

THEO CHARLIER

TRENTE - SIX

ÉTUDES TRANSCENDANTES

pour TROMPETTE

CORNET A PISTONS ou BUGLE Si b

Nouvelle édition



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1

Allegro (M. M. de 108 à 120 environ)

sans force

p

mf

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

f *p*

mf

p *crescendo* *mf*

I: Tempo

f *poco rit.* *mf*

f *en élargissant* *p*

mf *f*

(1) Ce signe v indique une respiration

*) Pour l'étude de l'articulation, nous conseillons à l'élève de se reporter aussi à :

R. LAURENT: Etudes pratiques, Etude N°1; MAXIME ALPHONSE: Etudes Nouvelles, N°4 (2^d cahier) (Edⁿs Alphonse Leduc)Copyright by ALPHONSE LEDUC et C^{ie} 1946

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5

Allegretto (M. M. 84 = ♩)

mf

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

p *poco rit.* *dolce*

sous forme e récit

poco rit. espressivo string.

cresc. *p*

rit. *mf*

sostenuto *p* *ad lib.* *mf* *Trillez avec 1^{er} et 2^e 3^e*

(♩ = ♩ du II^e mouv!)

retenir peu a peu

* Voir G. BALAY: N^{os} 4-8-13; A. CHAVANNE: N^o 23;
ARBAN: N^{os} 2-8-12; A. PETIT: N^o 4-8

INTERVALLES (Les Tierces)^(*)

No 3

12

Scherzando (M.M. 100 = ♩)

mf *f* *mf* *f* *p* *f* *mf* *p* *pp* *rit.*

Meno mosso

dolce

f *p staccato simple*

staccato binaire *f staccato ternaire*

p *f*

Ben cantabile

dolce

* Voir G. BALAY: N° 1-15; A. CHAVANNE: N° 1; R. LAURENT: N° 1-5

CONSEILS AUX JEUNES ARTISTES

A l'orchestre l'artiste a de la tenue et ne parle pas pendant l'exécution d'une œuvre (sauf en cas d'absolue nécessité).

Il est muni d'un instrument en parfait état de fonctionnement et est en possession d'une bonne sourdine qui n'altère aucun son de l'échelle complète.

Il ne prélude pas à l'orchestre et a particulièrement soin d'éviter de faire entendre des fragments de thèmes ou traits de l'œuvre que l'on doit interpréter, ce qui est de très mauvais goût.

Il ne tourne pas les pages avec bruit, surtout pendant un silence général.

Il se trouve au pupitre à l'heure indiquée et pendant les répétitions le quitte le moins possible.

Il tire les coulisses de son instrument avec douceur en baissant les pistons ou cylindres afin que ceux-ci n'explosent pas à cause de l'air comprimé qu'elles contiennent. (suivre page 17)

7 **Andante con moto** (M.M. 66 =)

A.L.20-457

eres - - een - - do

f marcato

p *f*

f largement *p*

f *sfz* *f* *ff*

ÉVITONS L'EMPLOI DU CORPS OU TON DE RECHANGE

Les petits instruments à embouchures, quels qu'ils soient, ne doivent ni ne peuvent rationnellement s'employer que dans une seule tonalité. Changer de ton c'est déséquilibrer l'instrument. Il faut, à chaque mutation, l'accorder avec un soin méticuleux que l'exécution de certaines œuvres rend parfois impossible. Les artistes qui utilisent cette catégorie d'instruments (trompettistes, cornettistes, cornistes) devront s'astreindre à connaître à fond la transposition et n'admettront le corps de rechange que dans des cas *absolument* difficiles. Mais un exécutant sérieux tentera toujours de vaincre la difficulté qui, le plus souvent, n'est qu'apparente; il s'apercevra vite qu'un peu de pratique le rendra maître de tout ce qu'on lui présentera.

En attendant cette maîtrise à se servir d'un instrument à ton unique, il sera bon, puisqu'on utilisera le corps ou ton de rechange, d'apprendre à régler proportionnellement chaque coulisse d'après les données suivantes qui sont théoriquement exactes:

- 1°. doubler la longueur tirée à la coulisse du 2^d au 1^{er} piston;
- 2°. tripler la longueur tirée à la coulisse du 2^d au 3^e piston.

Omettre ce réglage serait une faute grave qui compromettrait, au point de vue de la justesse, non seulement le pupitre auquel on appartient mais encore l'accord de tout un orchestre et la réussite d'une œuvre que l'on "exécuterait" alors dans le sens sinistre du mot.

No 5

6

All^o assai (M.M. 112 = ♩)

mf

al Coda

p

p

f

mf

f

p

crescendo

f

dolce

f

sans ralentir

CODA

eres - - - cen - - - do *f p*

eres - - - cen - - - do *f*

poco allargando

(*) Voir A. CHAVANNE: N° 24; ARBAN: N° 8

Tableau de l'étendue chromatique possible sur les TROMPETTE SOPRANO, CORNET à PISTONS en UT-SIB et LA, PETITE TROMPETTE en RÉ et BUGLE SIB ⁽¹⁾ d'après les harmoniques naturelles en partant du son deux et avec toutes les combinaisons de doigts.

LE SON UN (*inusité*) n'est pas indiqué dans ce tableau.

LE SON SEPT est trop bas, sauf les sons renfermés dans les ronds, qui, par la combinaison des pistons, rentrent dans la catégorie des sons justes.

Les sons marqués d'une + s'altèrent par l'addition simultanée des pistons et peuvent être rendus justes par l'emploi d'une coulisse mobile du premier ou troisième piston.

Les sons entourés d'un losange bénéficient d'une justesse normale par l'allongement proportionnel apporté à la troisième coulisse. On doit conséquemment s'abstenir de se servir du troisième piston isolément à cause de la modification susdite.

LES SONS ONZE et TREIZE sonnent exactement entre les deux notes qui se trouvent écrites dans les carrés, trop hauts pour la note inférieure et trop bas pour la note supérieure.

⁽¹⁾ Ce tableau des harmoniques est réglé selon la notation usuelle admise pour l'écriture de ces dits instruments, donc à l'8^e haute des harmoniques réelles et dont on trouvera l'explication à la page 35

HARMONIQUES

Tous les sons résultant de l'emploi simultané de deux ou trois pistons étant toujours trop hauts, il est préférable d'employer le plus souvent possible le doigté le plus simple, à l'exception des notes qui sont plutôt tempérées dans ce registre et admises comme doigté courant.

No 6

9 Andante cantabile sans lenteur (M.M. 63 = ♩)

dolce

p

espressivo

f

f

p

f

poco a poco string. e cres.

cen do

senza string.

p

ad libitum

rit.

Tempo

mf

f

poco agitato

dolce

f

dolce

^(x) Voir note de la page 5

senza agitato

cres - cen - do

I: Tempo

rall. p dolce

f espress. dim.

tr. mf

écho doux

ppp

poco a poco rall. e dim.

THEORIE DE L'INSTRUMENT

Il n'est aucun instrument à trois pistons (ou à cylindres) qui soit d'une justesse parfaite lorsqu'il y a combinaison de pistons (ou cylindres) pour former un son. En voici la raison:

L'emploi séparé des pistons allonge la colonne d'air de telle sorte que le son s'abaisse:
 d'un ton si l'on presse le 1^{er} piston;
 d'un demi-ton si l'on presse le 2^d piston;
 d'un ton et d'un demi-ton si l'on presse le 3^e piston.

Ici nous avons entière satisfaction.

Mais servons-nous, par exemple, d'une trompette en Si $\flat$ (longueur théorique 1 m^{re} 475) dont nous presserons à la fois les trois pistons pour qu'elle nous fasse entendre  ces notes exigent une colonne d'air supplémentaire de 0 m^{re} 612. L'ensemble des trois coulisses libérées par les trois pistons abaissés devraient donc nous fournir ce supplément. Mais le 1^{er} piston abaissé nous donne une longueur de 0 m^{re} 181, le 2^d 0 m^{re} 088 et le 3^e 0 m^{re} 279 ce qui fait au total 0 m^{re} 548. (*suivez page 15*)

No 7

10

Moderato (M.M. de 100 à 112 = )


sans force

pp subito *revenir peu à peu à*

une sonorité modérée

f *mf* *f* *mf*

p

Cette étude peut être transposée en La b et en Si b majeur.

* Voir G. BALAY: N. 15; A. CHAVANNE: N. 5-12; MAXIME-ALPHONSE: N. 5 (2^e cahier)

poco a poco eres - - - cen - - - do

mf *f*

ff mf

p *eres - - - cen - - - do* *mf*

f

THEORIE DE L'INSTRUMENT (SUITE)

Il manquera donc 0 m^{re} 612 - 0 m^{re} 548 = 0 m^{re} 064 et les sons obtenus sont trop aigus.

Toutes ces mauvaises notes se corrigent le plus souvent au moyen des lèvres. Il va sans dire que la justesse ne pourra s'acquérir qu'au prix d'un très gros travail et d'exercices répétés. Il existe des instruments à coulisse mobile du premier piston, assez rares maintenant il est vrai. La coulisse mobile du troisième piston se rencontre plus fréquemment aujourd'hui et donne satisfaction.

INTERVALLES (Les Quartes)

No 8

13

Andantino (M. M. 60 = ♩)

ben cantabile

marcato *dolce*

sfz

poco a poco

cres - cen - do e strin - gen - do

Tempo I^o

mf

f sfz sfz sfz

mf

dolce

f mf

f p écho f p écho mf

écho

p mf p f

en élargissant un peu

sans retard

SUITE DES CONSEILS AUX JEUNES ARTISTES (voir page 7)

Il ne souffle pas violemment dans son instrument pour se débarrasser de l'eau provenant de la condensation de la vapeur qui accompagne le souffle. Celui-ci légèrement introduit et un peu prolongé est de beaucoup plus efficace.

Il a accordé et réglé son instrument au préalable. Lorsque cet accord a été fait dans une pièce attenante à la salle de concert ou de spectacle il a soin de s'inquiéter de la température de celle-ci sachant que la vitesse du son augmente par la chaleur et diminue par le froid et fait par conséquent monter ou descendre l'instrument selon le cas.

S'il est tenu par une circonstance quelconque de devoir s'éloigner de l'orchestre pour y interpréter une sonnerie ou un solo dans le lointain, sachant aussi que le son baisse sensiblement par l'éloignement, il hausse son instrument selon le besoin et a eu la prudence d'en régler d'avance la mesure.

Il compte ses mesures avec soin, toutefois pendant une exécution il se fie parfois autant à une bonne et sérieuse réplique qu'aux mesures comptées, une erreur est vite faite et une bonne réplique ne ment pas.

Il suit les impulsions du chef. Il est souple et attentif, cède ou altère un son selon que celui-ci s'enchaîne avec tel ou tel autre instrument ou telle autre phrase. Il augmente ou diminue une nuance demandée afin de contribuer au bon ordre de l'exécution.

A ces seules conditions l'artiste se tient à la hauteur de sa tâche, se fait estimer et considérer.

No 9

19

Allegro scherzando (M.M. 84=♩)

leggero
p
mf *dolce*
mf
f *mf*

The musical score consists of 13 staves of music in 3/4 time. The key signature has two flats (B-flat and E-flat). The tempo is marked 'Allegro scherzando' with a metronome marking of 84 = ♩. The score includes various musical notations such as triplets, slurs, and dynamic markings. The dynamics range from *mf* (mezzo-forte) to *f* (forte). The articulation includes *leggero* (light) and *dolce* (sweet). The score is written for a single melodic line.

mf

p

poco a poco eres cen-do

poco diminuendo

I.º Tempo

poco ritenuto

f

poco allargando

pp

TABLEAU DES HARMONIQUES DE LA FONDAMENTALE AU SON 24

Les chiffres représentent le nombre de divisions du corps sonore, bien que les harmoniques employées se réduisent à 18, il n'est pas sans intérêt, de savoir à quels sons correspondent les harmoniques 19, 20, 21, 22, 23 et 24. (Pour les harmoniques 7, 11, 13, 14 voir page 11) L'harmonique 15 est trop basse et les 21, 22 et 23 sont inusitées.

DU RYTHME

No 10

24 Andante (M. M. 60 = ♩)

dolce

poco rit.

scherzando

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

Tempo

mf *rallentando* *p* *dolce*

f

p

f *mf* *mf*

stringendo **f**

92 = ♩

dolce

marcato

p *f* *f*

p *poco rit.*

Allegro *staccato ternaire*

p *stacc. binaire*

crescendo *f* *p*

f *en élargissant*

LE MÉTRONOME

(du grec *metron* (mesure) et *nomos* (loi, règle, règlemesure))

Les chiffres placés sur la bande blanche qui se trouve derrière le balancier indiquent le nombre d'oscillations qu'il exécute dans une minute. Ainsi 48, 88, 116, etc. indiquent que si le poids mobile fixé au balancier est placé vis-à-vis d'un de ces numéros, ce balancier donne 48, 88, 116 oscillations par minute perceptibles pour l'oreille par les coups de tic-tac que produit chaque oscillation.

N° 11

25

All^o moderato (M. M. 108 = ♩ .)

mf fieramente
sffz *sffz* *sffz* *sffz* *sffz* *sffz*
p *f* *p*
f *p* *f* *sans retard*
f *p*
f *p* *f*
mf *f* *mf* *f*
sans retard
f *p dolce*
f

Etude préparatoire pour mon Solo de Concours.

* Voir R. LAURENT: N°s 2-9; MAXIME-ALPHONSE: N°s 2-18

A.L.C. 45

Listesso tempo

trille $\frac{1}{3}$ -8) *f* *mf léger*

p *mf*

p *crescendo* *mf* *cresc.*

sans retard *f* *mf*

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

cresc. *f* *mf*

poco a poco stringendo e crescendo f

Tempo fieramente

mf *sfz* *sfz* *sfz* *f*

(1) La plupart du temps ce rythme n'est pas observé. C'est regrettable. On y arriverait peut être en s'exerçant à jouer d'après l'écriture suivante: A) doubler le point de la première note, B) faire une triple croche de la 2^e note, C) donner à la 3^e croche sa valeur exacte:

Exemple  On conserverait alors avec plus de chance le caractère précis de ce groupement. Mais l'exemple n'est ici qu'un moyen. Il est préférable de respecter l'écriture existante.

dolce

mf

moins fort

mf

poco a poco crescendo

f sfz sfz

L'AIR est l'unique corps qui vibre dans les instruments à vent. Qu'ils soient construits en bois, en verre, en cuivre, en bronze, le timbre est identiquement le même. Des expériences concluantes commencées vers 1846 (dit Victor Mahillon) par Adolphe Sax, facteur belge établi à Paris, ont démontré que la nature des parois est sans effet sur la formation du timbre. Les proportions de la colonne d'air déterminées par la forme du tuyau et la manière dont les vibrations de l'air sont engendrées sont les seules causes de la variété du timbre. (Voyez la trompette en bois qui sert à démontrer que l'air est l'unique corps qui vibre dans les instruments à vent); cet instrument a naturellement un timbre identique à celui d'une trompette en cuivre, elle est en Mi $\flat$ et produit les sons suivants:

2 3 4 5 6 7 8 9 10

Marque C. MAHILLON. Musée du Conservatoire de Bruxelles N° 572 du 1^{er} tome, 2^{me} édition. Don de VICTOR MAHILLON.

N° 13

29

Allegretto (M.M. 54 = ♩)

dolce

p

p

f

mf

poco a poco cresco.

f

p

Tempo

poco rit.

dolce

f

mf

lent

pp

ppp

poco a poco ritenuto e diminuendo

№ 14

8

Moderato (M. M. 76 = ♩.)

dolce

eres - - een - - do

f *mf*

p *moins p*

mf *p*

à l'aise *dolce*

Tempo I?

cédez un peu

Tempo I?

Tempo

poco ritenuto *mf* *f*

A transposer un ton plus haut (en Mi mineur).

« une tierce mineure plus haut (en Fa mineur).

« une quarte mineure plus haut (en Sol mineur) en Staccato binaire.

(*) Voir R. LAURENT: N° 3

INTERVALLES (Les Quintes)

N° 15

14

Allegro gai et vif (M. M. 120 environ = ♩)

f
mf
simili
Tempo
ff
mf
rall.
plent
ff
mf
rall.
plent
Tempo
mf
crecendo
dim. e rall.
Andante (126 = ♩) benevento
dolce
sfz
sfz
sfz
dolce
mf
mf
mf

poco a poco
4. L. 20. 1919

poco rit.

All. marcato (100 = ♩)

f

mf *cresc.*

f

mf

p *mf* *f*

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

Tempo I°

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

f *p* *f*

mf simili

p

poco a poco crescen-do

f *f* *f* *p* *f* *sfz*

N° 16

DU STACCATO BINAIRE^(*)2 Allegro (M. M. 84 = ♩)* Pour obtenir ce trémolo brisez la colonne d'air en employant alternativement le 1^{er}, puis les 1^{er} et 3^{es} pistons. Appuyez donc le 1^{er} piston et trémolez avec le 3^e.

The musical score consists of 14 staves of music in treble clef, 2/4 time, with a key signature of one sharp (F#). The piece is marked 'Allegro' with a tempo of 84 beats per minute. The notation includes various dynamic markings and performance instructions:

- Staff 1:** *dolce*
- Staff 2:** *dolce*
- Staff 3:** *f*
- Staff 4:** *moins fort*
- Staff 5:** *mf*
- Staff 6:** *p*
- Staff 7:** *f*
- Staff 8:** *f*
- Staff 9:** *dolce*
- Staff 10:** *f dolce*
- Staff 11:** *poco a poco crescendo*
- Staff 12:** *tremolo**
- Staff 13:** *f*
- Staff 14:** *f*

The score features a variety of rhythmic patterns, including sixteenth and thirty-second notes, and rests. The final measure of the piece is marked with a fermata and a triplet of eighth notes.

(*) Voir aussi: G. BALAY, 15 Etudes, N° 12; A. CHAVANNE, Etudes Caractéristiques, N° 9-13-21; R. LAURENT, N° 10; A. PETIT, Grandes Etudes, N° 41 (Ed^{ns} Alphonse Leduc)

N° 17

15

Vivo (M.M. 69 = $\frac{1}{2}$ environ)
Imitez la cloche

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
mf f p poco ritenuto
f p sfz p sfz p sfz p
Poco meno mosso. Cantabile
dolce
Tempo
mf
cédez un peu
Pas trop vite
retenez
sans forcer le son
ten. ten. ten. ten. 1
écho f p écho
rit. dolce

The musical score consists of 13 staves. The first three staves feature complex rhythmic patterns with fingerings (0, 3, 0, 3) and dynamic markings (*mf*, *f*, *mf*). The fourth staff is marked *Tempo* and *dolce*. The fifth and sixth staves continue the melodic and harmonic development. The seventh staff includes the lyrics "poco a poco cres - cen -" and the tempo marking *Tempo I°*. The eighth and ninth staves show dynamic contrasts with *sfz p* and *mf*. The tenth staff is marked *Poco meno mosso* and *dolce*. The eleventh and twelfth staves feature a *poco crescendo* and end with *sfz p* markings. The thirteenth staff concludes the piece with *sfz p* markings.

*Il suffit pour obtenir ce tremolo d'employer les doigtés indiqués.

DU STACCATO TERNAIRE (*)

N° 18

3 Moderato M.M. 100 = 


marchato

simili

poco rit.

Tempo

p

poco rit.

f

mf

sfz

mf

Un peu moins vite

mf

I^o Tempo

marchato

f

molto ritenuto

(1) Ce nouveau signe  indique un petit arrêt moins long que le point d'arrêt  ancien.

(*) Voir A. CHAVANNE: N° 17-20; G. BALAY: N° 2

INTERVALLES (Les Septièmes)^(*)

f marcato *p* *mf*
f *p*
mf *eres* *een* *do* *f* *p*
eres *een* *do* *f* *mf*
f *p* *marcato*
p *marcato* *p*
Poco più mosso (72 = ♩)
cédez un peu *dolce*
mf *p* *mf* *p*
mf *p*
mf
p *eres* *een* *do*
f

* Voir ARBAN: les septièmes; MAXIME-ALPHONSE: N° 19

(152 = ♩) *dolce*

p *f*

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*

TABLEAU INDICATEUR DES TONS OU CORPS DE RECHANGE

FRANÇAIS	en Ut	en Ré $\flat$	en Ré	en Mi $\flat$	en Mi	en Fa	en Sol	en La $\flat$	en La	en Si $\flat$	en Si $\sharp$
ITALIEN	in Do	in Re $\flat$	in Re	in Mi $\flat$	in Mi	in Fa	in Sol	in La $\flat$	in La	in Si $\flat$	in Si $\sharp$
	ou in C	in D $\sharp$	in D	in E $\sharp$	in E	in F	in G	in A $\sharp$	in A	in B	in H
ALLEMAND	in C	in D $\sharp$	in D	in E $\sharp$	in E	in F	in G	in A $\sharp$	in A	in B	in H

PAR MOUVEMENTS CONJOINTS ET AUX RYTHMES VARIÉS (*)

N° 20

11 Andantino (M. M. 72 = ♩)

doux

Tempo *cédez un peu*

f marcato

mf *mf* *mf* *mf* *mf* *mf*

SCHERZO

Vivo (à un temps) (69 = ♩)

dolce leggiero

mf

f *p*

Cette étude peut être transposée un demi ton plus bas.

*) Voir R. LAURENT: N° 20

Tempo I

en retenant un peu

mf

La croche équivaut à la croche de la mesure précédente

doux

($\frac{2}{3} = 3$)

en valentissant

p

LOCUTIONS ÉTRANGÈRES

du mot "SOURDINE" et de son emploi

FRANÇAIS	ITALIEN	ALLEMAND
Sourdine	{ Sordina Sordino	Dämpfer
Avec Sourdine	{ Con Sordina Mettere Sordina	Mit Dämpfer
Enlevez la Sourdine	{ Via Sordina Sordina levata	{ Ohne Dämpfer Dampferweg
Otez la Sourdine	Senza Sordina	
Sans Sourdine	Ancora Sordina	Noch Dämpfer
Encore la Sourdine		
Bouché	Fermata	{ Gestopft Gedämpft

No 21

17

Moderato (M.M. 69 = ♩. environ)

sans forcer le son

The musical score consists of 17 measures of music in 9/8 time, marked Moderato. The key signature has three flats (B-flat, E-flat, A-flat). The first measure is marked *sans forcer le son*. The score includes various musical notations such as notes, rests, and dynamic markings like *ritenuto* and *dolce*. The tempo marking *Stesso tempo* appears at measure 14, and *Tempo* appears at measure 15. The score concludes with a double bar line at measure 17.

f *p* *en ralentissant*
Andante espressivo
peu à peu douce
mf *p*
poco a poco stringendo e crescendo *f* *diminuendo*
Tempo
e ritenuto *douce*
Moderato
en retenant beaucoup *comma 1^o*
en élargissant

eres - een - do

t t k t k t

t t k t k t

LOCUTIONS ÉTRANGÈRES

des mots: TROMPETTE, CORNET À PISTONS, BUGLE, etc.

FRANÇAIS	ITALIEN	ALLEMAND
Trompette	{ Tromba - Clarino Trombetta	Trompete
Trompettes	Trombe - Clarini	Trompeten
Trompette à Clefs	Tromba a Chiavi	Klapptrompete
Cornet à Pistons	{ Pistoner - Cornetto Cornetto a macchina Cornetto a pistonni	{ Tromba - Kornett Ventil Kornett
Bugle	Flicorno	Flügelhorn
Bugle à Clefs	Flicorno a Chiavi	Klappenhorn
Trompette à Pistons	Tromba a Macchina	Ventil Trompete
Trompette basse	Tromba bassa	Bass Trompete
Petite Trompette en Ré	Piccola Tromba in D	{ Kleine Trompete in D Piccolo Trompete in D

JC 23

35 Allegro moderato (M. M. 92 = ♩)

fieramente

meno forte

rit.

Tempo

dolce

(*) Voir A. CHAVANNE: N° 15; G. BALAY: N° 14-15.

Lent M.M. ♩ = 64 *crescendo poco a poco f* *ritardando*

ben canto

poco a poco stringendo

revenir peu à peu au 1^{er} mouv! *Tempo I?*

fieramente

mf

crescendo *f rubato*

A TRAVERS LA PARTIE DE TROMPETTE DE L'ŒUVRE DE RICHARD WAGNER

N° 24

21 (M.M. 72=d)

f *fieramente* *moins fort* *f*

LOHENGRIN RIENZI LOHENGRIN RIENZI
"LE JUGEMENT DE DIEU"

LOHENGRIN RIENZI
"THÈME DE LOHENGRIN" *p* *poco a poco* *eres - een - do*

f *mf* *f*

TRISTAN ET ISEULT
"THÈME DE LA MORT" *p* *molto espressivo*

p *poco a poco* *eres - een - do* *f*

LES MAÎTRES CHANTEURS
mf *f* *mf*

THÈME DE LA BASTONNADÉ *p* *Molto mod^{to} (68=d)*
Trompette obligée

"KAISER MARCHE"
dans l'ouverture *mf* *p*

poco a poco *eres - een - do* *f*

en retenant un peu *mf* *p* *pp* *ppp* *mf* *dim.*

THÈME DE L'ÉPÉE *f* *molto energico* *moins fort* *f*

(1) Le Cor des Alpes est ordinairement joué sur une trompette sourdine dans les coulisses.

"LES NORNES"
 "THEME DE LA FORGE" *diminuendo* *pp*
 "LES NORNES" *pp*
 "LA FORGE" *moins p* SIEGFRIED "L'OISEAU" *f*
f marcato *écho*
 (1) "RYTHME DE LA CHEVAUCHÉE" *mf*
moins fort *f*
 SIEGFRIED "LE FILS DES BOIS" *pp* *f* *mf*
dim. *p* *poco rallentando* *presque lent*
 PARSIFAL "LA CÈNE" *Molto lento* *p très doux* *sf* *dim.*
 L'OR DU RHIN "LE TRAITÉ" *All. pesante* *pp* *f* *Allegro* *p crescendo poco a poco*
 VAISSEAU FANTÔME *f*
 CRÉPUSCULE DES DIEUX *f* L'OR DU RHIN "INCANTATION DU TONNERRE" *f*

LE PAVILLON détermine la justesse des harmoniques mais n'altère en rien le timbre ni la sonorité.

(1) LE RYTHME est l'ordre et la proportion dans le temps. (VINCENT D'INDY)

DU COULÉ (*)

№ 25

33 Scherzo (M. M. de 76 à 80 = J.)

dolce

p

cres - een - do f p

p poco a poco cres

- een - do - p

p

f

sfz

* Voir A. CHAVANNE: N° 16; ARBAN: N° 8

4.1. 20. 452

Musical score for a piano piece, page 49. The score consists of 13 staves of music in G major. It features various dynamics including *sfz*, *f*, *mf*, and *ff*, and performance instructions such as *eres - - cen - - do*, *dolce*, *diminuendo*, *f stretto*, and *ff poco allargando*.

dolce

Poco meno mosso

poco ritenuto

Tempo

cédez un peu

1º Tempo

en retonant un peu

soutenu et un peu retenu

staccato binaire *t t k t k t k simili*

p *p leggiero* *t t k t k* *t t k t k* *t t k t k simili*

f *f* *Modéré (a un tempo) (M. M. 72 = ♩)*

p *f* *p* *poco rit.* *mf espressivo*

Moderato tranquillo (1° Tempo) *rallentando e diminuendo*

p *doux*

Tempo *rall. molto* *rall. molto*

Tempo *poco a poco crescendo* *f*

Presto *staccato simple* *p* *poco a poco*

crescendo *f* *ff* *sforzando* *f*

DU STACCATO TERNAIRE (*)

N° 28

20

Prélude

f *ad libitum* *mf* *f*

f *mf*

f *pp* *écho* *f* *poco rit.*

p *molto rit.* *mf*

marquez le thème

3 *3* *simili* *mf*

douce *mf* *p*

mf

leggero

moins fort

staccato simple *Poco meno mosso*

p *staccato ternaire*

en retenant

(*) Voir A. CHAVANNE: N°s 18-19; ARBAN: airs variés; A. PETIT: N° 12

f
écho
f
écho
poco a poco crescendo
Tempo I^o
f
dolce
f
moins fort
f
poco allargando

Un travail bien compris, si court soit-il, est plus profitable que de longues heures d'études mal dirigées.

J.B. ARBAN

LE MORDANT (*)

N° 29

32

All^o deciso energico (M. M. 152 = )
)' and 'dolce ben canto'. The score concludes with a 'dolce' marking." data-bbox="60 91 914 886"/>

f

rit. *Tempo*

Lent (69 = )

dolce ben canto

dolce

(*) Voir A. CHAVANNE: N° 44

poco rall. *f energico* *rit.* *Tempo*

t t k t k t k *simili* *eres - een - do*

LONGUEURS D'INSTRUMENTS

-trompette si bémol	= 1,475 m.
-cornet a piston	= id.
-bugle si bémol	= id.
-clairon	= id.
-trompette de cavalerie (mi bémol)	= 2,211 m.
-trompette basse de cavalerie	= 4,422 m.

MARCHE (x)

№ 30

93

(1) Mouvement de Marche (M.M. 108 = ♩)

The musical score is written for a single melodic line on a treble clef staff. It begins in the key of D major (two sharps) and 4/4 time. The tempo is marked 'Mouvement de Marche' with a metronome indication of 108 beats per minute. The score consists of 12 staves of music. The first staff starts with a forte (f) dynamic. The second staff continues with a forte (f) dynamic. The third staff continues with a forte (f) dynamic. The fourth staff continues with a forte (f) dynamic. The fifth staff continues with a forte (f) dynamic. The sixth staff continues with a forte (f) dynamic. The seventh staff continues with a forte (f) dynamic. The eighth staff continues with a forte (f) dynamic. The ninth staff continues with a forte (f) dynamic. The tenth staff continues with a forte (f) dynamic. The eleventh staff continues with a forte (f) dynamic. The twelfth staff continues with a forte (f) dynamic. The score includes various musical notations such as eighth notes, sixteenth notes, and triplets. The dynamics range from forte (f) to piano (p). The tempo is marked 'Mouvement de Marche'.

① Dans cette étude le temps reste le temps de même mouvement qu'il soit employé en mesure simple, brève, composée ou autres.

② Voir R. LAURENT: N° 16

A.L. 20.452

f *poco ritenuto* *f* *Tempo I°*

dolce *mf* *p poco a poco ritenuto* *f* *Tempo I°* *p* *mf* *f*

CLASSIFICATION DES INSTRUMENTS A EMBOUCHURES

(d'après Victor Mahillon)

Le timbre est uniquement dû à la forme de la colonne d'air, aux proportions du tuyau.

COR; tuyau étroit et conique. Timbre doux.

CORNET; tuyau étroit moins conique que celui du Cor. Timbre doux mais avec un peu plus de mordant que celui du Cor.

TROMPETTE; tuyau étroit et cylindrique sur une grande partie de la longueur. Timbre éclatant.

TROMBONE; qui veut dire grande trompette, même forme de tuyau et même timbre.

BUGLE; tuyau large et conique. Timbre mœlleux.

BUGLE ALTO

BUGLE BARYTON

TUBA

BOMBARDON

Famille des instruments dite des SAX-HORNS

N^o 31

31

Prélude

ad libitum

dolce

f

p

Allegro (M. M. 116 = ♩)

mf

a Tempo

poco rit.

dolce

f

p

f

mf

rit.

p

* Voir R. LAURENT: N^o 5; A. PETIT: N^o 11

The musical score consists of ten staves of music in E major (one sharp). The notation includes various dynamics and tempo markings:

- Staff 1: *f* (forte), *poco ritenuto* (slightly slowed), *diminuendo* (diminishing).
- Staff 2: *Tempo* (return to tempo).
- Staff 3: *rit.* (ritardando).
- Staff 4: *Tempo* (return to tempo).
- Staff 5: *f* (forte).
- Staff 6: *p* (piano).
- Staff 7: *mf* (mezzo-forte).
- Staff 8: *f* (forte).
- Staff 9: *f* (forte).
- Staff 10: *pp* (pianissimo), *f* (forte), *f* (forte).

DE LA TROMPETTE EN MI

Nous rencontrons parfois au théâtre les indications suivantes: trompette si dièze, trompette mi dièze. L'auteur-AUBER, dans "Fra Diavolo"; MEYERBEER, dans "Les Huguenots"; ROSSINI, dans "Guillaume Tell"- n'a voulu employer que la trompette en mi ou la trompette en si. En ajoutant ce bizarre dièze, il voulait spécifier qu'il était bien question de tonalités chargées de dièzes et non d'autres. Au demeurant, ces indications ne se rencontrent que fort rarement et ne constituent qu'une anomalie.

DE LA LIAISON DES HARMONIQUES (*)

№ 32

26

Moderato (M.M. 104 = ♩)

sans efforts, sonorité pleine et douce

* V. G. BALAY: N° 14-15; R. LAURENT: N° 6; MAXIME-ALPHONSE: N° 14; A. PETIT: N° 3-10



LA TRANSPOSITION étant une spécialité du trompettiste, il est de toute nécessité qu'il s'y habitue aussitôt que son éducation musicale le lui permet. Il doit la travailler journellement. Nous conseillons donc de revoir certaines leçons plus faciles et de s'exercer grâce à elles à transposer un ton plus haut, puis un ton plus bas, etc. Les transpositions, à la quarte majeure (triton) et à la quinte supérieure prennent dans la pratique une très grande importance surtout pour l'artiste qui utilise à l'orchestre une trompette si bémol. Mais naturellement, l'élève a le devoir de se familiariser avec toutes les transpositions.

EN STACCATO TERNAIRE (*)

N° 33

36

Moderato (M.M. 88 = ♩)

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

cres *cres*

Un poco meno mosso *t k t t k*

f *mf* *mf* *p* *f* *p* *crescendo* *p* *mf* *cres - - cen - - do* *f* *p* *f* *mf* *f* *p* *p* *f* *ff*

FANTAISIE RYTHMIQUE (*)

N^o 34

28 Andante (M. M. 76 = ♩)

dolce

sostenuto

I^o Tempo

poco rit.

f

p

mf

eres - cen - do

p

Tempo I^o

dolce

ten.

poco allargando

Allegro (112 = ♩)

staccato binaire

légèrement

poco a poco cresc.

mf *diminuendo*

p

sans retard

DU TIMBRE

Le timbre éclatant de la trompette est dû à ce que sa colonne d'air est presque entièrement cylindrique; la forme curviligne de l'embouchure augmente encore l'effet.

[illegible]

DE LA COULISSE

Primitivement les tuyaux supplémentaires des pistons qui nous donnaient les longueurs voulues à l'abaissement général de l'instrument étaient de longueur fixe. L'instrument ainsi construit ne supportait aucun corps de rechange sans devenir insupportablement faux.

Vers 1830, Meifred, professeur de Cor à pistons au Conservatoire de Paris, imagina d'en faire des tuyaux mobiles, dénommés COULISSES, ce qui permet l'allongement proportionnel pour chaque corps de rechange qu'on emploie.

LES TRILLES^(*)

୩୯ ୩୬

27

Lento (M.M. 60 =)

27 Lento (M.M. 60 = ♩)

dolce

p

ritenuto

(1) *ad libitum*

On doit exécuter ce dernier trille avec les lèvres en gardant baissés les deux premiers pistons.

(*) Voir ARBAN: page 111 (les trilles); A. CHAVANNE: N° 6
A. 20. 452

*Thirty-Six Transcendent Studies
for Trumpet, Cornet or Fluegelhorn in B-flat*

by Théo Charlier

English Translation by

Dr. Michel Laplace & Cliff Warren

Théo Charlier (1868-1944) worked in France (Paris, Lyon, Marseille), and was a friend of Vincent d'Indy and Charles Bordes, among others. He was born in Seraing-sur-Meuse and studied at the Liège Royal Conservatory. In 1901, he was named teacher at that conservatory. This great musician also led a wind band (Mariemont-Bascoup), founded the *Scola Musicae* in Brussels and was a noted composer (ballets, symphonic pieces, method for the horn in F, and so on). He died in Brussels.

Charlier's studies are in use in most countries, except the USSR. American players often use this book without understanding the related text material, hence this translation.

The first edition was published in 1926. However, we have selected for the present translation the more readily available revised edition (copyright 1946) and have occasionally added phrase markings given by Mr. R. Sabarich at the CNSMP (Paris Conservatory).

First, I have given the title of each study. Next, I have translated the text which appears throughout the book and placed marginal reference numbers which correspond to page numbers of the original book. Where I wish to clarify or give additional information, I placed my own comments in brackets. I did not feel it necessary to translate the numerous notes at the bottom of pages which merely refer the reader to additional studies in other method books.

On behalf of the International Trumpet Guild, I wish to thank Alphonse Leduc & Co. for allowing the publication of this translation. I also wish to thank Denis Egan, Professor of Trumpet at the London College of Music, for his advice, and Clifford Warren for his assistance in preparing the article for publication.

- No. 1 Articulation
- No. 2 Style
- No. 3 Intervals (Thirds)
- No. 4 Style
- No. 5 Articulation
- No. 6 Style
- No. 7 Technique
- No. 8 Intervals (Fourth)
- No. 9 Scherzetto
- No. 10 Rhythm
- No. 11 Fantasia
- No. 12 Modern Study
- No. 13 Prelude
- No. 14 Exercise for the Third Finger
- No. 15 Intervals (Fifths)
- No. 16 Double Tonguing
- No. 17 Intervals (Sixths)
- No. 18 Triple Tonguing
- No. 19 Intervals (Sevenths)
- No. 20 By Combined Movements in Varying Rhythms
- No. 21 Octaves
- No. 22 Various Tonguings
- No. 23 Arpeggios
- No. 24 Throughout the Trumpet Parts of Richard Wagner's Works

- No. 25 Slurs
- No. 26 Chromaticism
- No. 27 Fantasia
- No. 28 Triple Tonguing
- No. 29 Mordent
- No. 30 March
- No. 31 Double Tonguing
- No. 32 Slurring the Harmonics (Lip Slurs)
- No. 33 Triple Tonguing
- No. 34 Rhythmic Fantasia
- No. 35 Study of the Slur
- No. 36 Trills

Foreword

2

Here is a series of thirty-six studies for the soprano valve trumpet, cornet or fluegelhorn which will help the young player who desires to play modern music correctly.

Today, in the orchestra, the trumpeters need great technique as well as good musicianship. Contemporary composers do not think of the difficulties they write. They create it, it pleases them; the performer must play it! No matter which instruments they use, modern ones (in C, B-flat and A) or old ones (in F, E, E-flat, D, and so on), the trumpet player no longer uses tuning crooks as in the past. Because of the lack of time to tune up, crooks would make him always out of tune.

As the valve trumpet is a chromatic instrument like the flute, piano or violin, it is right to expect it to perform the same types of works. Transposition eliminates this inconvenience.

If the student trumpeter wishes to progress and to play easily in all keys, both sharp and flat, he must be prepared to study diligently.

During my career as a player and a teacher, I feel I have experienced many kinds of difficulties which I always formulated into appropriate exercises. I have written them down for my own use as well as to aid my students. They have been found useful enough by many of my friends and previous students that this publication has resulted.

On this request, I collected my manuscripts and selected these thirty-six studies. It is my hope that this volume will be a useful complement to previous teaching books of this kind.

I arranged them as carefully as possible to treat rhythm, staccato [tonguing] and its various aspects, legato and the slur, and a great number of excerpts wishing to use the full capability of the instrument.

I have tried to make the practice of these thirty-six etudes as enjoyable as possible. I thought it to be of interest to include technical and historical notes to inform the student and to give him some pauses.

I hope that my efforts continue to form the technique of young players. My efforts will be greatly rewarded if my work can help them overcome obstacles encountered during their entire careers.

THÉO CHARLIER,
Professor at the Liège Royal Conservatory of Music

Editor's Notes

3

Bringing all our careful attention to this re-edition of the *36 Etudes Transcendantes* of Theo Charlier, we want first to pay homage to the author and to honor the memory of this eminent professor of trumpet who recently died in Brussels.

Theo Charlier, after devoting many years to teaching, particularly at the Royal Conservatory of Liege, has left us in the etudes the fruits of his great knowledge and long experience. This book contains serious difficulties and to master them, one must already possess great technical facility.

Copyright 1926 and 1946 by Alphonse Leduc, Paris

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Without a doubt there are more technical studies—more difficult in terms of rhythm and melody than these provided here. There are also other musical pieces which will introduce the student to the novelties of modern music. But we can assure you that the person who will make an effort and who will apply serious work to this book will have great reward. He will become a virtuoso and a musician.

- (1) This mark **Ψ** is a breath.
 (2) To study articulation, the student also can use: R. Laurent: *Practical Studies*, Study No. 1; Maxime-Alphonse: *New Studies No. 4* (2nd book) (Pub. Alphonse Leduc)

[The following phrase markings were stated by R. Sabarich and are not indicated in the text:

- Line 1, meas. 2 - 3 well sustained
- Line 3, meas. 4 slow down
- Line 4, meas. 1 *descrescendo* on count 3
- Line 6, meas. 1 *crescendo* to count 3
- Line 7, meas. 4 - 5 sustained through count 3
- Line 9, meas. 4 - 5 slow down
- Line 11, meas. 1 *ad lib*
- Line 14, meas. 5 slow down]

Advice To Young Artists

In the orchestra, the player has excellent behavior and does not talk during the performance of a work (except in case of absolute necessity).

He has an instrument in good condition and a good mute which will not alter intonation.

He must not practice excerpts of the work before a performance.

He does not turn over pages of his part noisily, especially during a pause.

He must be in his section on time and must stay there as long as possible during a rehearsal.

He pushes in the slides of his instrument quietly, with the valves down so as not to make noise, because of the air trapped in them. (continued on page 17.)

Avoid the Use of Crooks

Small instruments with cup mouthpieces must not and cannot be rationally used in but one tonality. The change of a crook will make an instrument out of tune. It must be tuned up carefully each time a crook is changed. However, some pieces do not allow enough time to make this possible. Players that use these instruments (trumpets, cornets, bugles) must understand the results of such changes and employ proper replacement slides in difficult passages. Serious attention **always** conquers difficulty which often is nothing apparent. A little practice will give mastery of all that is presented. While awaiting this mastery, to play a single key instrument is good when one uses the set of replacement slides and learns to regulate every slot after knowing the following which is theoretically correct:

1. double the length to the slot of the 2nd valve for the 1st valve
2. triple the length to the slot of the 2nd valve for the 3rd valve

To omit this procedure is a grave error to the point of losing accuracy, not only by the pupil but also the harmony of the entire orchestra.

Table of Harmonics for the Instruments Named Below

Table of chromatic tones possible on the (soprano) trumpet and cornet in C and B-flat¹, the small trumpet in D, and the fluegelhorn

in B-flat¹ from the natural harmonics beginning with the second harmonic and showing all the fingerings.

The fundamental tone (not in use) is not shown in the table.

The seventh harmonic is too low [to be in tune]; except those encircled, which are acceptable because of the valve combinations.

The sounds marked with a (+) are out of tune because of the valve combinations and can be brought in tune by the use of a valve slide (1st or 3rd valve).

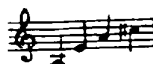
Those sounds enclosed in a diamond are brought in tune by extending the third valve slide. Thus, we must not use the third valve alone.

The eleventh and thirteenth harmonics are exactly between the two tones enclosed in a square: too high for the lower note, too low for the higher note.

- (1) This table of harmonics is made as usual for the writing of these instruments; see p. 35.

Harmonics

Every tone occurring by the simultaneous use of two or three valves is always too high [sharp]. Therefore, it is often better to use the simplest fingering [least number of valves], except for these notes:



which sound in tune in that register and commonly are used with these fingerings [i.e., with the first and second valves depressed rather than with the "simpler" fingering of third valve alone depressed].

Theory of the Instrument

There is no instrument with three valves which is perfectly in tune whenever a valve combination is required to play a note. Here is the reason why: the separate use of each valve elongates the air column so as to lower the pitch: one tone — 1st valve pushed down, half a tone — 2nd valve pushed down, one and a half tones — 3rd valve pushed down.

Here we are in complete agreement [understanding].

But, take a trumpet in B-flat (theoretical length: 1.475 meters) in which the three valves are pushed down to hear *f-sharp* or *c-sharp*. These pitches require a supplementary air column of 0.612 meters. The three valve slides added to the air column, because of the three depressed valves must give us this supplement. But, the 1st valve pushed down gives us a length of 0.181 meter; the 2nd, 0.088 meter; and the 3rd, 0.279 meter. The resulting total is only 0.548 meter. (continued on page 15)

Technique

This study can also be transposed into A-flat or B-flat major.

Theory of the Instrument

[continued from page 13]

It will lack: 0.615 m. minus 0.548 m. equals 0.064 m. The resulting pitches are too high [sharp]. All these out of tune notes are often corrected with the lips. Thus, good intonation is only accomplished with much practice. There are instruments with a movable valve slide attached to the first valve but such instruments are rare. A movable slide on the third valve is commonly in use and gives good results.

Advice to Young Artists

[continued from page 7]

He does not blow forcefully through his instrument to remove the water. It is much better to blow gently and take a little more time.

He has tuned up and adjusted his instrument before the concert. If he tunes up outside the concert hall, he must know the temperature, because the speed of sound increases with heat and decreases with cold, making the instrument sound sharp or flat.

If he must move away from the orchestra to play a call or a solo at a distance it must be remembered that the pitch lowers in moving away. One must know how much to adjust the instrument in advance.

He counts the bars [of rests] carefully, but during the concert he sometimes relies on a good cue. An error is easily made, and a good cue does not lie.

He follows the mood of the conductor. He must be flexible and attentive. He is careful with the required articulations. If this is so, he will be esteemed and well considered.

19 Table of the First 24 Harmonics

The numbers represent the number of divisions of the sound. Only the harmonics up to the 18th are used. However, it is not without interest to know which pitches correspond to harmonics 19, 20, 21, 22, 23 and 24. (See page 11 for harmonics 7, 11, 13 and 14.) The 15th harmonic is too low [flat], and 21, 22 and 23 are not commonly in use.

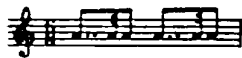
21 The Metronome

(from the Greek *metron* "measure" and *nomos* "rule")

The numbers on the white band behind the pendulum indicate the number of swings it makes in one minute. So 48, 88, 116, etc. indicate that if the moving weight on the pendulum is placed opposite one of these numbers, the pendulum gives 48, 88, or 116 swings in one minute, respectively.

22 Preparatory Study for Solo de Concours by T. Charlier.

(1) Often this rhythm is not correctly played. It is regrettable. It should be played as follows: A) double dot the first note, B) make the 2nd note a thirty-second note, C) give the 3rd note its full value. For example:



This way we can perceive the precise character of this note group. The example given here is hypothetical. It is better to respect the existing writing.

24 [Sabarich indicated the following:

Line 9, meas. 1 give way a little, yield
Line 20, meas. 4 piano, not *mf*]

25 Only the air vibrates through a wind instrument. It can be made of wood, glass or bronze; the tone quality (timbre) is always the same. Victor Mahillon stated that experiments begun around 1846 by Adolphe Sax (a Belgian manufacturer established in Paris) proved that the nature of the inner surfaces [of the tubing] has no effect on the tone quality (timbre). Various timbres are determined by different proportions of tubing and the resulting air column, and by the manner in which the air is set into vibration. A wooden trumpet was constructed for these experiments, and this instrument has the same timbre as a brass trumpet. It is in E-flat and plays the following notes:



Manufacturer C. Mahillon. Museum of the Brussels Conservatory. No. 572 of Volume 1, 2nd edition. Gift of Victor Mahillon.

Transpose into E minor, F minor, G minor and double tongue.

Double Tonguing

*To play this tremolo, cut the air column using one after the other: the 1st, then the 1st and 3rd valves together. Hold down the 1st valve, then use only the 3rd.

Theoretical Length of All the Brass Instruments (natural; with 1, 2, 3, & 4 valves or cylinders)

[Here I give first the French and then the English translation. The reader can then apply this to the entire table. Following the list is the footnote which appears at the bottom of page 31.]

longuer

length [the length is given in meters]

même longueur que le

same length as

8^{ve} dite de 32 pieds

octave of 32 feet

Cors

Horns

Trompettes ordinaires et chromatique

Trumpets natural and chromatic

Ton de La (grave) / (aigü)

Pitch of A (low) / (high)

[It must be noted that the French foot was two centimeters longer than the English foot.]

(1) This trumpet is only "bass" by name. Because of its large bore, it easily plays the lower harmonics; the player reads the part as a cornet player but one octave lower. Wagner uses this same instrument in the pitch of D and C.

No. 17 Intervals (Sixths)

*To get this tremolo, use the fingering shown.

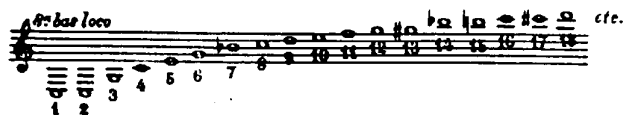
No. 18 Triple Tonguing

(1) This mark [triple tonguing symbol] is a short pause, but shorter than the previous [symbol].

The Accepted Writing for the Small Instruments With a Mouthpiece

We know that every tube produces a group of sounds in which the pitch depends upon the pressure (mouthpiece against the lips). The lips, by way of the breath, cause the air column to vibrate. These resulting pitches (always the same ones, for the same length of tube) are called "harmonics."

Traditionally (and any length instrument [and its corresponding series] may be determined). We note the harmonic series as follows:



Before the creation of the valve in 1814 (neglecting instruments with slides or keys), there were only natural instruments with crooks which gave [only] such harmonics. These do not form the complete [chromatic] scale. To obtain it, we necessarily must have on the main tube a few accessory tubes of various lengths (the valve

coordinated by the valves. Thus, one switches to the column of resonant air necessary to obtain the specific sound [pitch or harmonic series] one desires.

If we do not use the valves, the instrument will only produce the harmonics [itches] listed above.

Because the writing for small instruments with a mouthpiece (little fluegelhorn, little trumpet in D, soprano trumpet in C, B-flat, cornet, fluegelhorn) would require the use of many ledger lines, it is common practice to notate their parts an octave higher.

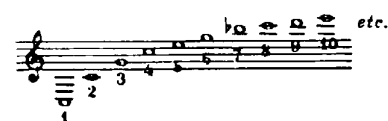
So this musical excerpt must be written:



and will be written,



and, the harmonics are incorrectly written:



because they are one octave higher than the real harmonics.

37 Table of the Tuning Crooks

French
Italian
German

38 No. 20 By Combined Movements and in Varying Rhythms

This study may be transposed a semitone lower.

39 Foreign Terms on the word "mute" and its use

English	French
mute	Sourdine
with mute	Avec Sourdine
put in mute	Mettre la Sourdine
remove mute	Enlevez la Sourdine
	Otez la Sourdine
without mute	Sans Sourdine
mute again	Encore la Sourdine
muted	Bouché

43 Foreign Terms on the words trumpet, cornet, fluegelhorn, etc.

English	French
trumpet	trompette
trumpets	trompettes
keyed trumpet	trompette à clefs
cornet	cornet à pistons
fluegelhorn	bugle
keyed bugle	bugle à clefs
valve trumpet	trompette à pistons
bass trumpet	trompette basse
little trumpet in D	petite trompette en ré

No. 24. 21 Throughout the Trumpet Parts of Richard Wagner's Works

46

- (1) The Alpine Horn is usually played on the muted trumpet in the wings.

[The great Wagnerian Reginald Goodall agrees with Mr. Egan that it is the theme used in the fight scene at the end of Act II in *Die Meistersingers*. The name "bastonads" is not accurate. (M.L.)]

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

- (1) Rhythm is the order and the proportion in the beat. (Vincent d'Indy)

"A well understood work, as short as it can be, is more useful than many hours of studies badly directed." J.B. Arban

Lengths of the Instruments

57

trumpet in B-flat	= 1.475 m.
cornet	= same
fluegelhorn in B-flat	= same
bugle	= same
[natural] calvary trumpet	
in E-flat	= 2.211 m.
calvary bass trumpet	= 4.422 m.

- (1) In this study the tempo remains the same, even though it employs simple, double, or other compound meters.

Classification of the Instruments with a Mouthpiece (from Victor Mahillon)

59

The timbre is due only to the proportions of the tube and the resulting affects on the air column.

Horn: narrow tubing and conical bore. Smooth timbre.

Cornet: narrow tubing and a less conical bore than that of the horn. Smooth timbre, but sharper than the horn.

Trumpet: narrow tubing and cylindrical bore over a great part of the length. Ringing timbre.

Trombone: which means long trumpet. Same form of tube and same timbre.

Fluegelhorn: Large tubing and conical bore. Mellow timbre.

Alto fluegelhorn	} Saxhorn family
Baritone	
Tuba	
Bombardon	

The Trumpet in E-Sharp

61

In the theater, we sometimes read: "trumpet in B-sharp" or "trumpet in E-sharp." The composer (Auber in *Fra Diavolo*, Meyerbeer in *The Huguenots*, Rossini in *William Tell*) only means to use the trumpet in E or the trumpet in B. In writing that strange "sharp," he specifies that the tonality is full of sharps. These indications are very rare.

Transposition is a trumpeter's speciality; as quickly as possible, he absolutely must accustom himself to transposing. He must do it every day. It can be beneficial to go back to some of the previous lessons and transpose them a tone higher, then a tone lower, and so on. The perfect fourth (tritone) and perfect fifth higher are of frequent use for those who play in orchestras on the trumpet in B-flat. Of course, the student must accustom himself to every kind of transposition.

63

Timbre

The brilliant tone of the trumpet is due to its almost completely cylindrical air column; this effect is increased by the cup shape of the mouthpiece.

69

The Slide

Originally, the valve tubes were of fixed lengths. Such an instrument could be crooked to different keys; if it was, it became horribly out of tune.

Around 1830, Meifred, valve-horn teacher at the Paris Conservatory (CNSMP), created the movable tubes, called slides. These made it possible to correct each valve slide length for each corresponding crook used.

[Meifred, Pierre-Joseph Emile (1791-1867). Dauprat's student. Hornist in the Paris Opera (1822-1850). Founding member of the noted *Société des Concerts du Conservatoire*. (M.L.)]

70

- (1) We must play this trill with the lips, keeping the two first valves pushed down.

Rules and Exceptions

If the trumpeter must use an instrument in only one key, some difficult passages will be encountered. Here is an example which is found in the Allegro of the overture to *William Tell*:

Trumpet in E

All: vivace



and another excerpt from the end:



as well as other examples of this kind, mostly from the parts for trumpet in E (see p. 61). To play these excerpts on a trumpet in B-flat, one must play an augmented fourth higher, which is quite difficult in a lively tempo. It would be much easier to play these passages with all three valves pushed down, after having carefully pulled out the movable slides on the 1st or 3rd valve to tune up the instrument [harmonics] with [those of] the trumpet in E (the result of lowering the pitch by a diminished fifth with the three valves). Thus, he would be playing the written notes like an open trumpet in E, with no need for other fingerings, the instrument now being a natural trumpet in E.

Likewise, it is possible to play the parts written for a trumpet in F by depressing the 1st and 3rd valves, and pulling out the movable slide on the 1st or the 3rd valve.

It is just the same for those of you using crooks; if you put in the A crook, playing with the three valves pushed down and having correctly pulled out the moving slide, you get a natural trumpet in E-flat.

I only recommend this possibility to play military calls or other music of special character.

72

The Mouthpiece

The mouthpiece has four principal parts: 1) the rim, 2) the cup, 3) the throat, 4) the backbore.

The cup generates the sound, and it must be proportional to the air column. If it is too deep, it lowers the high register. In the contrary case, it raises it.

The mouthpiece must be the one accompanying the trumpet in the case at purchase or be of the same size, except for the rim which can vary with the lips and teeth of each individual.

The tone quality depends upon the flexibility of the pressure of the lips against the mouthpiece, which must not be forced, or the pressure will not be accurate for the right dividing of the air column. To get a clean sonority, we must avoid pressing the mouthpiece too strongly against the lips or blowing too strongly, which will stop the production of the sound.

To use the same mouthpiece to play all the instruments (fluegelhorn, cornet, trumpets in F or C) with a mouthpiece for trumpet in B-flat, for example, is a great error. The result is that the harmonic resonance is thrown out of equilibrium because of the irregularities caused by disproportional tubing.

"Experience has proven that there is no greater handicap for artists wanting to play various instruments than to change the rim of the mouthpiece. The only way to get a good mouthpiece is for the artist to accustom himself, through study and practice, to the one of our manufacture. In this way, the lips gain flexibility and elasticity vibrating under the action of the pressure coming from the use of rims of the same form and diameter. This cannot be achieved if one continuously uses various mouthpieces with different vibrating contours," says V. Mahillon, manufacturer of musical instruments, librarian of the Museum of the Brussels Royal Conservatory, and eminent scientist of acoustics.

The Mute

72

Today the mute is an indispensable accessory. Like a mouthpiece, an artist must always carry one with him. It is a restricting cone which is inserted into the bell of the instrument to diminish the power of the sound and give it a kind of shimmering smoothness.

In the orchestra, the mute can produce unique sounds with strange and unexpected timbres.

Fétis [Francois Joseph Fétis (1784-1871) unfortunately allows his judgement to be biased by passion or interest. His dates are often wrong, and there are mistakes. In fact, it is de Pontécoulant (*Organographic*) who credited Lebrun with the invention of a mute. (M.L.)] stated, "It was Lebrun [Jean Lebrun was born in Lyon on April 6, 1759, died in Paris, in 1809. "A virtuoso remarkable for the accuracy of his execution, the purity of his tone and his unusual command of the highest notes." (C.R.M.P., *Grove's Dictionary*, 5th ed., vol. IV, p. 372.) (M.L.)] (near the end of the 18th century), French hornist, active in the Berlin Court Orchestra [from 1793 to 1806 (M.L.)], who was the first to think of using a perforated, conical cardboard box to get echo effects." However, the mute was previously known. As early as 1636, we can read about it in Mersenne's book. To my knowledge the earliest composition requiring the trumpet mute is Claudio Monteverdi's *Orfeo*, which was played at the court of Mantua in 1607. It has an overture ("toccata" for five trumpets with mute) in which the parts are indicated: *clarino*, *quinto*, *alto e basso*, *vulgano*, and *basso*." These five parts were written for natural instruments producing only the harmonics. It is interesting to note that Monteverdi wrote these parts a tone lower than the pitch of the work, because the mute of that time raised the pitch a full tone. In the original part we can read: "*un clarino con tre trombe sordine*."

Later, Mozart indicated the use of the mute in his trumpet parts. With Wagner, the mute came back and is now a regular accessory in the orchestra. If in the old days it was in use in operas and funeral ceremonies, it is very much in use today and produces piquant effects.

The present-day mute is made of brass, wood, cardboard or various other materials. The best one, of course, is one which does not disturb the tonality in the complete range, but it is difficult to find. The accessory must be perfect.