Mi	Fa	Sol	La ♭	La	Si ♭	Si ♮
Italian	Do	Re ♭	Re	Mi ♭	Mi	Fa	Sol	La ♭	La	Si ♭	Si ♮
German	C	Des	D	Es	E	F	G	As	A	B	H
English	C	D ♭	D	E ♭	E	F	G	A ♭	A	B ♭	B ♮

Connected Phrases in Varying Rhythms

(Par mouvements conjoints et aux rythmes variés)

Théo Charlier, Study No.20

Andantino (M. M. 72 = ♩)

(*mp*) *doux*

cédez un peu

Tempo I.

f marcato

mf > *mf* > *mf* > *mf* > *mf* > *mf* >

SCHERZO

Vivo (à un temps) (M. M. 69 = ♩)

dolce leggiero

mf

f *p*

This study can also be transposed a half tone lower.

Octaves (*Les octaves*)

Théo Charlier, Study No.21

Moderato (M. M. 69 = ♩.)

(*mf*) sans foreer le son

The first section of the study consists of ten staves of music. It begins in the key of B-flat major (two flats) and 3/8 time. The tempo is marked 'Moderato' with a metronome marking of 69 quarter notes per minute. The music features a variety of rhythmic patterns, including eighth and sixteenth notes, often beamed together. Phrasing is indicated by slurs and breath marks. The section concludes with a double bar line and a repeat sign.

Stesso tempo

Tempo

ritenuto *ritenuto* Tempo (♩. = ♩.)

(*mp*) dolce

The second section of the study consists of five staves of music. It begins with a key signature change to C major (no sharps or flats) and continues in 3/8 time. The tempo is marked 'Stesso tempo' and 'Tempo'. The music features a variety of rhythmic patterns, including eighth and sixteenth notes, often beamed together. Phrasing is indicated by slurs and breath marks. The section concludes with a double bar line and a repeat sign.

f *p* *en ralentissant*
Andante espressivo
 peu - à - peu - - - dolce
mf *p*
V
V
 poco a poco stringendo e cres - cen - do - - *f* diminuendo
V **Tempo**
 e ritenuto dolce
Moderato
V *p* *(mf)* comma Io
en élargissant

Various Articulations (*Des différentes articulations du staccato*)

Théo Charlier, Study No.22

Allegro Mod^{to} (M. M. 116 = ♩)

tu tu ku t k t k t k t k *simili*

(*mf*) sonorité pleine mais sans force

simili

marquez le thème

dolce

f

p poco a poco crescendo

fp poco a poco crescendo *f*

p *p* *p*

p **1^o Tempo**

poco rit. *ff* Marcato fieramente

Arpeggios (*L'arpège*)

Théo Charlier, Study No.23

Allegro moderato (M. M. 92 = ♩)

(f)
fieramente

meno forte

rit. **Tempo**
(mp) *dolce*

The musical score is written for a single melodic line on a grand staff. It begins in the key of D major (one sharp) and 3/4 time. The tempo is marked 'Allegro moderato' with a metronome marking of 92 quarter notes per minute. The piece is characterized by a series of arpeggiated chords, often with slurs and accents. Dynamics range from forte (*f*) to mezzo-piano (*mp*). The piece concludes with a *rit.* (ritardando) and a **Tempo** marking, followed by a *dolce* (dolce) section.

crescendo poco a poco **f** *ritardando*

Lent (M. M. ♩ = 63)

(mp) ben canto

crescendo **f** *rubato*

revenir peu à peu au 1er movt.

Tempo I°

f *fieramente*

mf

f *rubato*

poco a poco stringendo

A Selection of Trumpet Parts from the Works of Richard Wagner

(À travers la partie de trompette de l'œuvre de Richard Wagner)

Théo Charlier, Study No.24

(M. M. 72 = ♩)

f *fieramente* *moins fort* *f*

LOHENGRIN "LE JUGEMENT DE DIEU" RIENZI

LOHENGRIN RIENZI

poco a poco cres - - cen - - do

"THEME DE LOHENGRIN"

f *mf* *f* *f*

TRISTAN ET ISEULT "THEME DE LA MORT"

f *p* *molto espressivo*

TRISTAN "COR DES ALPES" (1)

All^o (M. M. 69 = ♩.)

p *poco a poco cres - - cen - - do* *f*

LES MAITRES CHANTEURS

mf *f* *mf*

ACT II, DIE MEISTERSINGERS

f *mf* *f*

Molto mod (M. M. 66 = ♩)

p *f* Trompette obligée

"KAISER MARCHE"

dans l'ouverture

mf *p*

poco a poco cres - - cen - - do *f*

en retenant un peu

mf *p* *pp* *ppp* *mf* *dim.*

L'OR DU RHIN "LE WALHALLA"

Andante (69 = ♩)

THÈME DE L'ÉPÉE

f *molto energico* *moins fort* *f*

(^o) The Alpine Horn is normally played on muted trumpet in the wings.

"LES NORNES"
diminuendo **pp**

"THEME de LA FORGE"
moins p **pp**

"LA FORGE"
moins p **f**

SIEGFRIED "L'OISEAU"
f

"RYTHME DE LA CHEVAUCHÉE"
mf *(p) écho*

SIEGFRIED "LE FILS DES ROIS"
pp **f** **mf**

PARSIFAL "LA CÈNE"
dim. **p** *poco rallentando* **sf** *presqu'lent* **dim.**

Molto lento
p *tres doux* **sf**

Allo pesante L'OR DU RHIN "LE TRAITÉ"
pp **f** **Allegro** **p** *crescendo poco a poco*

VAISSEAU FANTÔME
f

CRÉPUSCULE DES DIEUX
f

L'OR DU RHIN
 "INCANTATION DU TONNERRE"
f

The bell determines the accuracy of the harmonics but it does not alter the timbre, nor the sonority.

14 "The rhythm is order and proportion in space and time."
Vincent d'Indy

Slurs (Du coulé)

Théo Charlier, Study No.25

Scherzo (M. M. de 76 à 80 = ♩.)

(*p*) dolce

p

poco a poco crescendo

cres - - cen - do ***f*** *p*

p *poco* *a* *poco* *cres -*

cen - do *p*

f

p ***sfz***

sfz *sfz* *sfz* *sfz*
sfz *cres* - - - *cen* - - - *do* - - -
f *dolce*
dolce
crescendo - - - - - *mf* *cres* - - - *cen* - - - *do* *f*
diminuendo - - - - - *sfz*
sfz *sfz* *sfz* *mf* *diminuendo* *sans retard*
(p) dolce
f *stretto*
ff
ff *poco allargando*

Chromaticism (*Chromatisme*)

Théo Charlier, Study No.26

(M. M. 88 à 116 = ♩)

(*mp*) dolce

poco ritenuto

Poco meno mosso

This page of a musical score contains 13 staves of music. The notation includes treble clefs, various key signatures (including one with three sharps and one with three flats), and complex rhythmic patterns with many beamed notes. Performance instructions are placed throughout the score: *Tempo* appears on the sixth staff, *I° Tempo* on the eighth staff, and *soutenu et un peu retenu* on the thirteenth staff. Specific lyrics are written below the notes: *cédez un peu* on the fifth staff, *en retenant un peu* on the eighth staff, and *(mp)* on the ninth staff. The score concludes with a fermata over a final note on the thirteenth staff.

Fantasia (*Fantaisie*)

Théo Charlier, Study No.27

Modérément (M. M. 92 = ♩)

(*mf*) *large mais sans force*

en cedant un peu

Meno mosso (M. M. 72 = ♩)

f *Stesso tempo*

p *f* *f* *p* *f*

sfz *p* *sfz* *p* *sfz* *f* *mf* *leggero*

f *f* *f* *p* *f* *f*

staccato binaire

p leggiero

t t k t k t k t k simili

t t k t k t t k t k simili

f f

Modéré (à un temps) (M. M. 72 = ♩.)

p f p poco rit. mf espressivo

Moderato tranquillo (1° Tempo)

p

rallentando e diminuendo

doux

Tempo

rall. molto

Tempo

poco a poco crescendo f

f p

Presto staccato simple

f p poco a poco

crescendo - - f - - ff sfz ff

Triple Tonguing (*Du staccato ternaire*)

Théo Charlier, Study No.28

Prélude

f *ad libitum* *mf* *f*

f *mf*

f *pp* *écho* *f* *poco rit.*

Allo moderato (M. M. 92 = ♩)

p *molto rit.* *mf* *marquez le thème*

3 *3* *simili* *mf*

(p) *dolce* *mf* *p*

mf

(mp) *leggiero*

mf *moins fort*

staccato simple **Poco meno mosso**

en retenant *p* *staccato ternaire*

f

(p) écho

f

(p) écho

poco a poco crescendo

Tempo Io

f *(mf) dolce*

f *moins fort*

f *poco allargando*

“Well executed practice, even for a short time, is more profitable than long hours of poorly directed study.”

J.B. Arban

The Mordent (*Le mordant*)

Théo Charlier, Study No.29

All° deciso energico (M. M. 152 = ♩)

The first section of the piece is marked "All° deciso energico" with a tempo of 152 beats per minute. It begins with a treble clef, a key signature of three flats (B-flat, E-flat, A-flat), and a 3/8 time signature. The music is characterized by rapid sixteenth-note passages with mordents over the notes. The first measure is marked with a forte (*f*) dynamic. The section concludes with a *f* dynamic and a fermata over the final note.

Lent (69 = ♩)

The second section is marked "Lent" with a tempo of 69 beats per minute. It begins with a treble clef, a key signature of three flats, and a 3/4 time signature. The music features a more melodic and expressive style, with long phrases and a *rit.* (ritardando) marking. The dynamic is marked *(mp)* *dolce ben canto*. The section includes several measures with mordents and trills, and concludes with a *(mp)* *dolce* marking and a fermata over the final note.

V

V

V

V

V

V

V

V

V

poco rall.

f *energico*

rit. **Tempo**

f

t t k t k t k t

simili

cres - cen - - do

f

f

Instrument Lengths

Trumpet in B-flat	=	1.475 m.
Cornet	=	Same
Flugelhorn in B-flat	=	Same
Bugle	=	Same
Cavalry Trumpet in E-flat	=	2.211 m.
Cavalry Bass Trumpet	=	4.422 m.

The musical score consists of eight staves of music. The key signature is three sharps (F#, C#, G#). The score includes various time signatures: 3/4, 12/8, 4/4, 2/4, 3/4, 6/8, 9/8, and 6/4. Dynamics include *f*, *poco ritenuto*, *f*, *mf*, *(p) dolce*, *mf*, *p*, *poco a poco ritenuto*, *f*, *p*, *mf*, and *f*. There are also markings for *Tempo I.* and *Tempo I.* The score features complex rhythmic patterns, including triplets and slurs.

Classification of Instruments with Small Mouthpieces (According to Victor Mahillon)

The timbre is due to the shape of the air column and the proportions of the tubing.

Horn: narrow tubing and conical bore. Smooth timbre.

Cornet: narrow tubing, less conical than that of the horn. Smooth timbre, but more biting than the horn.

Trumpet: narrow tubing and cylindrical bore for the majority of its length. Bright timbre.

Trombone: which means long trumpet. Same shape of tubing and timbre.

Flugelhorn: large and conical tubing. Mellow timbre.

Alto Flugelhorn

Baritone

Tuba

Bombardon

Saxhorn Instrument Family

Théo Charlier

Double Tonguing (*En staccato binaire*)

Théo Charlier, Study No.31

Prélude
dolce ad libitum

(mf) *f* *p*

Allegro (M. M. 116 = ♩)

mf *poco rit.*

a Tempo

dolce *f* *p* *crescendo* *f* *mf* *rit.*

v *cadenza* *f* *rit.*

p

f *poco ritenuto*
diminuendo
 Tempo
 (*mf*)
 Tempo
rit.
 Tempo
f
p
mf
f
pp *f*

The Trumpet in E Sharp

Sometimes, in opera music, the parts call for: “trumpet in B-sharp” or “trumpet in E-sharp.” The composer (Auber in *Fra Diavolo*, Meyerbeer in *The Huguenots*, Rossini in *William Tell*) expects you to use the trumpet in E or B natural. The “sharp” only indicates that the key of the piece is full of sharps. The indications are only encountered very rarely and amount to anomaly.

Théo Charlier

Lip Slurs (*De la liaison des harmoniques*)

Théo Charlier, Study No.32

Moderato (M. M. 104 = ♩)

(*mf*) sans efforts, sonorité plienne et douce

Transposition

Transposition is a trumpeter's speciality, and it is of great necessity that he gets used to it as soon as his musical education will allow. He must practice it daily. I recommend reviewing certain easier lessons and practicing them transposed up a tone and then down a tone, etc. The perfect fourth, tritone, and perfect fifth are very important to master, especially for those who play in orchestra on B-flat trumpet. Naturally, the student must become familiar with all of the transpositions.

Théo Charlier

Triple Tonguing (*En staccato ternaire*)

Théo Charlier, Study No.33

Moderato (M. M. 88 = ♩)

The musical score is written for a single melodic line in 3/4 time, key of B-flat major. It begins with a tempo marking of Moderato (M. M. 88 = ♩). The piece is characterized by intricate rhythmic patterns, including frequent triplets and sixteenth-note runs. Dynamics are varied, starting with a forte (f) section, moving to mezzo-forte (mf) and piano (p) passages, and returning to forte (f) towards the end. The score includes performance instructions such as *(simili)*, *crescendos* (cres - - cen - - do), and a final tempo change to *Un poco meno mosso*. The piece concludes with a cadence marked with the letters *t k t t k*.

f *mf*

v *mf*

p

f *p*

crescendo

p *mf*

cres - - - cen - - - do

Tempo 1 *f*

f *mf* *p*

f *p*

p

f *ff*

Detailed description: This page of a musical score contains 14 staves of music. The key signature is two sharps (F# and C#), and the time signature is 3/4. The music is characterized by complex rhythmic patterns, including triplets and sixteenth-note runs. Dynamics range from *f* (forte) to *ff* (fortissimo), with *p* (piano) and *mf* (mezzo-forte) also present. Articulation includes accents (>) and breath marks (v). A section marked 'Tempo 1' begins in the 10th staff, where the key signature changes to one flat (F major). The score concludes with a final *ff* dynamic marking.

Rhythmic Fantasia (*Fantaisie rythmique*)

Théo Charlier, Study No.34

Andante (M. M. 76 = ♩)

(*mp*) dolce

sostenuto

1º Tempo

f

poco rit.

p

mf

cres - - - cen - - - do

p

en élargissant un peu

Tempo Iº

dolce

ten.

poco allargando

Allegro (112 = ♩)

staccato binaire

légèrement

poco a poco cresc.

mf *diminuendo*

p

sans retard

Timbre

The bright timbre of the trumpet is due to its entirely cylindrical air column;
the cup shaped mouthpiece increases this effect.

Study of the Slur (*Etude sur le coule*)

Théo Charlier, Study No.35

Moderato (M. M. 80 = ♩)

The musical score is written for a single melodic line on a grand staff. It begins with a treble clef, a key signature of three flats (B-flat, E-flat, A-flat), and a 3/4 time signature. The tempo is marked 'Moderato' with a metronome marking of 80 quarter notes per minute. The score is characterized by extensive use of slurs, often covering multiple measures and notes. Triplets of eighth notes are frequently employed, with fingerings 1, 2, 3 indicated above them. Dynamic markings include *(p)* (piano), *dolce*, *simili*, *mf* (mezzo-forte), and *p* (piano). The piece concludes with a final cadence on the twelfth staff, marked with a fermata and a final double bar line.

The Slide

Originally, the supplemental tubing of the valves was of a fixed length. Instruments built like this could not support crooks without becoming insurmountably out of tune.

Toward 1830, Meifred, horn teacher at the Paris Conservatory, created movable tubes, called slides, which made it possible to proportionally adjust the slides of each crook used.

Théo Charlier

The Mute

Today the mute is an indispensable accessory which the player must always have with him, just like his mouthpiece. It is a cone shaped stopper that you put into the bell of the instrument in order to decrease the forcefulness of the sound and give it a shimmering softness.

In the orchestra, the mute can create a unique sound as well as strange and unexpected timbres.

According to Fétis “it was Lebrun (who lived at the end of the 18th century), a french horn player in the service of the King of Prussia, who came up with the idea to use a conical box made of cardboard, pierced with a hole, to create an echo effect.” This statement is known to be incorrect, as the mute was well known before this time. Father Mersenne already made mention of it in his book on musical instruments which first appeared in 1636.

To the best of my knowledge, the first composition that required the use of a trumpet mute is the opera *Orfeo* by Claudio Monteverdi, performed at the Court of Mantoue in 1607, which included an overture (Toccatà for five muted trumpets) whose included parts were called “Clarino, Quinto, Alto e basso, Vulgano, and Basso”. These five parts were written for natural instruments using only the harmonic scale. It is worth noting that Monteverdi wrote these trumpet parts a tone lower than the key of the piece because the mutes of the time raised the pitch a full tone. In the original part we can clearly read “*Un Clarino con tre trombe sordini.*”

We see the mute again later in the works of Mozart, where it is explicitly used. With Wagner the mute reappeared and became a regular accessory for all brass instruments. In the past, the mute was used in the opera and funeral services, as it is very much used today, and produces a striking effect.

The mutes we use today are made of brass, wood, cardboard, and other materials. Many different variations have been invented and constructed. The best mute is obviously one that does not alter the tuning across the full range of the instrument, but one like this is very difficult to find. We should demand this of instrument makers.

The accessory must be perfect.

Théo Charlier
Brussels, December 1940

Rules & Exceptions

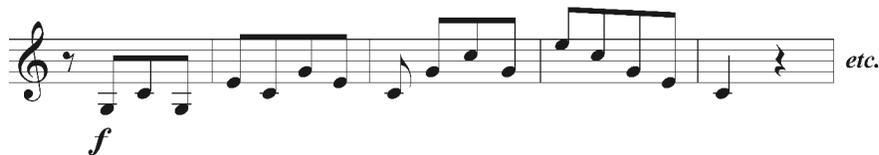
If the trumpeter must use an instrument in a single key, it goes without saying that he will, occasionally, hit some stumbling blocks.

Take for example this excerpt from the *Allegro* of the Overture to William Tell:

Trumpet in E



and this excerpt from the end:



as well as other excerpts of this kind, common to parts for trumpet in E (also refer to the note *The Trumpet in E-Sharp*). While playing these excerpts on the trumpet in B-flat, one must play an augmented fourth higher, which is rather difficult to execute in a lively tempo. It would be much easier to execute these passages with all three valves lowered, after having moved the 1st or 3rd slide in order to make the instrument in tune with the trumpet in E (resulting in the lowering of the pitch by a diminished fifth with the three valves). One would then play the notes as like an open trumpet in E, with no need for other fingerings, the instrument would essentially become a natural trumpet in E while keeping its original character; you can be the judge of this.

The same effect is produced by playing the parts written for trumpet in F by lowering the 1st and 3rd valves and pulling out the movable slide on the 1st or 3rd piston.

For players using crooks, the same effect can be produced. If you use a crook in A, playing with three valves depressed and pulling the slides appropriately you get a natural trumpet in E-flat.

I don't recommend this except for when playing military calls or other music with special requirements.

Théo Charlier

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